APPRAISAL OF USER SATISFACTION FOR PUBLIC OFFICE BUILDINGS IN ANAMBRA STATE, NIGERIA

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IJASR 2019
VOLUME 2
ISSUE 2 MARCH – APRIL **ISSN: 2581-7876**

Abstract – Office buildings represent a significant value as being fixed assets for all organizations. The primary purpose of an office building is to facilitate the provision of a workplace and working environment for information and knowledge processing activities such as filing, planning, designing, supervising, analyzing, deciding and communication. However, despite the crucial role of this resource especially in Nigeria, occupants of public office buildings have not demonstrated adequate level of satisfaction with the performance of their workplaces. This study evaluates the user satisfaction with public office buildings in Anambra state using questionnaire survey. Findings revealed that the level of user satisfaction for public office buildings in the state is rated 43.86% based on selected performance indicators which is considered relatively low. This is attributed mainly to lack of building performance evaluation of the facilities which would have provided feedbacks necessary for promoting user needs and expectations. This research however recommended regular and proper performance evaluation of office buildings through improved design, planning, construction and management of public buildings. This is to be done based on standards and specifications established by experts and professionals with adequate knowledge of user changing needs and expectations.

Keywords: Office buildings, Performance evaluation, User needs and Satisfaction.

1.0: Introduction

The built environment and buildings provide the foundation upon which mankind exist, develop and survive (Vanagas, 2003). Therefore, building facilities and services must be fit to ensure the comfort and satisfaction of its users (Ogunoh, Ezeokonkwo & Okolie, 2015). Studies have shown that, satisfaction is a subjective evaluation of the performance of building or services in meeting the needs and expectations of users (Parker & Mathews, 2001; Ueltschy, Laroche, Eggert & Bindl, 2007). Satisfaction also compares the benefits or values users derive from such environment, to that expected when a service is consumed. Satisfaction therefore is a measure of the difference between the actual and expected performance of services in meeting users' needs and expectations from the user's perspective during or after occupational experience.

According to the expectancy-disconfirmation theory on which most studies on satisfaction are based on, if the performance of a service meet users' needs and expectations, the user is said to be satisfied with the service, and vice versa (Oliver, 1981; Parker .C & Matthews, B. P, 2001). **Consequently, there are** fundamental design elements which are to be given careful consideration as they positively impact the workplace environment through the provision of comfortable enclosure to the staff (Heerwagen, 1998). Such design considerations/elements include: **thermal comfort and temperature, access to nature, views and daylight, sensory change and variability, color, noise control, crowding, human factors and ergonomics, indoor air quality, choice,** convenience/toilet facilities, sustainable materials, **energy and power, water supply,** dinning and changing rooms, workplace safety in general amongst others. These design elements are to be considered during the inception, design and construction stages of the building. Hence, they are seen as performance indicators which will determine if a building meets the user's needs, hence, satisfaction of the user depends on the availability and performance of these fundamental design elements.

Hence, there is need to set a direction for improved and consistent satisfaction of user needs in a workplace through constant Building Performance Evaluation (BPE) of the user working environment. Vischer (2002) pointed out that BPE also helps in understanding how occupants feel about their buildings, and thus provides basic information on users' needs, preferences and satisfaction.BPE primarily seeks to improve the quality of design, construction and management of buildings and by extension, promotes sustainable built environment. It is

constantly examines the extent to which buildings are effective and efficient in meeting the needs and expectations of users (Liu, 1999; 2005, Kim, S. I., Yang, M., Yeo, K. (2005 and Nawawi & Khalil, 2008). Therefore, the need for BPE to be part of the innovative interest of architects and other professionals in the building industry cannot be overemphasized. BPE provides technical feedback on the in-use operation of the building to inform what needs to be improved or fine-tuned, both in terms of operation and procurement. Along with quantitative measures of performance, a BPE process should incorporate statistical measures, such as occupant's feedback as a means of assessing occupants comfort and levels of satisfaction.

2.0: The Study Area

The study area is Anambra State and it is comprised of 21 Local Government Areas. These Local Government Areas include Aguata, Awka North, Awka South, Anambra East, Anambra West, Anaocha, Ayamelum, Dunukofia, Ekwusigo, Idemili North, Idemili South, Ihiala, Njikoka, Nnewi North, Nnewi South, Ogbaru, Onitsha North, Onitsha South, Orumba North, Orumba South and Oyi making up the state three (3) senatorial zones of Anambra North, South and Central.

Anambra State boundaries consist of Enugu State in the East, Delta State in West, Kogi State in North and Imo State in the South. The State is located within latitudes 6^0 15^1N and 7^0 00^1N and longitudes 6^0 45^1E and 7^0 15^1E. Anambra State as shown in Figure 1 and is located in the South Eastern geopolitical zone of Nigeria.

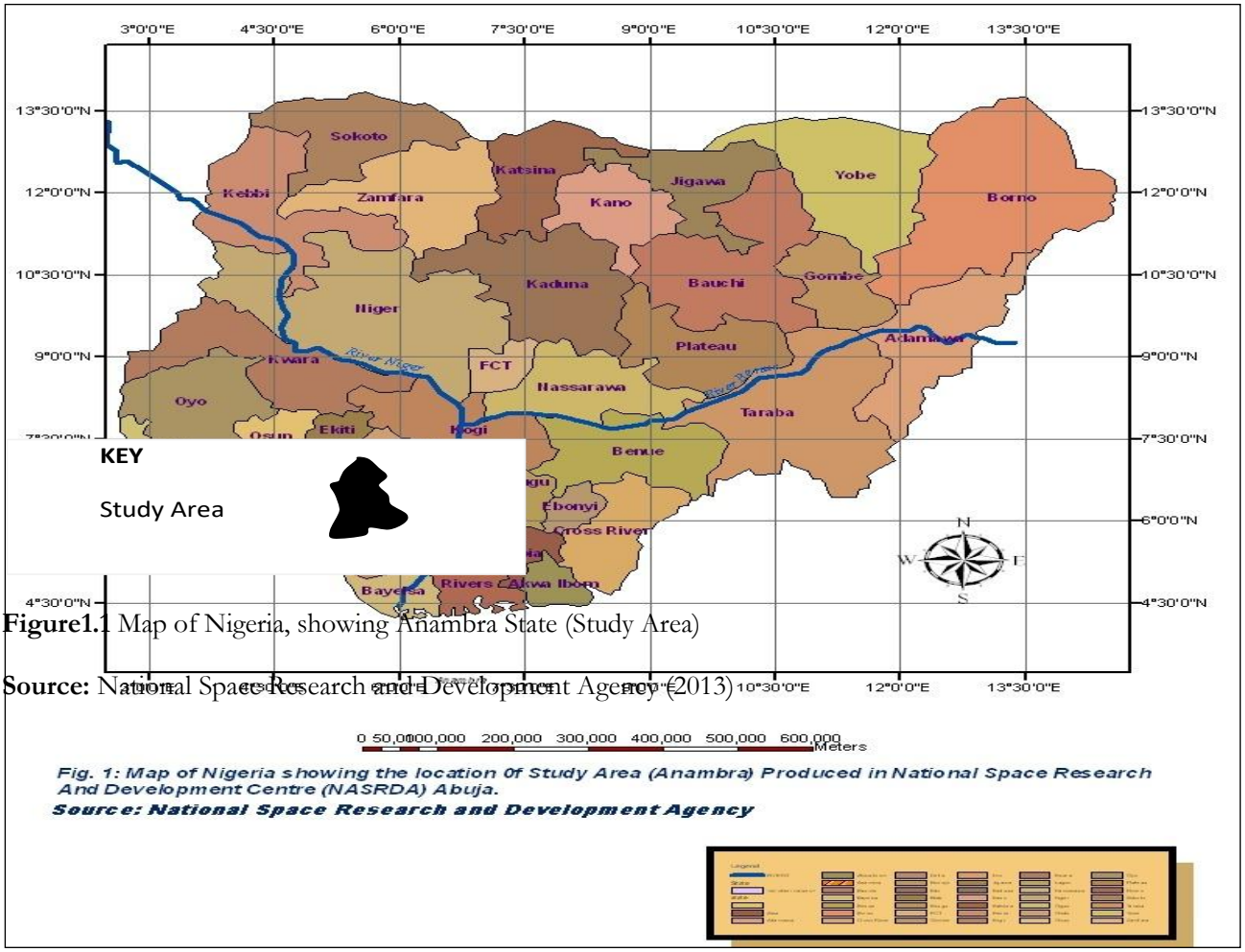

Figure1.1 Map of Nigeria, showing Anambra State (Study Area)

Source: National Space Research and Development Agency (2013)

Fig. 1: Map of Nigeria showing the location 0f Study Area (Anambra) Produced in National Space Research And Development Centre (NASRDA) Abuja.

Source: National Space Research and Development Agency

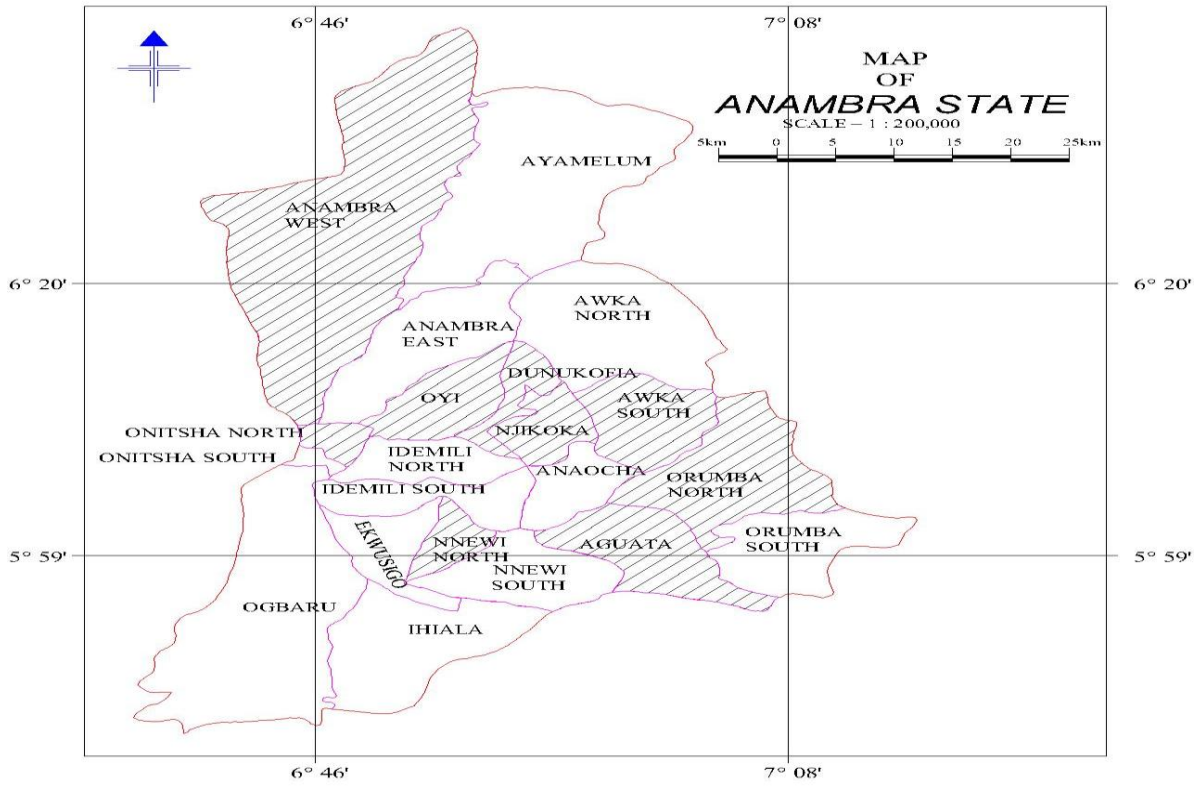

Figure.1.2: Map of Anambra Showing the selected Local Government Areas.

Source: Surveying Department, Nnamdi Azikiwe University, Awka.

3.0: Materials and Method

The study adopted the survey research method for data collection. The sample technique involved the simple random sampling applied on a targeted population of 3,267 staff of the Anambra state secretariat buildings. The sample size of 360 was determined using the Taro Yamane Formula. With the aid of SPSS software version 16, data were analyzed using simple percentages, frequencies and mean score. Paired sample t-test and Pearson product moment correlation were employed in testing the two null hypotheses which stated that there is no significant difference/ relationship between the office building performance and user satisfaction

4.0: Results and Discussions

Table 1.1 Staff Strength of the Targeted Nine Local Government Areas

S/No	LGA	Admin.	Finance	Edu/Soc	Health	Agric	BPRS	Works	Total
1.	Aguata	121	85	37	97	15	3	23	381
2.	Anambra West	102	67	26	81	13	7	48	344
3.	Awka South	209	129	56	105	24	11	27	561
4.	Dunukofia	122	67	36	69	13	5	25	337
5.	Nnewi South	74	35	17	77	14	6	14	237
6.	Njikoka	113	120	56	109	28	16	26	468
7.	Orumba South	60	32	17	70	19	4	16	218

8.	Onitsha North	129	101	44	106	15	5	34	454
9.	Oyi	79	35	28	78	14	4	29	267
	Total								**3,267**

Source: Anambra State Local Government Service Commission, Awka.

Table 1.2 Agreements with Requirements for an Office Building

S/No	Building attributes	SD		D		Not Sure		A		SA		Mean	Remark
		F	%	F	%	F	%	F	%	F	%		
1	Adequate thermal comfort	3	0.8	4	1.1	2	0.6	117	32.5	234	65.0	4.5972	Agree
2	Access to nature, view and daylight	2	0.6	2	0.6	2	0.6	138	38.3	216	60.0	4.5667	Agree
3	Sensory change and variability	1	0.3	1	0.3	8	2.2	130	36.1	220	61.1	4.5750	Agree
4	Colour	2	0.6	2	0.6	1	0.3	216	60.0	139	38.6	4.3556	Agree
5	Noise control	0	0	1	0.3	0	0	139	38.6	220	61.1	4.6056	Agree
6	Privacy in an office	4	1.1	16	4.4	58	16.1	72	20.0	210	58.3	4.3000	Agree
7	Accessibility	2	0.6	3	0.8	0	0	140	38.9	215	59.7	4.5639	Agree
8	Human factor and ergonomics	0	0	0	0	3	0.8	151	41.9	206	57.2	4.5639	Agree
9	Good indoor air quality	0	0	0	0	5	1.4	149	41.4	206	57.2	4.5583	Agree
10	Choice of office	1	0.3	10	2.8	33	9.2	104	28.9	212	58.9	4.4333	Agree
11	Convenience/ toilet facility	0	0	0	0	0	0	128	35.6	232	64.4	4.6444	Agree
12	Environmental sustainability	1	0.3	1	0.3	0	0	126	35.0	232	64.4	4.6306	Agree
13	Energy and power	0	0	0	0	0	0	134	37.2	226	62.8	4.6278	Agree
14	Health and safety	0	0	0	0	0	0	148	41.1	212	58.9	4.5889	Agree
15	Aesthetics	0	0	0	0	6	1.7	142	39.4	212	58.9	4.5722	Agree
16	Adequate security	0	0	0	0	0	0	150	41.7	210	58.3	4.5833	Agree
17	Flexibility and adaptability	0	0	0	0	0	0	141	39.2	219	60.8	4.6083	Agree
18	Functionality in general	0	0	0	0	2	0.6	142	39.4	216	60.0	4.5944	Agree

Researcher's field survey, (2017)

It could be observed from table 1.2 that almost all the respondents agreed that the listed building attributes are requirements for an office building with a minimum mean score of at least 4.5 in favour of each attributes. This apparently implies that the above attributes are requirements for an Office Building according to the views (responses) of the respondents.

Table 1.3 Levels of Satisfaction of the users with Working in their respective Offices

S/N	Building attributes	Least Sat		Less Sat		Sat		More Sat		Most Sat		Mean	Percent
		F	%	F	%	F	%	F	%	F	%		
1	Adequate thermal comfort	124	34.4	113	31.4	84	23.3	26	7.2	13	3.6	2.1417	42.834
2	Access to nature, view and daylight	30	8.3	68	18.9	226	62.8	31	8.6	5	1.4	2.7583	55.166
3	Sensory change and variability	24	6.7	82	22.8	242	67.2	7	1.9	5	1.4	2.6861	53.722
4	Colour	72	20.0	150	41.7	124	34.4	10	2.8	4	1.1	2.2333	44.666
5	Noise control	134	37.2	120	33.3	100	27.8	4	1.1	2	.6	1.9444	38.888
6	Privacy in an office	160	44.4	120	33.3	75	20.8	3	.8	2	.6	1.7972	35.944
7	Accessibility	25	6.9	30	8.3	214	59.4	82	22.8	9	2.5	3.0556	61.112
8	Human factor and ergonomics	141	39.2	110	30.6	72	20.0	24	6.7	13	3.6	2.0500	41.000
9	Good indoor air quality	46	12.8	94	26.1	178	49.4	30	8.3	12	3.3	2.6333	52.666
10	Choice of office	120	33.3	151	41.9	76	21.1	10	2.8	3	.8	1.9583	39.166
11	Convenience/ toilet facility	200	55.6	138	38.3	16	4.4	4	1.1	2	.6	1.5278	30.566
12	Environmental sustainability	89	24.7	100	27.8	160	44.4	10	2.8	1	.3	2.2611	45.222
13	Energy and power	221	61.4	110	30.6	28	7.8	1	.3			1.4694	29.388
14	Health and safety	94	26.1	142	39.4	100	27.8	15	4.2	9	2.5	2.1750	43.500
15	Aesthetics	108	30.0	161	44.7	60	16.7	26	7.2	5	1.4	2.0528	41.056
16	Adequate security	45	12.5	82	22.8	184	51.1	38	10.6	11	3.1	2.6889	53.778
17	Functionality in general	125	34.7	184	51.1	34	9.4	14	3.9	3	.8	1.8500	37.000
Cluster mean and percent												2.193	43.863

Source: Researcher's field study, (2017)

Table 1.3 presents the Levels of Satisfaction of the respondents on the attributes with working in their respective offices. The table reveals generally, a low level of satisfaction derived from the various building attributes. It can be clearly seen that the respondents have only 29.388% level of satisfaction from energy and power which represents a major attribute in building envelop that stands as determinant for other attributes like indoor air quality and thermal comfort. Whereas for accessibility, they are about 61.112% satisfied. The overall level of satisfaction is 43.863%. This implies that staffs generally have a low satisfaction level with most of the building attributes as regards working in their respective offices.

5.0: Conclusion and Recommendation

1) The staff of the Anambra state Local Government Secretariat generally agreed that an ideal office should have all the necessary attributes and requirements.
2) The staffs of the Anambra state Local Government Secretariat who are incidentally the users of the building have demonstrated a low level of satisfaction with their office buildings.
3) There is a significant relationship between the performance of the state public buildings and the user satisfaction.

Based on the findings of the research, the following recommendations are made as effective and efficient measures of meeting user needs and satisfaction in public office buildings in Anambra State.

(1) There is need for the government to regularly carry out building performance evaluation to ascertain how well public office buildings are serving the needs of the user and to identify major deficiencies in its overall performance through feedbacks from users.

(2) The Government should map out adequate recourses for engaging facilities management professionals to take charge of the management of public buildings as the process takes holistic view of the dynamics between people, process and environment. Hence, it will create a conducive and comfortable environment in carrying out the organizational core business.

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