

EVALUATION OF RESIDENTIAL-BASED ARCHITECTURAL FIRM FACILITIES TOWARDS REDESIGNING: A CASE STUDY OF SOUTH WEST NIGERIA

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ABSTRACT

The issue of home-based offices in architectural practices has become a new trend in Nigeria. Unfortunately, most of the residences available for such practices are not purpose-built. This development opened up new challenges to the personal and professional lives of Architects. The study thus assessed the facilities currently available for use to serve both the home and office with a view to evolving a purpose-built building facility for the home-office architectural practice. Cross-sectional survey design was adopted. Purposive sampling method was used to select the 6 capital cities in South-West Nigeria due to concentration of architectural firms there. Additionally, snow-ball approach was employed to identify 72 Architects and 78 intending Architects in the 65 practicing firms. Results revealed that 62% operated out of private homes built exclusively for dwelling with 40% being detached bungalow house types with the highest room numbers, 47% being within 5 to 6 rooms while 40% served primarily as architectural firms. 57% of members of staff would prefer to stay for work overnight, while 43% currently do not. There are different forms of offices based on preference and include; the home offices, the virtual offices, co-working spaces, rental offices and leased offices. The study also gathered that though the residential facilities available for use were good enough, they were not adequate for professional practice. The study concluded that there is need for proper functional space planning to facilitate bonds and enhance effectiveness in the practice.

Keywords: *Architect; Resident; Firm; Facilities; design; South-West; Nigeria*

INTRODUCTION

The emergence of the Architect entrepreneur marked the period after the Second World War (Symes *et al.*, 1996), with the design team seeing itself as a business organization providing services in the marketplace. The business aspect of the architectural firm makes it an organization accompanied by some bureaucratic features. Bunham (1988) however noted that design has always been a small part of the practice of architecture, with other tasks like technical development, management, business and supervision taking more of the Architect's time. Increasing exposure of architectural practice to market forces has, according to Symes *et al.*, (1996), led to a shift away from the Architect as a team leader to managing the growth of varied specializations and placing importance on management techniques so as to help the firms adapt to changing circumstances. They suggested that this increased exposure to market forces led architectural firms to pay more attention to business to survive. The practice of architecture in Nigeria went through the architect-user and master-builder stages. Arayela (2001), Oladiti and Adeoye (2017) noted that the establishment of the Architectural practice in Nigeria dated back to the founding of University

College, Ibadan, in 1948 as an affiliate of London University, when Maxwell Fry and Jane Drew (two British Architects) were commissioned to prepare master plans and design the buildings. About the same time, Watkins Gray and Partners were also commissioned to design the University College Hospital. Expatriates dominated the scene until between 1958 and 1960 when two Nigerian owned architectural firms; Oluwole Olumuyiwa and Associates, and Ekwueme and Associates joined the scene respectively. By 1967- 1968, only eight out of the 20 existing Architectural firms were owned by Nigerians. They were owned by the first set of Nigerian Architects, who included late Michael Olutusen Onafowokan, a product of Public Works Department Training School, (1938) and Glasgow University of Architecture (1947); late Oluwole Olumuyiwa (Manchester University graduate, 1954); late Alex Ekwueme (Washington University graduate, 1956); late Frank Mbanefo (Municipal College, England, 1956); and late Adedokun Adeyemi (Manchester University graduate, 1954). Arayela, (2001) however noted that the setting changed when Ahmadu Bello University graduated the first set of Bachelor of Architecture graduates in 1963 and these graduates

began to set up architectural practice in 1965 with the others to form practices such as Folabi Kuku and Associates, Danladi Shemu and Associates, Modulor Group and Allied Architects. The register of the Nigerian Institute of Architects has shown an increase in the number of architecture firms from 38 in 1973, 116 in 1978, and 286 in 1998, to 444 in 2004. There however appears to be a reduction in the number of architectural firms in 2006, which listed 341 firms. This was due to the fact that the names of firms that defaulted in the payment of their dues were not listed in any section when compared to the previous registers. As at 2013, the number of registered architectural firms in Nigeria currently stood at 876 firms (ARCON, 2014), while the total number of registered Architects is 4,744 Architects (NIA, 2017). The practice of architecture in Nigeria has not been without challenges, Abdulkarim, (2002) noted that there had been economic fluctuations in the industry, which resulted in the cyclical nature of the industry. Sagada (2002) stated that architectural services industry had also become increasingly competitive because of an increase in the number of practices which contended for the few jobs, as well as the infringement of allied professions on the roles of the Architect. With these challenges, many Architects decided to have their independent practices so as to cut down on costs, utility bills and expenses with many setting up their firms in their homes. Due to these residences not being purpose

built, several factors challenged its existence. Since the economy is the new reality many Architects now face, their houses need to be evaluated to check how well it indeed meets the needs and functions of the occupants and where changes need to be effected. The study thus, assessed the facilities in existing residential based architectural firms with a view to redesigning a purpose built Architectural-cum-residential firm in south west, Nigeria, and this was achieved by taking inventory of existing residential-based architectural firms in the study area; examining the functionality of both residential-architectural firms and purpose- built-architectural firms in the study area and analysing the views of Architects on the acceptability of workspaces in residences. Also assessing the type of facilities needed to complement the existing facilities; and designing a befitting architectural-cum-residential firm for an Architect.

METHODOLOGY

Study Area

The study was carried out in the six capital cities in South-West Nigeria. South-West Nigeria is one of the six geopolitical zones of Nigeria, consisting of the following states; Ekiti, Lagos, Ogun, Ondo, Osun and Oyo. Study area comprising of South Western states of Nigeria as shown in Figure 1.



Figure 1: Study area comprising of South Western states of Nigeria, Source: Adapted from Ojo & Olawale (2014)

Research Design

For the study, both qualitative and quantitative research designs of cross-sectional survey to explain each of the many variables included was employed in this study. For quantitative research structured questionnaire was adopted as instrument, while for qualitative research instrument relied on key information obtained from Architects currently operating a residential architectural firm in Southwest Nigeria and the intending Architects

working with them. According to the Architects Registration Council of Nigeria (ARCON, 2013), there are 329 registered architectural firms in southwest Nigeria having about 40 percent of the total population of 4,744 Registered Architects in Nigeria working there (NIA, 2017).

Sampling Frame and Technique

The sample frame for the study consisted of all operating residential architectural offices in Southwest Nigeria. There are currently 876 registered architectural firms in Nigeria with 329 being from the six states of the Southwest region (ARCON, 2014). The arrays of methods used for this study include; to first select all capital cities of the South-West purposively, these are six cities in all and they include Ado Ekiti, Ikeja, Abeokuta,

Akure, Osogbo and Ibadan. The second stage identified and enumerated Architects operating residential-architectural firms in these capital cities using the snow-ball approach; there are seventy-two (72) Architects. In the last stage, all the residential-architectural firms totalling sixty-five (65) firms in all were sampled (Table 1).

Table 1: Distribution of Residential Architectural Firms in Southwest Nigeria

State Capitals	Ado-Ekiti	Ikeja	Abeokuta	Akure	Osogbo	Ibadan	Total
Number of residential-architectural firms	7	12	5	19	15	7	65

Source: Authors Compilation

Sample Size

A total of 65 residential-architectural firms with 150 architects were identified. Each firm has at least a

principal Architect, some had two principals, and some had an intending Architect or more under their pupilage while others operate a solo practice (See Table 2).

Table 2: Distribution of Categories of Architects in Residential-Architectural Firms

	Number of Firms	Number of Principal Architects	Number of Intending Architects	Total
Ado-Ekiti	7	7	8	15
Ikeja	12	14	11	25
Abeokuta	5	5	-	5
Akure	19	22	28	50
Osogbo	15	17	28	45
Ibadan	7	7	3	10
Total	65	72	78	150

Source: Authors Compilation

Method of Data Collection

For the study these methods were used to collect data:

- Interview Technique: A personal interview is a direct face –to- face conversation between the interviewer and the respondent suited for small sample population with narrow geographical spread (Bernard, 2000). For the study, questions were asked to get information on office space satisfaction, work flow in the spaces; organizational spacing amidst others was asked.

- Administration of Structured Questionnaire: Questionnaire is an instrument that can be used to observe data beyond the physical reach of the observer (Leedy, 1997). For the study, structured questionnaires were used in obtaining information from practicing Architects and intending Architects. The questionnaires were designed to give an assessment on current workspace satisfaction and perception from the users` view point. The data collected were analyzed using both descriptive and inferential statistics.

Method of Data Analysis

The data were processed from the questionnaires using Statistical Package for Social Scientists (SPSS) package. The results from the analysed data were summarized and presented in tabular forms, pie chart and bar charts, which is called descriptive analyses to get values such as mean, percentages, frequencies

distribution table, standard deviation among others. The summary of the research log frame showing the objectives for the study, the type of data needed, and the instrument for collecting it and the method of analysing such data were as presented in Table 3.

Research Log Frame

Table 3: Research Log Frame; Details of Measurement and Data Analysis

S/N	Objectives	Types and sources of Data	Instrument	Method of Analysis
1.	Taking inventory of existing residential architectural firms in the study area.	Primary Data	Observation	Frequency count charts and cross tabulation.
2.	Analysing existing purpose-built residential architectural firms in the study area.	Primary and Secondary Data	Observation	Content Analysis
3.	Examining both residential architectural firms and purpose built architectural firms in the study area.	Primary and Secondary Data	Questionnaires and Observation	Charts, Content Analysis
4.	Analysing the views of Architects on the acceptability of their workspaces in their residences.	Primary and Secondary Data	Questionnaires and Observation	Charts, Content Analysis
5.	Assessing Architects' satisfaction with the facilities available to them in residential architectural firms.	Primary Data	Questionnaires and Observation	Frequency counts, cross tabulation, percentages etc
6.	Assessing existing facilities and the facilities needed to complement them	Primary Data	Questionnaires administration and observation in the study areas.	Descriptive statistical tools; frequency counts, cross tabulation etc
7.	To propose a residential architectural firm in Iyana Church, Ibadan.	Primary and Secondary Data with Design	Case Studies	Sketches and Content Analysis

Source: Authors Compilation

RESULTS AND DISCUSSION

Housing Characteristics of Respondents

The housing characteristics of respondents were as presented in Table 4.

Age of Building

The analysis from the study revealed that 20 (13%) of the total respondents house was aged above 50years, 40 (28%) of the total respondents operate in buildings that are aged between 50 and 30 years, 50 (33%) of the total respondents operate in buildings whose age was between 30 and 20 years, 5 (3%) of the respondents operate in buildings between the age of 20 and 10 years and 35 (23%) of the respondents operate in buildings whose age is less than 10 years (Table 4). This is an indication that most respondents operate out of buildings that are not new.

Mode of Building Acquisition

The study revealed that 40 (62%) of the building were Self –built, 15 (23%) of the buildings were purchased, 10 (15%) of the buildings were other means of acquisition among which were inheritance, gift while most of the private buildings were self-built as indicated in Table 4.

Number of Rooms

Twenty (20) representing 13 percent of the respondents have between 1 and 2 rooms in their building, 25 representing 17 percent of the respondents have between 3 and 4 rooms in their building, 70 representing 47% of the respondents have between 5 and 6 rooms and 35 representing 23 percent have 7 rooms and above. In average, most respondent's buildings have 5 to 6 rooms as indicated in Table 4.

House Ownership

Out of the total of 150 buildings assessed, 55 (37%) were rented apartments, 25 (16%) were family houses, 5 (7%) were government owned houses and 65(40%) were privately owned homes. A larger percentage of the people live in private buildings as shown in Table 4.

Housing Unit Typology

A total of 25 (19%) of the houses were Brazilian face to face, 55 (40%) are detached bungalow, 5 (4%) were semi-detached bungalow, 45 (33%) were block of flats, and 5 (4%) were duplex (see in Table 4). Most of the buildings occupied by respondents are detached bungalows; this might be due to the privacy offered by them.

Mode of Rent Payment

Out of the total 110 that responded to the question, 10 (9%) respondents paid rent weekly, 10 (9%) paid their rent monthly, 25 (23%) paid their rent bi-annually and 65 (59%) paid their rent annually as indicated in Table 4. This is also expected as the housing system in Nigeria favours the payment of house rents annually.

TABLE 4: HOUSING CHARACTERISTICS OF RESPONDENTS

Source: Authors Compilation

		Ado-Ekiti		Ikeja		Abeokuta		Akure		Osogbo		Ibadan		Total	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Building Age	> 50	0	0	10	100	0	0	5	100	5	100	0	0	20	100
	50-30	5	100	15	100	0	0	15	100	0	0	5	100	40	100
	30-20	5	100	0	0	5	100	20	100	15	100	5	100	50	100
	20-10	0	0	0	0	0	0	0	0	5	100	0	0	5	100
	< 10	5	100	5	100	0	0	10	100	15	100	0	0	35	100
Total		15	100	30	100	5	100	50	100	40	100	10	100	150	100
Mode of Building Acquisition	Self-built	5	100	5	100	5	50	10	67	10	40	5	100	40	62
	Purchase	0	0	0	0	5	50	5	33	5	20	0	0	15	23
	Inheritance	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Others	0	0	0	0	0	0	0	0	10	40	0	0	10	15
	Total	5	100	5	100	10	100	15	100	25	100	5	100	65	100
Number of rooms	1-2 rooms	0	0	15	60	0	0	5	10	0	0	0	0	20	13
	3-4 rooms	0	0	10	40	0	0	5	10	10	22	0	0	25	17
	5-6 rooms	5	33	0	0	5	100	25	50	30	67	5	100	70	47
	>7 rooms	10	67	0	0	0	0	15	30	5	11	5	100	35	23
	Total	15	100	25	100	5	100	50	100	45	100	10	100	150	100
House Owner-ship	Rent	5	50	10	40	5	25	15	37	20	36	0	0	55	37
	Family house	0	0	0	0	0	0	10	26	10	18	5	50	25	16
	Government House	0	0	0	0	5	25	0	0	0	0	0	0	5	7
	Private	5	50	5	60	10	50	15	37	25	46	5	50	65	40
	Total	10	100	15	100	20	100	40	100	55	100	10	100	150	100

Housing Unit Typology	Brazilian	5	100	5	100	0	0	10	100	0	0	5	100	25	19
	Detached Bungalow	5	100	5	100	0	0	20	100	20	100	5	100	55	40
	Semi-detached bungalow	0	0	0	0	0	0	0	0	5	100	0	0	5	4
	Block of flats	0	0	5	100	5	100	15	100	20	100	0	0	45	33
	Duplex	5	100	0	0	0	0	0	0	0	0	0	0	5	4
	Others	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	15	100	15	100	5	100	45	100	45	100	10	100	135	100
Mode of Rent Payment	Weekly	0	0	0	0	0	0	5	12	5	13	0	0	10	9
	Monthly	0	0	0	0	0	0	5	13	5	12	0	0	10	9
	Bi-annual	0	0	0	0	0	0	10	25	10	25	5	50	25	23
	Annual	10	100	5	100	5	100	20	50	20	50	5	50	65	59
	Total	10	100	5	100	5	100	40	100	40	100	10	100	110	100
Amount of Rent payment per annum	< N50000	0	0	0	0	0	0	5	17	5	14	0	1	10	13
	#50001-#100000	0	0	5	100	0	0	10	33	5	14	5	100	25	30
	#100001-#200000	5	100	0	0	0	0	15	50	20	58	0	0	40	50
	#200001-#300000	0	0	0	0	0	0	0	0	5	14	0	0	5	7
	> #300001	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	5	100	5	100	0	0	30	100	35	100	5	100	80	100
Value of house/Building	< #5000000	0	0	0	0	0	0	10	100	5	100	5	100	20	29
	#5, 000,000 - #10,000,000	0	0	5	100	0	0	0	0	10	100	0	0	15	21
	#10,000,000-15,000,000	5	100	0	0	0	0	10	100	10	100	0	0	25	36
	#15,000,000-#20,000,000	0	0	0	0	5	100	0	0	5	100	0	0	10	14
	Total	5	100	5	100	5	100	20	100	30	100	5	100	70	100

Annual Rent Payment

The analysis of the payment of the annual rent revealed that 40 (50%) paid between #100001 and #200000, 25 (30%) paid rent between #50001 and #100000, 10 (13%) paid below #50000 and 5 (7%) paid between #200001 and #300000). Thus majority of the users of the buildings paid between #100,001 - #200,000 as house rent in the study area.

Cost of the House/ Building

Of the total 70 respondents that responded to this question, 20 representing 29 percent valued their building below #5 million, 15 (21%) valued their building between #5 million and #10 million, 25 (36%) of the respondents valued their building between #10 million and #15 million, 10 (14%) valued their building between #15 million - #20 million.

Mode of Payment of acquiring the building

Out of the total 65 buildings, 40 (62%) made an outright payment for its acquisition, 25 (38%) of the respondents made payment in instalments as seen in Table 4.

Workplace Characteristics of Respondents

Information on the work place characteristics of respondents are as presented in Table 5

Workplace Description

It was revealed that 60 (40%) out of the total respondents worked in architectural firms, 20 (13%) worked in architectural firms with a focus on construction, 25 (17%) worked in architectural firms with a focus on interior design, 10 (7%) worked in architectural firms with a focus on furniture making and 35 (23%) worked in other types of establishments. The study revealed that most of the respondents work in architectural firms and thus are knowledgeable and are most likely to give genuine information about the study at hand as shown in Figure 2.

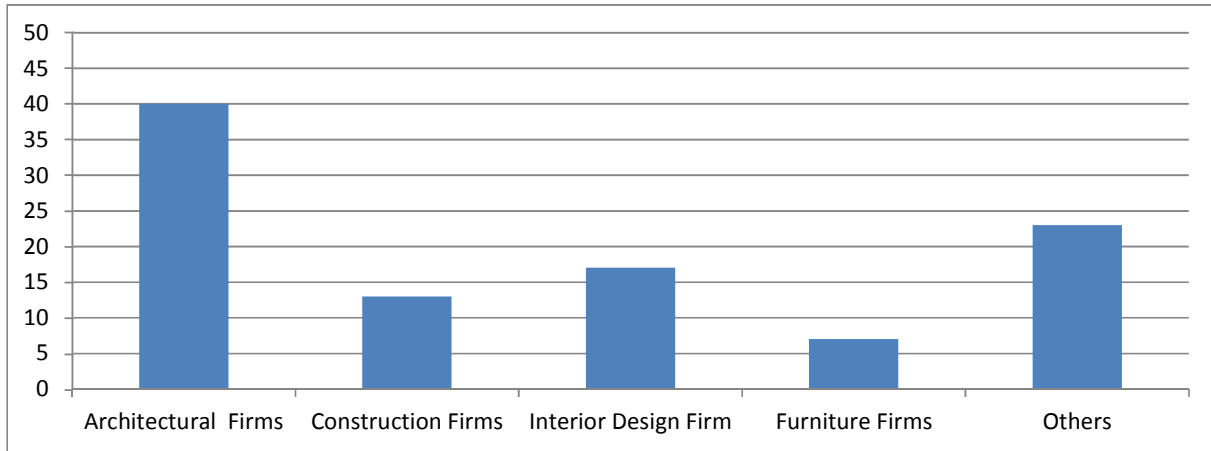


Figure 2: Workplace Description Source: Authors Compilation

Company Staff Strength

The analysis from the study revealed that 30 (27%) of the respondents that responded to this question worked in a company of staff strength between 2 to 5 people, 35 (32%) worked in a company with a staff strength of between 6 to 10 people, 25 (23%) worked in a company of staff strength between 11 and 15 people, staff strength between 16-30 has no staff, 10 (9%) worked in a

company of staff strength between 31 and 50 people and 10 (9%) of the respondents worked in the company with a staff strength of 50 and above (Figure 3). Only Ikeja and Akure have more than 50 respondents in their employ. This implies that most firms are out to cut cost by reducing the number of staff in their workforce (Figure.3).

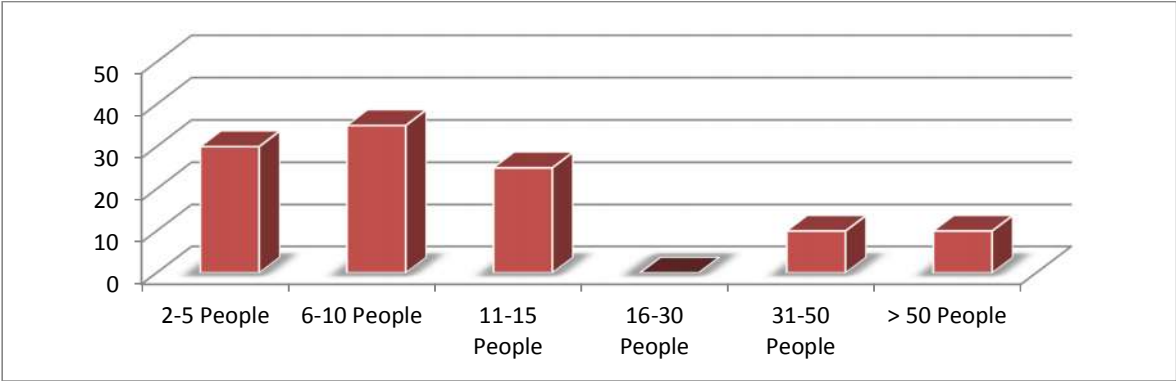


Figure 3: Company Staff Strength Source: Authors Compilation

TABLE 5: WORKSPACE CHARACTERISTICS OF RESPONDENTS

		Ado-Ekiti		Ikeja		Abeokuta		Akure		Osogbo		Ibadan		Total	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Workplace Description	Architectural Firm	0	0	15	60	0	0	20	40	25	56	0	0	60	40
	Construction Firm	5	33	0	0	5	100	5	10	5	11	0	0	20	13
	Interior design firm	5	33	5	20	0	0	10	20	5	11	0	0	25	17
	Furniture firm	0	0	5	20	0	0	0	0	0	0	5	50	10	7
	Others	5	33	0	0	0	0	15	30	10	22	5	50	35	23
	Total	15	100	25	100	5	100	50	100	45	100	10	100	150	100
Staff strength	2-5 people	0	0	0	0	0	0	10	40	15	42	5	100	30	27
	6-10 people	0	0	10	33	5	50	10	40	10	29	0	0	35	32
	11-15 people	5	50	10	33	0	0	0	0	10	29	0	0	25	23
	16-30 people	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	31-50 people	0	0	5	17	5	50	0	0	0	0	0	0	10	9
	>50 people	0	0	5	17	0	0	5	20	0	0	0	0	10	9
	Total	10	100	30	100	10	100	25	100	35	100	5	100	110	100
Ratio of Single to Married	1:1	0	0	0	0	10	100	0	0	0	0	0	0	10	11
	2:1	10	100	10	67	0	0	0	0	5	25	5	100	30	33
	3:1	0	0	5	33	0	0	15	50	15	75	0	0	35	39
	4:1	0	0	0	0	0	0	10	33	0	0	0	0	10	11
	3:2	0	0	0	0	0	0	5	17	0	0	0	0	5	6
	Total	10	100	15	100	10	100	30	100	20	100	5	100	90	100
Hours worked per day	7 hours	0	0	0	0	5	100	15	30	10	22	5	50	35	23
	8 hours	10	67	20	80	0	0	15	30	20	44	0	0	65	44
	9 hours	0	0	0	0	0	0	0	0	10	22	0	0	10	7
	10 hours	5	33	0	0	0	0	10	20	0	0	5	50	20	13
	>10 hours	0	0	5	20	0	0	10	20	5	12	0	0	20	13
	Total	15	100	25	100	5	100	50	100	45	100	10	100	150	100
Type of building firm occupies	Purpose built office	0	0	5	20	0	0	10	20	25	56	0	0	40	27
	Converted Residence	5	33	5	20	0	0	0	0	5	11	0	0	15	10

	Rented office complex	5	33	5	20	5	100	15	30	10	22	5	50	45	30
	Others	5	33	10	40	0	0	25	50	5	11	5	50	50	33
	Total	15	100	25	100	5	100	50	100	45	100	10	100	150	100
Frequency of stay overnight at firm	Never	0	0	20	80	0	0	15	30	15	33	0	0	50	33
	Once a week	0	0	0	0	0	0	5	10	0	0	5	50	10	7
	Twice a week	5	33	5	20	5	100	0	0	10	22	0	0	25	17
	Thrice a week	5	33	0	0	0	0	10	10	5	12	0	0	20	13
	Others	5	33	0	0	0	0	20	40	15	33	5	50	45	30
	Total	15	100	25	100	5	100	50	100	45	100	10	100	150	100
Frequency of overnight work	Daily	10	67	15	75	0	0	30	100	5	100	5	100	65	43
	Once a week	0	0	0	0	0	0	10	100	20	100	0	0	30	20
	Twice a week	0	0	0	0	5	50	0	0	5	100	0	0	10	7
	Thrice a week	0	0	0	0	0	0	10	100	5	100	5	100	20	13
	Others	5	33	5	25	5	50	0	0	10	100	0	0	25	17
	Total	15	100	20	100	10	100	50	100	45	100	10	100	150	100
Preference to work overnight	Office	10	67	5	20	5	100	35	78	15	38	10	100	80	57
	Home	5	33	20	80	0	0	10	22	25	62	0	0	60	43
	Total	15	100	25	100	5	100	45	100	40	100	10	100	140	100
Preference on acceptability of Office Accommodation	Office	10	67	5	20	5	100	35	78	15	38	10	100	80	57
	Home	5	33	20	80	0	0	10	22	25	62	0	0	60	43
	Total	15	100	25	100	5	100	45	100	40	100	10	100	140	100

Source: Authors Compilation

Ratio of Single to Married People

The study established that 10 representing 11.1% of the company had one single staff to one married staff, 30 representing 33.3% of the company has for every two single staff one married staff, 35 representing 38.9% of the company has for every three single staff one married staff, 10 representing 11.1% of the company has for

every four single staff one married staff and 5 (5.6%) of the companies has for every three single staff two married staff as shown in Figure 4. This implies that the number of single staff is greater than the number of married staff.



Figure 4: Ratio of Single to Married People, Source: Authors Compilation

Working Hours per Day

Of the total respondents, 35 (23%) of them worked for 7 hours a day, 65 (44%) of them worked for 8 hours a day, 10 (7%) worked for 9 hours a day, 20 (13%) of the respondents worked for 10 hours a day and 20 (13%) of

the respondents worked for more than 10 hours and above (Table 5). From this the duration of hours that workers spent at their work places was between 7 hours and 8 hours a day at their (Figure 5).

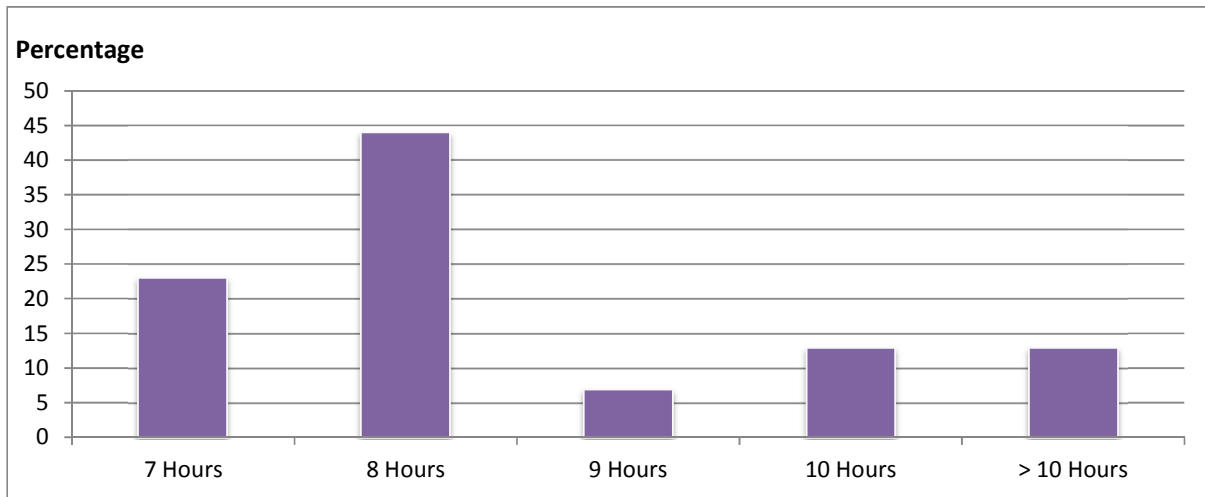


Figure 5: Working Hours per Day, Source: Author’s Compilation

Building Type Occupied by Firm

Out of the total, 40 (26.7%) of the buildings were purpose built office, 15 (10.0%) were converted residential, 45 (30%) were rented office complex, while 5 (3.3%) of the buildings were others (Figure 6). Most of the buildings were rented office complex.

respondents usually spend one night in a week, 25 (16.7%) usually spend two nights in a week, 20 (13.3%) usually spend three days in a week and 45 (33%) spend some other nights at work. Thus it could be deduced that most of the respondents never spent their night at office (Table 5). This might be due to the fact that spending the night at the office with the facilities currently available for use was not as comfortable as their spending it at their personal abodes or homes.

Respondents Frequency of Stay Overnight at Firm

Analysis revealed that 50 (33.3%) of the respondents never spent their night at work, 10 (6.7%) of the

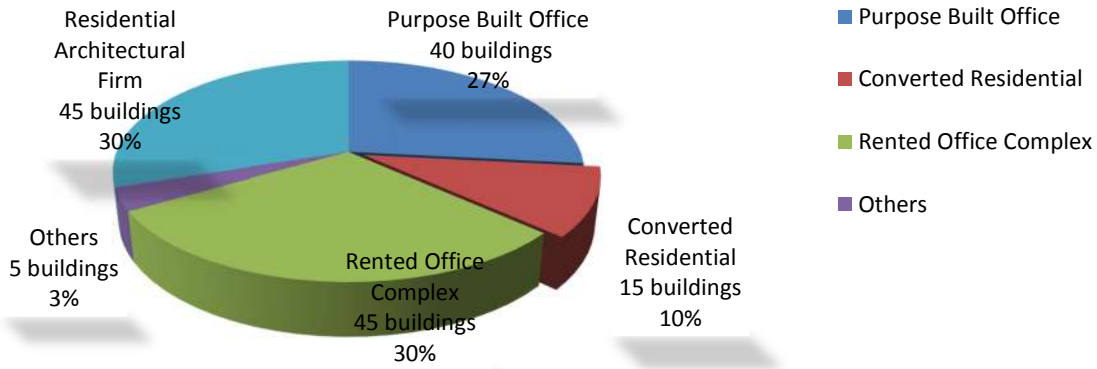


Figure 6: Building Type Occupied by Firm, Source: Authors Compilation

Respondents Length of Work Overnight

Information obtained showed that 65 (43.3%) works overnight on a daily basis, 30 (20%) works overnight just once in a week, 10 (6.7%) of the respondents works overnight twice a week, 20 (13.3%) works overnight thrice a week. (Table 6) This implies that most of the respondents work overnight at the comfort of their homes.

Overnight Work Preference

Out of the total respondents 80 (57%) of them would prefer to work overnight from their offices, 60 (43%) would prefer to work overnight from their homes (Figure 6). This might be so because office will provide a more work related environment and enhance performance compared to working overnight at home.

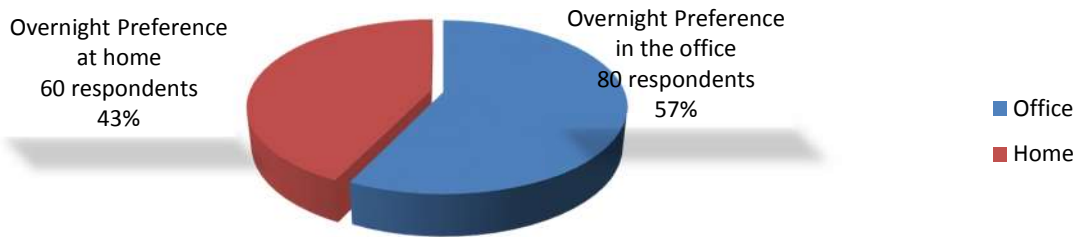


Figure 6: Overnight Work Preference, Author’s Compilation

Preference on Acceptability of Office Accommodation

Out of the total respondents that responded to this question, 80(57%) respondents agreed that they would

prefer an accommodation in an office while 60(43%)respondents disagrees that they would prefer an accommodation provided in an office (Table 5). The difference in choices was 14%.

Facilities available in Residential-Based-Architectural Firms

According to the respondents, Entrance porch, Sitting Rooms, dining room, kitchen, study, store,studio,

clients’ meeting space, staff living quarters and office were all available in their residential –based-architectural firms while facilities such as, laundry and garage were not available in their residential-based-architectural firms.

Table 6: Facilities available in Residential-Based-Architectural Firm

S/N	Facilities	Available	Not Available	Total
1.	Entrance Porch	115 (76.7%)	20 (13.3%)	135 (100%)
2.	Sitting Room	75 (50%)	70 (46.7%)	145 (100%)
3.	Dining Room	85 (56.7%)	65 (43.3%)	150 (100%)
4.	Kitchen	80 (53.3%)	65 (43.3%)	145 (100%)
5.	Laundry	55 (36.7%)	75 (50.0%)	130 (100%)
6.	Guest Room	70 (46.7%)	70 (46.7%)	140 (100%)
7.	Study	105 (70.0%)	35 (23.3%)	140 (100%)
8.	Store	130 (86.7%)	20 (13.3%)	150 (100%)

Source: Authors Compilation

9.	Garage	55 (36.7%)	85 (56.7%)	140 (100%)
10.	Studio	100 (66.7%)	50 (33.3%)	150 (100%)
11.	Client Meeting Space	90 (60.0%)	50 (33.3%)	140 (100%)
12.	Staff Living Quarters	100 (66.7%)	50 (33.3%)	150 (100%)
13.	Office	125 (83.3%)	25 (16.7%)	150 (100%)

Physical Conditions of Residential-Architectural Firms

Analysis of physical conditions of residential-architectural firms revealed that 140 (93.3%) of the respondents agreed that the physical condition of the unit is good, 130 (86.7%) agreed that the space used for meeting is adequate, 130 (86.7%) also agreed that the space used as design studio is

adequate, 115 (82.1%) agreed that parking space for staff and clients is adequate, 125 (83.3%) also agreed that there is good circulation in all areas allocated for office, 110 (73.3%) agreed that there is good connection in the living space, 90 (66.7%) agreed that there is proper ambience for the office space, 100 (66.7%) also agreed that there are auxiliary facilities for staffs such as kitchen and toilets

Table 7: Physical Condition of Building

S/N	Items	Agreed	Not Agreed
1.	The physical condition of the unit is good	140 (93.3%)	10 (6.7%)
2.	The space used for client meeting is adequate	130 (86.7%)	20 (13.3%)
3.	The space used as design studio is adequate	130 (86.7%)	20 (13.3%)
4.	Adequate parking for staff and clients are provided	115 (82.1%)	25 (17.9%)
5.	Good circulation in all areas allocated for office space	125 (83.3%)	25 (16.7%)
6.	Good connection in the living space	110 (73.3%)	40 (26.7%)
7.	The structure looks like both a home and an office	70 (46.7)	80 (53.3%)
8.	Different access for the home and office	125 (86.2%)	20 (13.8%)
9.	There is proper ambience for the office space	90 (66.7%)	45 (33.3%)
10.	Auxiliary facilities for staff convenience are available (Kitchen, Toilets etc.)	100 (66.7%)	50 (33.3%)
11.	Auxiliary facilities for staffs are in good condition	65 (65%)	35(35%)

Source: Authors Compilation

Similarly, some of the respondents also agreed that the ancillary facilities are in good condition. Thus, they concluded that the physical condition of facilities in the building is up to standard as working from home has become more than a trend (see Table 7). Teicu (2014) maintained that hard-working people over the world are trying to find the best way to accommodate creative and inspiring working

environment in their homes. The economy also contributed to making people adopt this concept.

DESIGN BRIEF AND APPRAISAL

Based on the data collected and the outcome of the research findings, a befitting home –based-architectural firm is proposed for the study.

Design Description

A case study design was based on results from Ibadan, the capital city of Oyo state. On the project site are three main structures: The private residence for the Architect, the Commercial facilities for business activities including two lettable spaces and the Staff residence also with a lettable space (See Appendix).

Lighting: Adequate lighting is provided by various openings via windows. Louvre blades are also included in some spaces to allow maximum light and air penetration. Artificial lighting would also be provided.

Ventilation: Adequate ventilation shall be obtained by the different fenestrations made available. This would be augmented by different cooling systems such as central air-conditioning system due to the heat that would be generated by equipment placed in the commercial spaces.

Drainage: Runoff water would be drained through open and covered drains out of the site. The drainage slope will follow the site gradient. Toilet pipes would be connected to manhole and inspection chambers subsequently and later into soak ways.

Water Services: Water shall be circulated throughout the site through the borehole to the overhead tank storage and further distributed to the buildings on site by poly vinyl chloride (PVC) pipes.

Security: Provision of burglar proofs on windows and other openings and an electric fence system that runs around the entire site fence entails adequate security. There is a gate house to inspect and search visitors with a security gadgets such and camera room (CCTV) being provided for.

Fire Services: Availability of various fire-fighting equipments at strategic positions on site is important. These include, sand bucket, fire alarm system, fire hydrant, water sprinklers and water hose reel including soda acid foam extinguisher among others.

Access and Service Roads: Access road in front of the site enables points of ingress and egress to and fro the site and to allow for thorough entry and exit but also guard against porosity. There is an escape route at another side of the site to allow for exit in case of emergencies.

Power Supply: Electricity shall be supplied to the site by Ibadan Electricity Distribution Company (IBEDC-

formerly PHCN) and a stand-by generating plant will be provided to complement the failure in power. Conduit wiring system will be employed to prevent patrons from having interactions with the wiring system.

SUMMARY OF FINDINGS

The study highlighted the issues bordering on practicing Architects and those under tutelage in residential-based architectural firms. The study revealed that most of the respondents operated out of existing buildings that were converted from old buildings and none were purposely built. However, majority of these buildings were self- built, thus information extracted from the respondents were with high level of precision. Findings also revealed that majority of the respondents work and live in private buildings having between 5-6 rooms and belong to the detached bungalow types to provide the privacy needed for such activities. Most of the buildings were rented apartments and the rents were paid annually by occupants for convenience and ease of payment with annual payment range of ₦100,000- ₦ 200,000. The cost of building occupied by respondents ranged from ₦ 5million- ₦ 20million and occupants paid in instalments. Information on the work place characteristics revealed that most of the respondents work in architectural firms and thus are knowledgeable and were able to give genuine information about the study at hand. The staff strength was generally low with the highest value of (32%) and was between 6 to 10 people with 44% staffers working for 8 hours daily. While 57% of members of staff would prefer to stay for work overnight, 43% currently do not, due to the facilities being available not conducive enough. Majority of the facilities primarily available for the residences were satisfactory while those relating to the offices in the building were not adequate. This is due to the fact that most of these offices were not purposely built for the purpose they were put into because they were either converted or reused spaces in the building or added as after thoughts. As such, the buildings do not effectively cater for the needs of the users of the spaces. Zoning of the office's functioning spaces as a separate entity from the private residences of the Principal creates privacy for both the Principal with his family and the intending Architects as proposed in the attached design.

CONCLUSION

The study showed that the two years tutelage period required for registration should be seen as an extension of a school program whereby the concept of

the hostel is not lost on the intending Architects however with more privacy for them. This period of living and staying together will build bonds and bring necessary experience, including improving interaction with colleagues, workers, professionals and superiors alike. The study also highlighted the importance of Architects working from their residences as it is easier and cheaper to operate. With good design having both the home and office together, a balanced lifestyle that offers an opportunity for comfort in the home and good working conditions with official efficiency can be achieved and maintained. The Home Office should be designed as a whole entity, incorporating a smooth blend of both the home and office features without making them seem segregated but a whole unit. Facilities of both the home and the office should be juxtaposed and aligned to bring cohesion. Also, the office design should be such that communal interaction is encouraged so as to create strong bonds amongst the intending Architects that will be the major subject of future architectural practice partnerships. This will help to strengthen Architectural practices in the country and create a spirit of family among Architects.

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APPENDIX

LADOKE AKINTOLA UNIVERSITY OF TECHNOLOGY, OGBOMOSHO, OYO STATE
FACULTY OF ENVIRONMENTAL SCIENCES
DEPARTMENT OF ARCHITECTURE

USERS' SATISFACTION WITH FACILITIES IN RESIDENTIAL BASED ARCHITECTURAL FIRMS IN SOUTH-WEST NIGERIA TOWARDS THE DESIGN OF AN ARCHITECTURAL CUM-RESIDENTIAL FIRM IN IBADAN

QUESTIONNAIRE FOR ARCHITECTS

Dear Sir/ Ma,

A residential based architectural firm is an architectural firm that operates out of the Principal Architects house. His house or compound has either a space as an office or an office built separately on the same property.

This questionnaire is designed to obtain information on Users' satisfaction with facilities in residential based architectural firms in South-West Nigeria towards the design of an architectural cum residential firm in Ibadan. Kindly supply adequate and accurate information as this will be used strictly for academic purposes and will be treated with strict confidentiality.

Thank you

SECTION A – IDENTIFICATION

1. Address: _____
2. Community: _____
3. Capital City/Town: _____
4. State: _____

SECTION B

CURRENT HOUSING CHARACTERISTICS OF RESPONDENT

7. Age of Building a. Above 50 years b. 50 – 30 years c. 30 – 20 years d. 20 – 10 years e. Less than 10 years
8. Number of rooms: a. 1 – 2 rooms [] b. 3 – 4 rooms [] c. 5 – 6 rooms [] d. 7 rooms and above []
9. House Ownership: a. Rent [] b. Family House [] c. Government [] d. Private []
10. Type of Housing Unit Occupied: a. Brazilian (face to face) [] b. Detached Bungalow [] c. Semi-detached bungalow [] d. Block of flats/apartment type [] e. Duplex [] f. Others [] Please specify
11. If tenant:
 - a. How do you pay rent? a. Weekly [] b. Monthly [] c. Bi – Annually [] d. Annually []
 - b. How much do you pay per annum? A. Below #50,000 [] b. #50,001 - #100,000
c. #100,001 - #200,000 [] d. #200,001 - #300,000 [] e. #300,001 and above []
12. If owner occupied, how much will you value your house a. Below #5 million [] b. #5 million – 10million [] c. #10million - #15million [] d. #15million – 20 million [] e. #20 million and above []
13. What is the mode of acquisition of the building? a. Self-built [] b. Purchase [] c. Inheritance [] d. Others []
14. If purchased, how did you make payment for the property? a. Outright [] b. Instalments []

SECTION C

WORKPLACE CHARACTERISTICS

15. Where do you work? a. An Architectural Firm [] b. A Construction Company [] c. An Interior Design Firm []
d. A Furniture Company [] e. Others [] please specify _____
16. What is the company’s staff strength? a. 2-5 people [] b. 6-10 people [] c. 11-15 people [] d. 16 – 30 people []
e. 31-50 people [] f. 50 people and above []
17. Ratio of single people to married people: a. 1:1 [] b. 2:1 [] c. 3:1 [] d. 4:1 [] e. 3:2 []
18. Ratio of married people to single people: a. 1:1 [] b. 2:1 [] c. 3:1 [] d. 4:1 [] e. 3:2 []
19. How many hours of work do you observe per day? a. 7 hours [] b. 8 hours [] c. 9 hours [] d. 10 hours []
e. 10 hours and above []
20. What type of building is the firm occupying? a. Purpose built office [] b. Converted Residential [] c. Rented Office Complex []
d. Others [] please specify _____
21. How often do you stay overnight at the firm? a. Never [] b. Once a week [] c. Twice a week [] d. Thrice a week []
e. Others [] please specify _____
22. How often do you work overnight at home? a. Daily b. Once a week [] c. Twice a week [] d. Thrice a week []
e. Others [] please specify _____
23. Where would you prefer to work overnight? a. Office [] b. Home []
24. If accommodation is provided at the office, would you take it? a. Yes [] b. No []
25. If no, why? _____
26. If yes, why? _____

SECTION D

FACILITIES AVAILABLE IN THE RESIDENTIAL BASED ARCHITECTURAL FIRM WORKED IN

27. How long did you work in a residential based architectural firm? a. Less than a year [] b. 1 – 2 years [] c. 3 – 5 years []
d. 6 – 8 years [] e. Above 9 years []
28. Do you still work there? a. Yes [] b. No []
29. If no, how long ago did you leave? a. Less than a year [] b. 1 – 2 years [] c. 3 – 5 years [] d. 6 – 8 years [] e. Above 9 years []
30. Which of the following facilities are available in the residential based architectural Firm you worked in?

S/N	FACIITIES	YES	NO
I	ENTRANCE PORCH		
Ii	SITTING ROOM		
Iii	DINING ROOM		
Iv	KITCHEN		
V	LAUNDRY		
Vi	GUEST BEDROOM		
Vii	STUDY		
Viii	STORE		
Ix	STAIRCASE		
X	COURTYARD		
Xi	GARAGE		
Xii	STUDIO		
Xiii	CLIENTS MEETING SPACE		
Xiv	STAFF LIVING QUARTERS		
Xv	OFFICE		

SECTION E

FACILITIES NEEDED TO COMPLEMENT THE EXISTING RESIDENTIAL BASED ARCHITECTURAL FIRM

31. What are/were the features you enjoy (end) at the residential based architectural firm?
- i. _____
 - ii. _____
 - iii. _____
 - iv. _____
 - v. _____
32. What features are/were you dissatisfied with at the residential based architectural firm?
- i. _____
 - ii. _____
 - iii. _____
 - iv. _____
 - v. _____
33. What features would you desire to possess at the residential based architectural firm?
- i. _____
 - ii. _____
 - iii. _____
 - iv. _____
 - v. _____
34. Is the firm; a. A space in the Architect's house [] b. Built separately but on the same property []
c. In a different compound away from the Architect's house []

THANK YOU

ARCHITECTURAL DRAWINGS FOR THE DESIGN



