

ADAPTIVE REUSE DESIGN CONSIDERATION IN CAMPAIGN OFFICE BUILDINGS IN MINNA, NIGER STATE

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Political office is a public building purposely built for the daily activities of a registered political party. The structure is usually deserted after the conduct of the general elections. This study therefore examines the necessary design considerations for putting the structure to use for other similar purposes even beyond the conduct of the election without remodeling the structure. Purpose sampling technique was employed to select two out of five different political offices in Minna. Questionnaires and observation schedules were used to gather information from some selected campaign offices in Minna, Niger State. A total of 200 questionnaires were administered across the selected buildings and 151 questionnaire were retrieved (75.5%). The results were analysed using descriptive analysis and the 4-likert scale measurement. The results show that there is significant satisfaction for open space office model for adaptive reuse in office design.

Keywords: Adaptive, campaign, office, public buildings, reuse

INTRODUCTION

Political party offices are a part of the electoral requirements in Nigeria (Independent National Electoral Commission, 2014). Nigeria, country that runs a multi-party system with a total of thirty- three registered political parties (INEC, 2014). These political parties are in need of offices where candidates, supporters and volunteers can meet to carry out different activities during and after elections activities. According to INEC, (2014). A requirement for the registration of a political party is that the National Headquarter of the party must be located in Abuja and the party must have offices in at least 24 states of the Federation (Guidelines for the Registration of New Political Parties, 2014). This leaves Minna city scape with an astounding number of political campaign office buildings. However, these offices are mostly left under-used or vacant during the periods following electoral activities. Adaptive reuse refers to the process of transforming buildings for different or alternative functions while retaining their original features. It describes the way by which an old site or building can be used for another use other than the one it was originally built or designed for whereby the character of the building is preserved and the purpose is transformed (U.S. National Park Service, 2015). It is a practical way of lowering environmental impact (Mitchell, 2002). In this way, it is a sustainable alternative as it ensures that vacant and old buildings can be put to various options of use.

Adaptive reuse provides a means of building conservation by finding a new use for it. According to Olagoke, (2014), the process of converting a building for adaptive reuse can also be termed as renovation, retrofitting, reworking, remodeling or refurbishment. Changes made to the original structure may range from obvious changes to minor alterations and additions to the old configuration or destruction of a part of it.

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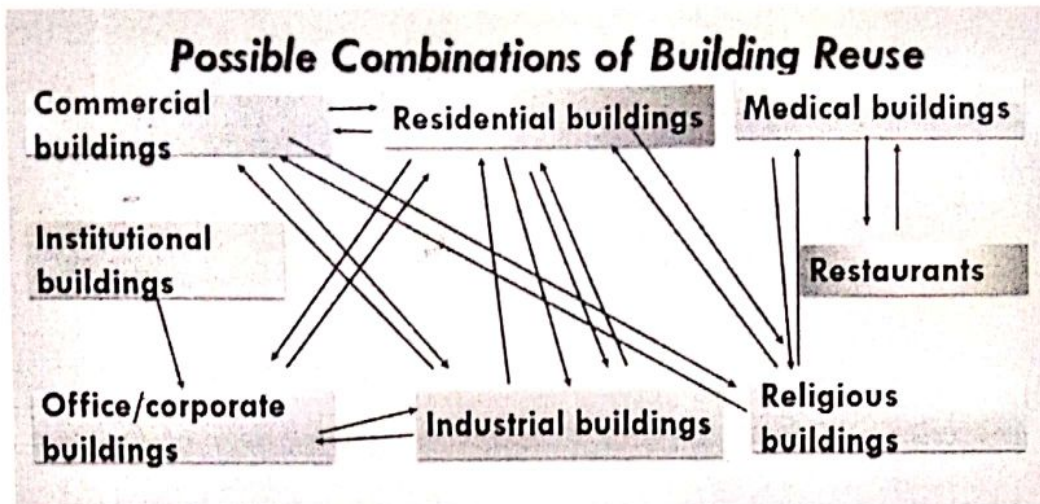


Figure 1.0: Show Possible Combinations of Building Reuse Concepts
Source: Ojikpong et al (2016).

The aim of this research is to evolve flexible design considerations that will enable the party offices to be reused for other private or public uses without undermining its primary purpose as a political party office building. The aim of this research will be achieved through the following:

Determination of user satisfaction in office buildings based on the use of space.

Identifying and investigating the physical parameters of what allows the conversion of campaign office building to other uses.

Types of Office Layout

Open Plan Office

The open office structure is described as a flexible space with freedom from oppressive walls and enclosures (<https://www.archdaily.com/tag/open-plan>. Retrieved on 24th November, 2017). Open plan office employs the use of large open spaces with workspaces.

Closed Plan Office

A closed office is also referred to as an enclosed office or private office space. It employs the use of cubicles, sections and partition materials to provide distinct spaces for individual workers (www.santaclaraofficesolutionsca.com. Retrieved on 24th November, 2017)

Uses of Office Accommodation

Adaptability in design is defined as making a thing suitable to situations and adjustment to fit. House (2010). In building conversion, it is disposed to open plan, accessibility and its performance as it concerns functionality for its different users. Flexibility is the most available tool that permits a new use in an existing building designed for another purpose (Santos, 2014).

Flexibility

Adedayo et al (2014) opined that establishments employ the open plan office layout to provide flexibility as well as to reduce the cost of space use. Space flexibility enables the ease of the function of a space to be converted to another. The ease in the flexibility of spaces is aided by the modular coordination of different units.

Modular Coordination

Modularity is the extent to which a component can be separated or rejoined. It involves building components such as partition materials and floors which are prefabricated in modules, and joined either end to end, side by side or stacked together. The relationship between modular coordination and adaptive reuse is its allowance for flexibility and conversion. According to Saagwe (2010), Modularity as well as 'open-endedness' as it concerns the structural components of a building enables the building to be open for conversion. Modular Coordination applies to building elements as well as furniture in the office space

Internal Partition

Open plan arrangement refers to a universal layout of floor plan or open office which permits spaces to be subdivided based on the spatial requirements of each task. Gells (2000). The existent practice of office establishment that makes use of solid block as internal partitioning constrains the flexibility prospects for the spaces in a building. Adedayo et al (2014). For closed plans, internal partitions such as glass, wood and other collapsible materials enables ease of building conversion for reuse.

Headroom of Spaces.

The volume of a space is dependent on the length, span and height (headroom) of the space. Probable options of adapting for reuse, is dependent on the headroom of a space for easy exchange of air from the lower and upper portion of a given space. The office structure of a political office requires gathering of crowds especially during the conduct of elections and when meetings are held. For ease of conversion, it suffices that the other options of use the campaign office building will be adapted for will put into consideration the headroom of spaces.

Parking Spaces & Adjoining Facilities to Site

The availability of designated parking spaces and the proximity and type of other facilities are external factors to be considered in building reuse. These external factors contribute to the type of use the campaign office can be put to.

Categories of Staff in a Political Party Office

The staff structure of a political party informs the functions and number of offices required in the party office. The staff of a political party can be categorized based on their functions as administrative and non-administrative staff and also on the frequency of use of their offices. The basic official requirements of party offices are;

Table 1.0: Table showing the categories of staff in a political party

ADMINISTRATIVE STAFF	NON- ADMINISTRATIVE STAFF
Chairman	General Staff
Secretary	Volunteers/ Activists/Supporters
Public Relations Officer	Team of ICT Technicians
Welfare Secretary	Cleaners
Financial Secretary	
Treasurer	
State Auditor	
Youth Leader	
Campaign Manager	

Source: Author's Field Work

Spaces in a Campaign Office Building

Offices (for Administrative and Non-Administrative Staff)

Meeting Spaces

Storage Spaces

Conveniences

The Study Area

Minna, the study area of this research is located between longitude 9.5836 degrees North and latitude 6.5463 degrees East. The State is home to many ethnic tribes with the Nupe, Gbagyi and Hausa being the majority. Islam and Christianity are the most practiced religion in Minna, Niger State. It has two local government areas which are Chanchaga and Bosso Local Government Areas. According to the 2006 Population Census, Minna has a population of 201,429 people. By the projections of the National Population Census, the population of Minna is over 300,000. The study area was selected due to the number of political parties present in the urban center.

METHOD OF DATA ANALYSIS

Data for this study was gathered through the administering questionnaires and observation schedules. The prepared questionnaires were administered to selected campaign office buildings in Minna metropolis.

The observation schedule was used to get data concerning the physical conditions of the interior, exterior and the surrounding environment of the campaign office buildings. A total of 200 structured questionnaires were distributed to the users of campaign office buildings to investigate the frequency of use of their office spaces and their perception towards some parameters affecting adaptive reuse of their offices. The respondents of the questionnaires were administrative and non-administrative staff of the party offices. Out of the 200 distributed questionnaires, 151 of those questionnaires were recovered. This gives a percentage of 75.5 return rate. Data acquired was sorted based on individual political party office building and entered into a descriptive statistical tool, SPSS for analysis. A 4-point likert scale was used to analyse the perception of the staff. The output of the data obtained is represented in tables and charts.

DATA ANALYSIS AND DISCUSSION

The factors considered while carrying out this study includes the type of building, the form of building, the layout (close or open office), the internal partition materials, headroom of spaces within the campaign offices.

Office Layout

Usually, the layout of offices has a major role to play in the ease of movement of one office function to the other. It is generally assumed that an open plan office eases work flow from one task to the other. In terms of flexibility, the open office layout is perceived to be more flexible than the closed plan office layout which is characterized by individual spaces accessible by corridors and lobbies. Fig 2.0 showed that 70% of the campaign office buildings employed the close plan office layout while 30% employed the mixed (combination of open and close office plan).

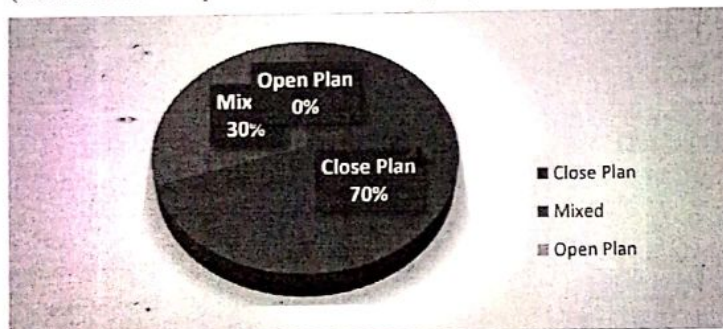


Figure 2.0: Office layout in the Campaign office buildings
Source: Author's Field Work, 2017.

Headroom of Spaces

Fig 3.0 shows that 60% of the campaign office buildings had headroom of 2.7m-3.0m, 30% had a headroom of 3.5m-3.7m while 10% of them had a headroom of 4.0m above.

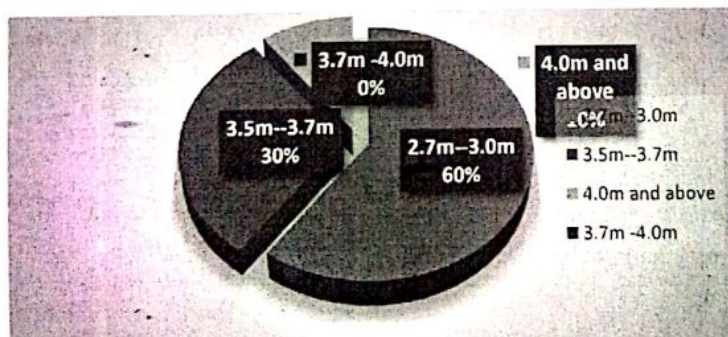


Figure 3.0: Pie Chart showing the headroom of spaces in the campaign office buildings.
Source: Author's field Work

Internal Partition Materials

Figure 4.0 shows the representation of the types of partitioning materials used in the Campaign Offices. 83% of the Campaign offices used solid block wall for partitioning of spaces. 17% of the campaign offices visited employed the use of glass for partitioning. The use of solid block wall for partition restricts the adapting of spaces for reuse. Materials such

as glass, wood, steel, poly vinyl chloride sheets and other composite materials are flexible option of materials that ease conversion.

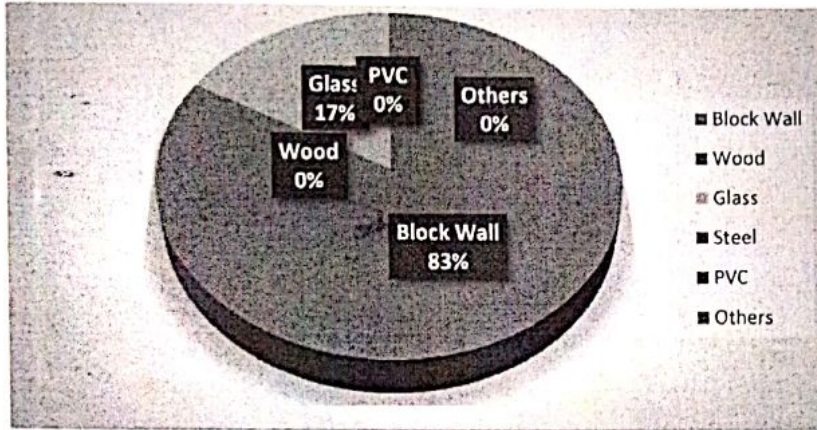


Figure 4.0: Pie Chart showing the type of Partition Materials used
Source: Author's fieldwork (2017)

Parking Spaces

The availability of designated parking spaces and the number of such parking spaces has an impact on the possible use a building is converted to. In the course of the research, the author discovered that 20% of the campaign office buildings had designated parking spaces while 80% of the campaign offices had no designated parking space.

Additionally, the break-down of the percentages of the number of parking spaces are; 50% of the office buildings had no parking spaces, 30% had parking spaces for 0-10 cars, 10% had parking spaces for 0-20 cars and the remaining 20% had spaces for 0-30 cars.

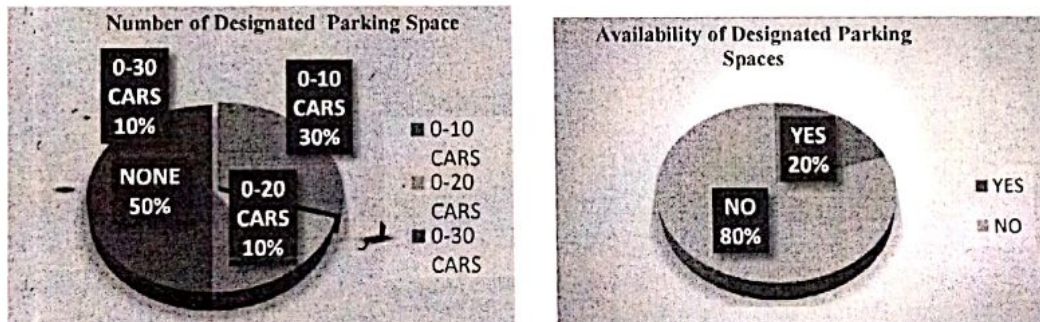


Figure 5.0: Availability of Designated Parking Space, Availability of Designated Parking Spaces
Source: Author's field work (2017)

Building Use and Conversion

Figure 6.0 shows the initial purpose of the campaign office buildings. 46% of the campaign office buildings were formerly used as residential buildings, 27% of the campaign office purposely built as political buildings and retains its use. 27% were formerly built for commercial use.

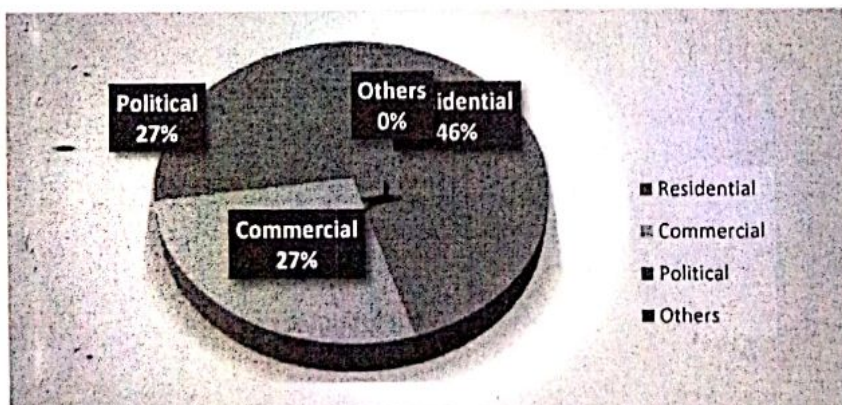


Figure 6.0: Pie chart showing the Initial Purpose of the Campaign Office
Source: Author's fieldwork (2017).

Building Reuse

Table 7.0 below shows the type of use the campaign offices are adapted for when the buildings are not in use as a campaign office. Data shows that 90% of the campaign offices were not reused for other purposes living it vacant following the periods after election, 10% Of the campaign office buildings were put other alternative uses.

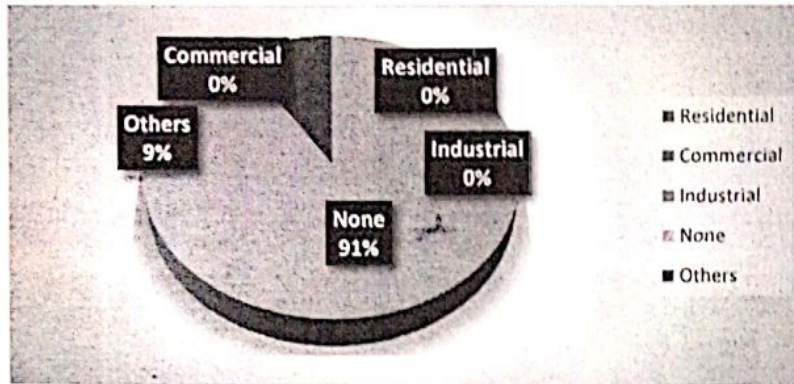


Figure 8.0: Pie Chart showing Type of Reuse for Campaign Office Building
Source: Author's fieldwork (2017)

Frequency of Use of Spaces for Different Categories of Staff

Figure 8.0 shows the frequency of the use of office space in the campaign offices by administrative staff and non-administrative staff. 60% of the administrative staff use the campaign offices as required. 17% of the administrative staff use the office weekly, 17% of the administrative staff also use the office weekly and only 9% of the administrative staff the office daily.

Additionally, 38% of the non-administrative staff use the office weekly, 28% of the non-administrative staff use the office daily, 22% use the office weekly while 12% of the admin staff use the office as required.

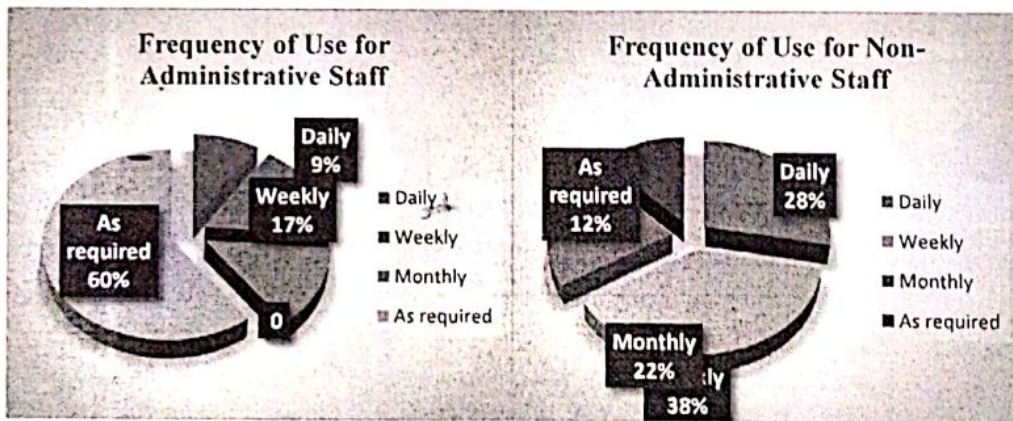


Figure 8.0: Frequency of Use for Administrative and Non-Administrative Staff.
Source: Author's fieldwork (2017)

Respondent's level of satisfaction with the following measured parameters

The 4- Likert scale measurement was uses to analyze the users' perception of their office spaces. The decisions of the respondents were recorded from 1-4.

As stated below:

Very Dissatisfied	1
Dissatisfied	2
Satisfied	3
Very Satisfied	4

Table 2.0: shows the sum of respondent's response to the level of satisfaction with the following measured parameters.

Variables	Very Dissatisfied X1	Dissatisfied X2	Satisfied X3	Very satisfied X4	Total
Size of office	26	62	44	19	151
Natural Ventilation	33	56	33	29	151
Natural Lighting	31	41	52	27	151
number of conveniences	21	33	61	36	151
Parking Space	28	77	30	16	151

Source: Author's fieldwork (2017)

The results are interpreted based on Likert Scale as follows

1.0 -	1.49	Very Dissatisfied
1.5 -	2.49	Dissatisfied
2.5 -	3.49	Satisfied
Above	3.5	Very Satisfied

Table 3.0: shows the sum of respondent's response on the level of satisfaction with the measured parameters

Variables	VD X1	D X2	S X3	VS X4	SUM	MEAN	INTERPRETATION
Size of office	26	124	132	76	358	2.37	Dissatisfied
Natural Ventilation	33	112	99	116	360	2.38	Dissatisfied
Natural Lighting	31	82	154	108	375	2.48	Dissatisfied
number of conveniences	21	66	183	144	414	2.74	Dissatisfied
Parking Space	28	154	90	64	336		Dissatisfied

Source: Author's fieldwork (2017)

CONCLUSION

The effect of the blemish redundant and uninhabited buildings cause to urban centers cannot be under emphasized. This paper attempted to evolve other options of use for abandoned campaign office buildings.

Findings show that the campaign office buildings are left abandoned after the conduct of elections except for a percentage of the administrative and non-administrative staff who use the office when necessary creating the need for permanent offices for them in the campaign office building. The non-administrative staff are mostly present only during the conduct of elections due to electoral activities. This necessitates the need for an open office plan office which can be used during the period of elections and also adapted for reuse for other functions to make it useful for other users. This implies that the other options of use of the campaign office building should not undermine its primary option of use of the party office. This research has also established that the exterior factors such as parking spaces, adjoining facilities to campaign office buildings has a role to play in the form of conversion the campaign offices will be put to so as to enable both the old and new use to adapt fittingly regardless of use.

RECOMMENDATIONS

Architects should employ the principles of adaptive reuse in the design of buildings so as to preserve the buildings and render it economically viable throughout its life cycle. Adaptive reuse concept is a better option to demolition of abandoned campaign buildings as it gives continuous use for campaign office buildings throughout their life cycle and as well as in cases of extension of time.

Open Plan office layout or a close plan with modular partition materials should be employed by architects and interior designers in the design of office spaces as it eases the conversion of the use of a space to another. Multi-functional spaces should also be used in the interiors

of campaign office buildings. Larger headroom should be provided for in office interiors as these increases its ability to be used for other functions.

A building that does not support change and reuse for alternative purposes is considered to have only an illusion of sustainability (Croxtton, 2003.) Therefore, architects should embrace flexibility in the design of building structures to enable ease of conversion to other uses.

Abandoned campaign office buildings should be studied and adaptive reuse principles applied to create options of use to enable their extensive use throughout their lifecycle as well preserving its unique cultural heritage.

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