Analysis of the Performance of Office and Shop Properties Rental Values in Kaduna

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This study investigates rental values of office and shopping complexes in Kaduna metropolis between 2000 and 2013. Data for analysis were obtained through primary sources. Structured questionnaire was administered to 19 firms of estate surveyors and valuers that managed these properties in Kaduna city. The study adopted multi-stage sampling technique, and the data collected were descriptively analysed using tables and weighted/mean rental values of the studied properties. To determine the performance of office and shop properties and their relationships, rental growth analysis, correlation analysis and Analysis of Variance (ANOVA) were utilized. At 95% confidence level, rental growths of offices and shops within the study period had no statistically significant relationship in Kaduna North (CBD: p-value=0.0811 and Ungwan Rimi: p-value=0.0811) contrary to the situation in Kaduna South (Barnawa: p-value=0.0012).With ANOVA P-value= 0.4091 at 95% confidence level also, the study further revealed that there was no statistically significant variation in rental growth rate of these properties across Kaduna metropolis, which suggests that office and shop are complimentary properties. However, based on the average rental growth rates (ARGR) for the study period, office and shop rentals in Barnawa, an uptown area of Kaduna South performed better (ARGRs=12.8 % and 10.6%) than their counterparts elsewhere in Kaduna metropolis, even at the CBD (ARGRs=12.3% and 9.9%). Consequently, the study recommends among others that investors in commercial property market should not just rely on their experience and intuition in deciding when, what and where to invest, but should consistently seek expert advice from competent estate surveyors and valuers before investing for guaranteed investment success.

Keywords: Office property, shop property, rental values, performance, Kaduna

Introduction

Office and shop properties have not only constituted large component of institutional investments, but the major landscape of urban centres across the globe and objects of academicand professional researches (Adoga, 2015). In property investment, investors expect return in form of rent (Barlowe, 1978; Mackmin, 1990; Foo ng & Higgins, 2007; Scarrett, 2011). Rental value is a critical and key driver of property investment decision. A neglect of rental income in property investment performance analysis and decision was identified as the main cause of failure of subprime mortgage in USA that led to the global economic crunch, which resulted to many consequences (Foster, 2008; Murphy, 2009; Newell & Razali, 2009; Simpson, 2011).

Rent is the economic return to real estate or land resources (Shenkel, 1980). According to Ifediora (2005), rent is the annual value of land. As a factor of production, classical economists for decades tried to analyse the economic concept of land, the role of land in production process and the nature of rent. These early rent theorists believed that the rent-earning capacity of different lands was a measure of their variation in location and transport cost from the central market (Central Business District). As an immediate return to land resources therefore, the place of rent and or rental value in property investment cannot be over-stated. According to Foo ng and Higgins (2007), rental value is a key measure of property investment performance, representing a significant cost for property renters and a source of income for landlords and, it is used as a guide by other property market operators to assess mortgage terms as well as the feasibility and viability of their projects. Against this background, understanding rental performance and its characteristic will not only provide important insights into the behaviour of commercial property market, but will lead to an informed investment decision.

Literature Review

The classical economists over years attempted to analyse the economic concept of land, the role of land in production process and the nature of rent. These early rent theorists believed that the rent-earning capacity of different lands is a measure of their variation in location and transport cost from the central market (Central Business District). The findings did not only reveal the significance of rent in property investment but unravelled the impact of location and transportation on property values.

Concept of commercial property

Commercial property is a property designated and or constructed for use as office, retail, wholesale, hotel or services such as medical and educational services. According to Appraisal Institute (2002), commercial property refers to income-producing property, usually zoned for business purposes such as office buildings, retail buildings, hotels, banks, restaurants, and service outlets (petrol station, medical, recreational and educational services) and owner-occupied properties that are capable of becoming income-producing should the owner so decide. Commercial properties are properties that are developed or acquired solely for investment purpose with the aim of realizing incomes by way of rent paid or payable for the use of the property or realization of profit from sales of such properties on completion or when the owner so decides.

Types of commercial properties

Main types of commercial property are identified (Thorncroft, 1965; Appraisal Institute, 2001; Kuye, 2003; Investment Property Forum, 2007; IPF, 2015) as shop, office and industrial, and these account for 80% of the commercial property market in most parts of the world.

Shops

Shop, otherwise known as retail property refers to properties used strictly for marketing and selling consumer goods. Shops can be further grouped into; Convenience shops, Comparative shop Boutique, Shopping malls, Super market Stores, Markets and Restaurants.

Offices

These are commercial properties used by the professional, for trade purposes and clerical work. They are places where business is carried out, transacted or a service supplied. Offices could also be a block of rooms, flats or storey building.

Industrial

These refer to properties used primarily for production, manufacturing and distribution of goods. This type of commercial property includes studios and showrooms.

Empirical review

In a study of rental value of commercial properties in Akure, Nigeria, Iroham et al. (2013) identified factors affecting commercial properties value as average floor area, number of floor, prime lending rates, size of sales facility, neighbourhood characteristics, physical characteristics, micro economic indicators vacancy rate, and rental growth rate. Udoekanem et al. (2014) study revealed that real GDP growth and vacancy rate are the major determinants of rental growth in the office property market in Minna as they account for

about 83% of the variation in office property rents in the commercial property market in the city.

Many studies have shown that relationship exists between the economic forces such as interest rate, GDP, unemployment rate, vacancy rate, construction costs and performance of shops and offices property (Foo ng & Higgins, 2007; Holies, 2007; Ke & White (2009). The study of Oyewole and Ajayi (2013) identified macroeconomic variables as the determinants of office property markets in Lagos. Oyewole and Ajayi (2016) asserted that the physical features made significant contribution, and market participants will know how physical features influence the performance of office property market. The trend in returns of office property investments is examined by using multiple regressions to establish a relationship between total return and underlying physical characteristics.

Nor Nazihah et al. (2010) modelled capital value growth in the office market by taking into consideration inflation. The study employed to regression model to model office capital value growth in Kuala Lumpur for 18 years period. Real office rentals growths are found to be significant factors affecting office capital value growth rate in Kuala Lumpur. In recent times, rental movements have been described as an attraction for rental real estate development, as prospect of rental growth is also an important viability consideration by investors. In addition, rental growth rates combined with occupancy levels are being regarded as major long run determinants of property income (Mueller, 1999). Changes in rent invariably affect every type of real estate especially those acquired for investment purposes, although in different degrees. It appears that these changes are more evident in commercial properties. This is probably due to the fact that these properties are majorly built for business transactions and as the name implies could easily be prone to varying economic warp.

Study Area

Kaduna metropolis lies roughly on the latitude 10^o90'North of equator and 7^o50'East of the Greenwich Meridian. Spatially, it covers an area of about 25km long and 8-10km wide from Kawo in the north to the oil refinery in the south (MLC, 2010) with an approximate land size of 210 square kilometres. This metropolis is surrounded by four Kaduna state's local governments of Igabi to the north, Birnin-Gwari to the west, Chikun to the south and Kaura to the east.

This study is confined to Kaduna metropolis, comprising the five wards/districts that make up the current Kaduna North and South Local Governments. This boundary defines the existing physical and infrastructure development plan of the city since 1967 when the city was first officially planned. This is also

important due to rapid growth and development, resulting in conurbation of some Kaduna urban centres, such as Chikun and Igabi Local Government Areas with present Kaduna metropolis. Again, a review of the study area showed a lack of strict compliance of the land uses with the zoning ordinances; there was a gradual intrusion of various land uses among the zones. This necessitated the division of the study area into downtown (Doka district) and uptown (Kawo, Ungwan Rimi, Makera/Gabasawa and Tudun Wada) for location comparison of office and shop property rentals. Specifically, Doka, Ungwan Rimi and Barnawa areas of Makera were chosen for study. This was because they constituted the major nuclei and clusters of commercial properties. Figure 1 describes the study area.
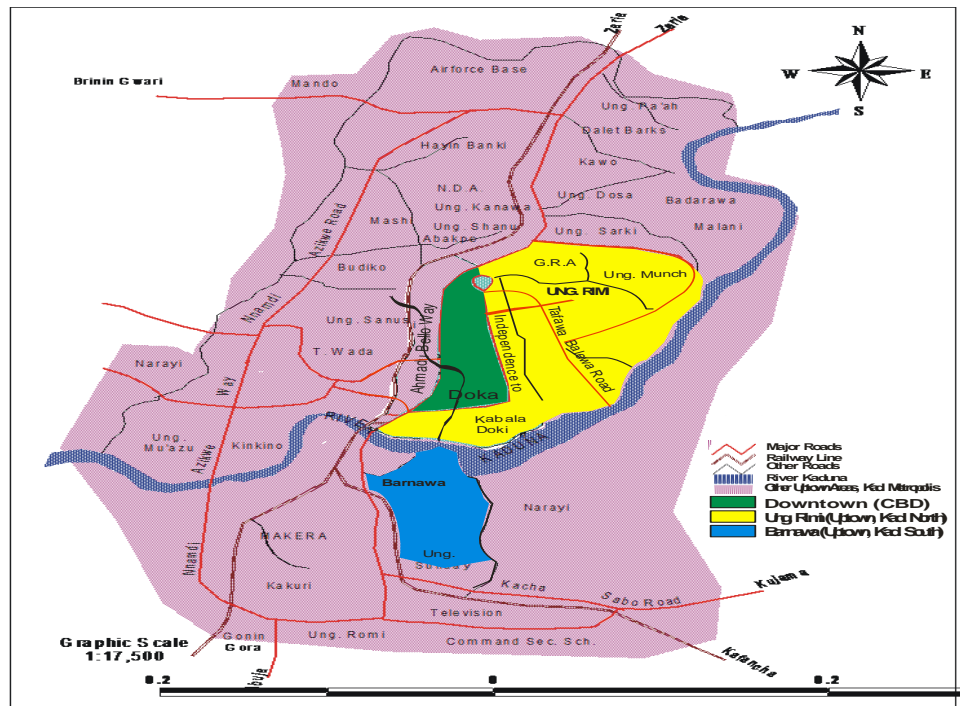

Figure 1: Kaduna Metropolis (Kaduna North and South LGAs)

Research Methodology
Data for this study is mainly primary in nature. Primary data collected are from 19 firms of estate surveyors and valuers that managed commercial properties that constitute the study population in Kaduna city. The distribution of these properties in the study area is detailed in Table 1.

The study adopted multi-stage sampling technique, and the data collected were descriptively analysed using tables and weighted/mean rental values of the studied properties. To determine the performance of office and shop properties and their relationships, rental growth analysis, correlation analysis and Analysis of Variance (ANOVA) were utilised (Nor Nazihah *et al*., 2010; Oyewole, & Ajayi, 2016).

Table 1: Office and shopping complexes sampled

s/n	District	Total sample	Sample Office	Shopping	Stratification group
1	Ahmadu Bello Way (CBD)	33	15	18	Downtown
2	Barnawa (Kaduna South	22	9	13	Uptown
3	Ungwan Rimi (Kaduna North)	21	13	8	
Total		76			
Total questionnaires administered		76			
Total questionnaires retrieved		76			

Results and Discussion

Table 2 shows that the annual rental level of shop property across the commercial zones of Kaduna was neither uniform and nor static within the study period: From one year to another, there is progressive rental increase. As at 2013, the highest rent paid for shop was .

(₦5,910/m²) in CBD whilst the least rent paid was in Ungwan Rimi (₦2,910/m²). This indicates a difference of ₦3,000 in rent per square metre paid on shops in downtown and uptown of Kaduna north and ₦530 between CBD and that of Barnawa, the uptown of Kaduna South.

Table 2: Weighted Rental Levels of Shopping Complexes in Commercial Zones of Kaduna Metropolis 2000-2013 (N'000/m²)

Year	Commercial Zones		
	Downtown	**Uptown**	
	Ahmadu Bello Way Zone (CBD)	**Barnawa Zone (Kaduna South)**	**Ungwan Rimi Zone (Kaduna North)**
2000	1.55	1.52	0.96
2001	1.55	1.55	0.96
2002	1.90	1.82	1.06
2003	2.06	2.11	1.10
2004	2.31	2.15	1.33
2005	2.81	2.87	1.41
2006	2.97	3.06	1.61
2007	3.23	3.1	1.78
2008	3.76	3.27	1.89
2009	4.13	3.53	1.98
2010	4.51	4.07	2.31
2011	4.92	4.41	2.45
2012	5.64	5.15	2.61
2013	5.91	5.38	2.91

Table 3 presents the rental trend of office property across the commercial zones of Kaduna metropolis. Like the shopping complex, the table indicates a progressive positive rental increase. However, rental values of office property exhibited serious faster changes between 2000 and 2013 than shop property in all the study areas. By comparison, the least average rent paid for office and shopping spaces per square metres in the year 2000 were ₦880 (in Barnawa) and ₦960 (in Ungwan Rimi) whilst highest rents paid for same type of property in 2013 were ₦6,140(in CBD) and ₦5,910 (also in CBD).These further indicate that the least average rents for office and shop properties were paid in uptown, whilst highest was paid in the CBD for the same type of properties. Generally, office property rentals perform better in Kaduna north than south during the study period.

Table 3: Weighted Rental Level of Office Complexes in Commercial Zones of Kaduna Metropolis 2000-2013 (₦'000/m^2)

Year	Commercial Zones		
	Downtown	Uptown	
	Ahmadu Bello Way Zone (CBD)	Barnawa Zone (Kaduna South)	Ungwan Rimi Zone (Kaduna North)
2000	1.31	0.88	1.78
2001	1.51	0.91	1.86
2002	1.57	1.21	1.93
2003	1.85	1.36	2.10
2004	2.60	1.40	2.32
2005	2.85	1.92	2.43
2006	3.07	2.09	2.68
2007	3.40	2.16	2.75
2008	3.88	2.36	2.89
2009	4.19	2.65	3.21
2010	4.76	2.75	3.51
2011	5.25	3.00	3.63
2012	5.80	3.33	4.06
2013	6.14	3.98	4.24

Table 4 contains the annual rental growth rates in shopping complexes in downtown and uptown of Kaduna metropolis. Whilst X_1, X_2, X_3 columns represent the annual weighted rental values per square metres, Y_1, Y_2 Y_3 columns contain the annual rental growth rates. The table indicates that the annual rental growth rate of shopping complexes in the study areas is not uniform. On the average, shops in Barnawa performed better than those in CBD and Ungwan Rim in terms of rental growth.

Table 4: Annual Rental Growth Rates in Shopping Complex Across Commercial Zones of Kaduna Metropolis 2000-2013

Year	Commercial Zones					
	Downtown		Uptown			
	Ahmadu Bello Way Zone (CBD)		Barnawa Zone (Kaduna South)		Ungwan Rimi Zone (Kaduna North)	
	X_1	Y_1	X_2	Y_2	X_3	Y_3
2000	1.55	-	1.52	-	0.96	-
2001	1.55	0	1.55	2	0.96	0
2002	1.9	8.7	1.82	17.4	1.06	10.4
2003	2.06	8.4	2.11	15.9	1.10	3.8
2004	2.31	12.1	2.15	1.9	1.33	20.9
2005	2.81	21.7	2.87	33.5	1.41	6
2006	2.97	5.7	3.06	6.6	1.61	14.2
2007	3.23	8.8	3.10	1.3	1.78	6.2
2008	3.76	16.4	3.27	5.5	1.89	6.2
2009	4.13	9.8	3.53	8	1.98	4.8

2010	4.51	9.2	4.07	15.3	2.31	16.7
2011	4.92	9.1	4.41	8.4	2.45	6.1
2012	5.64	14.6	5.15	16.8	2.61	6.5
2013	5.91	4.8	5.38	4.5	2.91	11.5
Mean Rental Growth		9.9		10.6		8.7

Table 5 contains rental growth rates in office property across Kaduna metropolis, calculated from table 4.4. In this table, X_1, X_2, X_3 columns represent the annual weighted rental values per square metres, Y_1, Y_2 Y_3 columns contain the annual rental growth rates.

Although rent paid on office properties in CBD is higher than those obtained on similar properties in the uptown (Barnawa and Ungwan Rimi), the average rental growth in Kaduna South is higher than Kaduna North, irrespective of the location, whether downtown or uptown.

Table 5: Annual Rental Growth Rates in Office Complex across Commercial Zones of Kaduna Metropolis 2000-2013 (₦'000/m²)

Year	Commercial Zones					
	Downtown		Uptown			
	Ahmadu Bello Way Zone (CBD)		Barnawa Zone (Kaduna South)		Ungwan Rimi Zone (Kaduna North)	
	X_1	Y_1	X_2	Y_2	X_3	Y_3
2000	1.31	-	0.88	-	1.78	-
2001	1.51	15.3	0.91	3.4	1.86	4.5
2002	1.57	4	1.21	33	1.93	3.8
2003	1.85	17.8	1.36	12.4	2.10	8.8
2004	2.6	40.5	1.40	2.9	2.32	10.5
2005	2.85	9.6	1.92	37.1	2.43	4.7
2006	3.07	7.4	2.09	8.9	2.68	10.3
2007	3.40	11.1	2.16	3.4	2.75	2.6
2008	3.88	14.1	2.36	9.3	2.89	5.1
2009	4.19	8	2.65	12.3	3.21	11.1
2010	4.76	13.6	2.75	3.8	3.51	9.4
2011	5.25	10.3	3.00	9.1	3.63	3.4
2012	5.80	10.5	3.33	11	4.06	11.9
2013	6.14	5.9	3.98	19.5	4.24	4.4
Mean Rental Growth		12.3		12.8		7

The rental growth rates of office and shopping complexes in each of the commercial zones of the study area as contained in Tables 4 and 5 are summarized in Table 6. As obvious in the rental growth rates summary above, office property averagely out-performed shop in both the CBD and Barnawa, whilst the reverse is the case in Ungwan Rimi in the last fourteen years' period. The table also shows that investments in both office and shop in Barnawa over out-performed similar investments in the CBD and Ungwan Rimi in the last fourteen years (2000- 2013). This may be adduced to the shift in population from Kaduna north to south in response to civil violence and terror attack that threatened the Kaduna north. For example, it is noticeable from tables 5 and 6 that rental growth is sluggish or decline in Kaduna north (CBD and UngwanRimi) in the immediate year following the year civil violence was recorded and conversely

zoomed up in Barnawa (Kaduna south) as indicated in the years 2002-2004 and 2011. This suggests that security threat or its perception influences choice of business location and consequently determines property values. These tables also show that the size or quantum of rent collected on the property does not necessarily indicate the investment growth or prospect; higher rental do not translate to corresponding higher rental growth. It is therefore advisable that commercial property investors should not rely on their intuition alone but consult for expert opinion prior to investment. Although no negative growth was recorded in any location for all the property types studied, the growth rates were not uniform. The annual rental growth rates in Tables 5 and 6 further show alternating out-performances of office and shop; the performance was in tandem. This further implies that office and shop properties are complimentary, as the performance of one appeared to drive the other.

Table 6: Summary of average/mean rental growth rates of office and shopping Complexes in commercial zone of Kaduna Metropolis 2000-2013

	Location	Commercial Property Type	
		Office	Shop
Downtown	CBD	12.3	9.9
	Barnawa Zone (Kaduna South)	12.8	10.6
Uptown			
	UngwanRimi Zone (Kaduna North)	7	8.7

Table 7 compares the annual rental growth rates in office and shop properties in Kaduna CBD for the study period. In the table, whilst column CBD_1 represents the annual rental growth of office property for the study period, column CBD 2 contain same for the shopping complexes in the same location. The table shows that there was alternate out-performance of office and shop properties. However, office appeared to exhibit faster annual rental growth rate than shop property.

Table 7: Rental Growth Rates in Office and Shop in CBD (2000-2013)

Year	CBD 1	CBD 2
2000	0	0
2001	15.3	0
2002	4	8.7
2003	17.8	8.4
2004	40.5	12.1
2005	9.6	21.7
2006	7.4	5.7
2007	11.1	8.8
2008	14.1	16.4
2009	8	9.8
2010	13.6	9.2
2011	10.3	9.1
2012	10.5	14.6
2013	5.9	4.8

Source: Calculated from Tables 2, 3, 4 and 5

Based on the decision rule for hypothesis $H0_1$, the result displayed (p-Values of 0.0811) in Table 8, shows a weak relationship between rental growth in office and shop properties in the Kaduna North (downtown: CBD and uptown: UngwanRimi) contrary to the result in Kaduna South (Barnawa: p-value = 0.0012).

Table 8: Test Result of Pearson Correlation of Office and Shop Rental Growth Rates in the three Commercial Zones

Test Statistic	Commercial Zones		
	CBD	Barnawa	U. Rimi
N	14	14	14
r Statistic	0.48	0.77	0.48
95% CL	-0.07 to 0.81	0.41vto 0.92	-0.07 to 0.81
t Statistic	1.90	4.23	1.90
Df	12	12	12
2-tailed P-value	0.0811	0.0012	0.0811

From Table 9, it is obvious that there is low or statistically insignificant variation in rental growth in office and shopping complexes in Kaduna metropolis, irrespective of whether the property is located in CBD, Barnawa or Ungwan Rimi (downtown or uptown within the study period). This implies that whether investment is made in office or shop property in downtown or uptown of Kaduna metropolis, there is no significant difference in rental growth and by extension capital growth. This further shows that office and shop properties are complimentary

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Table 9: ANOVA Comparing Rental Growth Rates in Office and Shop Properties in CBD, Barnawa and Ungwan Rimi

Sources of Variation	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	324.69	5	64.94	1.02	0.4091
Within Groups	4943.84	78	63.38		
Total	5268.53	83			

Conclusion

The study concludes that both office and shop rentals in Barnawa, an uptown area in Kaduna south out-performed their counterparts elsewhere in Kaduna metropolis, including the CBD. This is contrary to the usual norm and theories that commercial property investments do better in the central business district (CBD). Based on this, it is suggested that commercial property investors should not decide or invest in any type of property, especially commercial based on their intuitions but should consistently seek expert advice from competent estate surveyors and valuers on what to invest in before they do. This will not only help investors to avoid certain risks inherent in that type of investment but guarantee investment success.

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