Assessment of the Locational effect of Religious Campsite Development on Proximate Property Values

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Abstract
The open market value of a real property is usually influenced by its neighbourhood characteristics and attributes of properties in close proximity to it. Thus, it is imperative that an investor in real estate development understands this fact and fathom it into investment decision. Location and other factors that can influence the values obtainable from residential properties include proximity to religious centres, highways, parks and utility lines. This study seeks to evaluate the locational effect of religious campsite – The Redeemed Christian Church of God (RCCG) along Lagos/Ibadan Expressway, Nigeria on the neighbouring residential properties’ values. Structured questionnaires were administered on 318 randomly selected property owners/their agent within 1km radius of the campsite. Data collected were analyzed using logistic regression and t-test statistics. Findings showed that the presence of the campsite development do pose serious traffic congestion, noise and air pollution on its surrounding environment which in turn has significant impact on property values (p-value = 0.004). It was recommended that since the establishment of these sites can influence the rental or capital values of properties in its vicinity, prospective investors are advised to seek the guidance of Estate Surveyors and Valuers when deciding on the arrays of development to be executed.

Keywords: development, neighbouring property, property values, campsites, residential property

Introduction
Real property is a composite good whose value can be influenced by locational factor. Babawale and Adewunmi, (2011) stated that the factors influencing the values of real properties could be its environmental externalities such as noise/air pollution and infrastructural facilities. The location of a property has a great impact on the values obtainable from such property. Location influence on the value of property may arise from any sources, such as accessibility to shopping centre, educational and leisure facilities, proximity to religious centres, highways, mass transit, parks and utility lines (Kwame & Lan, 2010; Aliyu, Rozilah & David, 2011). Garrod and Willis (1994) and Anas (2002) established that tangible location factors are the prime mover in determining the worth of land and landed property. McMillen and McDonald (2002) noted that residential property value is a function of many indicators. The value (sales and rental) of landed property could also be determined by other intangible means such as accessibility, transportation, nearness to school, place of work, place of worship, market, hospital, among others (Wilhelmsson, 2000; Bowes, 2001). The worth of a real estate could be arrived at by looking at the public utilities, facilities and services that go a long way in providing a conducive atmosphere and convenient environment for healthy and comfort living (Clark & Herrin, 2000; Espey & Kwame, 2001).

Carroll, Clauretie and Jensen (1996) stated that neighbourhood religious camp, particularly the large ones, impact negatively on the values of properties in its proximity. Babawale and Adewunmi (2011) also noted that these external factors have either positive or negative impact on property’s rental values. In developing nations like Nigeria, several religious centres are often sited arbitrarily which in turn affects property values either positively or negatively. Conversely, individual property owners may wish to know how their property value will be affected by compatible land uses or otherwise. Religious centres in Nigeria are prone to unrivalled enthusiasm, excitement, loud singing, clapping, bell-ringing and drumming, which in some cases, are amplified with loud speakers mounted on roof tops (Adeniran, 2014). People living near religious centres, on service days and other special events, are faced with traffic congestion, attendant parking problems, pollution from automobile exhaust; and sometimes robbery attacks within the vicinity. This may negatively affect the ability of nearby residents to use and enjoy their
property. There may also be creation of obnoxious public perceptions which may reduce the marketability and, therefore, the value of property.

In Nigeria, religious organizations are becoming massive and consequently, there is an increase in the creation of religious camps to serve as prayer grounds for members and trading points for marketers and companies to display their products during gatherings in these camps. The events held in these camps have led to the influx of people which have its impact on the surrounding environment. The establishment of religious camps is on the increase as a result of expansion of religious bodies all over the world (Babawale & Adewunmi, 2011). Over the last twenty (20) years, there has been an increase in religious camps developments in many parts of Nigeria, particularly the Lagos/Ibadan Expressway. Siting of these camps is done without recourse to incompatibility in use and negative spill-over effects on adjoining properties from religious camp development.

Religious facility is the centre for worshipping and socializing, and regarded as a symbol of morality. Different denominations of religious centres have also produced mixed externalities on housing value (Carroll et al, 1996). However, while neighbourhood qualities may appear to be a positive benefit to property values, they can also be detrimental. Des Rosiers (2002) submitted that seemingly negative neighbourhood qualities could also be a benefit to property values, while we might assume that neighbourhood religious centre would enhance a sense of community, and therefore, have a positive influence on property values. The location of the religious camps may possibly motivate all manner of commercial activities; warehouses, hotels, restaurants and the like - that may be desirable in terms of their effects on nearby property rental value. Furthermore, both the religious camp and supporting commercial real estate development generate demand for road and highway improvements to accommodate the increased vehicular traffic load that may further affect housing prices (Bouvier et al., 2000; Flynn et al., 2004).

The positive benefits of religious centers may greatly outweigh the adverse effect on property rental values to the property owners, larger churches can cause impacts similar to commercial uses if they operate throughout the week and into the night (Adeniran, 2014). The presence of these religious camps may create a favourable or an adverse public perception which can increase or reduce the marketability and, therefore, the value of properties in the neighbourhood of the religious camps (Boyle & Katherine, 2001). Chalmers and Scott (1993) pointed out that an adverse public perception regarding a property with some type of environmental defects and crime may exact a penalty on the marketability of the property and hence its value.

Weber, Bhatta and Merriman (2007) attributed the majority of property value appreciation to demand increases created by a growing amenity base. According to Carroll et al (1996), real property values decrease, at a decreasing rate, as distance from neighbourhood church increases. On the contrary, Danderson (2003), pointed out that the traffic and tourist caused by religious centres cause property to lose their value. Though, religious centres by themselves do not detract neighbourhood property values, but the large size and the elaborate nature of temples is the detriment. Crompton (2001) asserts that the value of a specified amenity is at least partially captured in the price of residential properties proximate to it. Assuming that property locations adjacent or near to an religious centre are considered desirable, the extra money that home buyers are willing to pay to acquire such a residence represent a capitalization of the land into proximate property values. Additionally, there is evidence that proximity to a dis-amenity, even if that dis-amenity is not visible and is not so close as to have obvious nuisance effects, may still decrease a home’s sales price, as has been found to be the case for landfills (Thayer, Albers & Rahmatian, 1992).

Do, Wilbur and Short (1994) examined the externalities of neighbourhood churches on housing value in Chula Vista, California and found out that the effect of churches on sales price was negative up to approximately 850 feet radius to their locations. Carroll et al., (1996) analysed the impact of neighbourhood churches on residential property values by investigating nearly 5,000 residential property transactions in Henderson, between January 1986 and December 1990. The study found that churches created positive externalities on housing values as amenities. Findings emphasised that large number of churches concentrated in particular area and increase
neighbourhood housing values when compared to small number of worship centres. According to Chan (2001), disamenity is a loss to property value due to the presence of a risk perception-driven market resistance, which not only affects contaminated property, but can also affect the value of properties in close proximity to sources of contamination. Proximity to worshipping place may have different effects in different parts of an urban area or even in different parts of a large municipality (Aliyu et al, 2011).

Ooi (2004) examined the effect of several different religious centres - Christian church, Chinese temple, Muslim mosque, and Hindu temple – on multi-family dwelling units in highly dense residential areas in Singapore. The author found negative effects of the religious facility resulted from noise, pollution from exhaust, and the presence and use of the church by people who ask for charity. On the other hand, positive externality effect of the place of worship on high-rise apartment values extend out to a radius of 650 meters and are more pronounced within 200-300 meters. The study however, did not consider religious camps as well as other types of property. Simons and Saginor (2006) identified religious center as source of externalities and confirmed that externality-induced changes can have either a negative or positive effect on prices. Religious centers exhibit some of the same characteristics found by other externality studies to produce measurable effects on nearby residential property values. Carroll et al., (1996) pointed out that some religious centres create positive externalities to nearby property values.

In Nigeria, Iroham and Oloyode (2010) studied the location of worship centres and its effect on residential property values (a case of Living Faith Church, Ota). The study revealed that the location of religious centres had significant positive impacts on the residential rental values. The study however compared only mean of residential property values before and after the siting of the churches. However, the study used only statistical mean in the methodology to compare their results. Babawale and Adewumi (2011) conducted research on the impact of neighbourhood churches on housing prices on selected areas in Lagos metropolis, using hedonic model. The study however, based its empirical study only on rented apartments and as well on churches located within residential neighbourhood. The study revealed that there were positive as well as negative effects of churches on their immediate environments, particularly the study area.

This present study evaluates the locational effect of the Redeemed Christian Church of God (RCCG) – a religious campsite, along Lagos/Ibadan Expressway, Nigeria and its associated relationship with neighbouring residential property values. The questions pursued in this study are:

i. What influence do religious camps pose on proximate residential properties?

ii. What impact do religious campsites have on proximate property rental values in the study area?

This paper is structured to include an introduction to the background of the study. This is followed by the description of the study area. The paper then highlights the research methodology of the study, the results and a discussion of findings from the research. It concluded with final remarks and recommendations.

The Study Area

The focus of this study is on religious camp development along Lagos/Ibadan Expressway. The Expressway serves as inter-state highway to Oyo and Ogun States. According to the Social Business and Economic News (2012), approximately 20% of the length of the expressway falls within Lagos State, 60% falls within Ogun State while the remaining 20% falls into Oyo State territorial boundary. The RCCG was founded in 1952 by Josiah Akindayomi. It was then a small, localised Pentecostal denomination in Southwestern Nigeria. Since then, the church has been growing. However, since 1981, after Enoch Adejare Adeboye, a former university lecturer, became the General Overseer following the demise of the founder of the Church, it has become a movement of global significance having more than 6000 branches nationwide and many more internationally, making it one of the fastest growing Pentecostal churches in the world (Adeboye, 2007).

The origin of religious camps along Lagos/Ibadan Expressway dated back to 1983, when the Redeemed Christian Church of God (RCCG) began the construction of its permanent camp site located at kilometer 46 along the Expressway. Prior to this time, most Pentecostal churches use mountains and hilltops as prayer camps, though these places were not easily accessible to worshippers. Lagos-Ibadan Expressway at that time was regarded as den
of thieves and armed robbers, a nightmare for travellers. The decision to site the RCCG camp along this road was highly criticized (Olubiyi, 2015), but today many other religious group have established theirs along the same road. Since the establishment of the religious campsite along the Expressway, many developments have been attracted to it and the surrounding areas. This is evident in highbrow properties erected by individual worshipers, property development companies, corporate organisations, groups and associations. Also, the demand for land in the neighbouring communities and tremendous growth experienced in housing construction cannot go unnoticed.

Figure 1. RCCG National Campground and its environs
Source: Google Map, 2018

Materials and methods
The data employed for the study was sourced from residents and owners of residential properties around the RCCG religious campsite. It is common in literature that effects of an imposing externality on proximate property values have been examined within certain distance around it. For instance, Akinjare et al. (2011) examined the effect of sanitary landfill on properties within 1.2km distance around it. Mmom and Mbee (2013) measured the values of real estates within 500meter radius from landfill. Nwosu and Olofa (2015) adopted 300meter radius to dumpsites in Ibadan. Properties within a kilometer (1km) radius of the RCCG camp were considered influenced by it in this study. Notable communities that falls within these areas include Lotto, Loburo, Mowe, Arepo etc

The total number of approved and registered houses in the study areas was obtained from the Directorate of Land Information Systems in the Lands Bureau and Ogun State Urban and Regional Planning Board, Abeokuta. The data available shows that 10,000 houses were found within the radius of investigation in the study area. Adopting the Kothari (2004) sample size formulae estimate, a sample size of 370 houses was obtained. The random sampling technique was employed in administering 370 closed-ended questionnaires to the respondents. Out of the total questionnaires administered, only 318 questionnaires representing 85.9% of the total questionnaires distributed were retrieved and employed for analysis of the objectives.
The data analysis for the study was done using the Weighted Mean Score (W.M.S), logistic regression analysis and t-test statistics. The 5-point scale was employed in the WMS to evaluate the influence that religious camps pose on proximate residential properties. The logistic regression analysis was used to assess the impact of religious camps on property rental values in the study area. Evaluation of the relationship between dependent and independent variables was carried out using the hedonic approach as it is the most adequate tool for unraveling the cross-influences between the several factors affecting property values and also to establish the implicit price of individual residential attributes (Des-Rosiers, 2002).

Table 1 shows the operationalization of variables employed for the hedonic regression analysis. Hedonic equation is a regression of expenditure on characteristics that determine house rent. The model assumes that value of houses can be decomposed into the value of its constituent characteristics (e.g. bedrooms, bathrooms, distance from amenities, age) and the model provides estimates of the marginal contribution of each property attribute to the total price. Hedonic regression has become the standard approach for modelling house prices (Schulz & Werwatz, 2004). The model posits that a good possesses a myriad of attributes that combine to form bundles of utility-affecting attributes that the consumer values (Chin & Chau, 2003).

Table 1: Operationalization of variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Code</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance to religious camp</td>
<td>DISTi</td>
<td>Actual in meters</td>
</tr>
<tr>
<td>Plot size</td>
<td>PLTSIZ</td>
<td>Actual in m²</td>
</tr>
<tr>
<td>Number of rooms</td>
<td>NOROOM</td>
<td>actual number in counting</td>
</tr>
<tr>
<td>Number of conveniences</td>
<td>NOCONV</td>
<td>actual number in counting</td>
</tr>
<tr>
<td>Distance to public utilities</td>
<td>DIS_PUB</td>
<td>Actual in kilometers</td>
</tr>
<tr>
<td>Security of the Neighbourhood</td>
<td>SECNEIGH</td>
<td>1 = if neighborhood is secured from forms of social vices, 0 = if otherwise.</td>
</tr>
<tr>
<td>Road Access</td>
<td>RDACCESS</td>
<td>1 = if the nature and access roads is good, 0 = if otherwise.</td>
</tr>
<tr>
<td>Property Value (Rental)</td>
<td>PROPVAL</td>
<td>Actual in naira</td>
</tr>
<tr>
<td>Property Condition</td>
<td>PROPCOND</td>
<td>1= if the condition of property is good, otherwise 0</td>
</tr>
</tbody>
</table>

Source: Author’s compilation, 2017

The hedonic pricing model tends to estimate the price of the house as a function of its attributes. The hedonic price model employed is therefore:

\[ P = \beta_0 + \beta_j X_j + \beta_d X_d + u \]  \hspace{1cm} (i)

where \( P \) = property value (the dependent variable); \( \beta_0 \) = a constant term; \( \beta_j \) = estimated coefficients for continuous variables; \( \beta_d \) = estimated coefficients for distance variable; \( X_j \) = jth property characteristic; \( X_d \) = distance to religious camp; \( u \) = the error term.

The hedonic equation for determining the externality effects of religious camp proximity on rental value of property in the study area is in the form:

\[ RV_i = F(X_{ij}, DIST_i) \]  \hspace{1cm} (ii)

where \( RV_i \) is the rental value of apartments; \( X_{ij} \) is a set of explanatory housing-rent variables (housing/neighborhood attributes) for a given property \( i \); \( DIST_i \) is the distance of property \( i \) from the nearest neighborhood religious camp property measured in meters.

Result and Discussion

Table 2 shows the influence of religious camps on proximate properties. The socio-economic and environmental characteristics as identified in the literature include: noise pollution, air pollution, traffic congestion, crime, tourist attraction, population increase, promotion of moral value, generation of employment, security, decline in property value, increase in property value, attraction of infrastructural facilities, haphazard development and attraction of manufacturing industries. The investigation suggests that the siting of religious camps brings about population
increase to its surrounding environment as it ranks 1st with a mean value of 4.823 while haphazard developments and increase in property values ranked 2nd with a mean value of 4.695 respectively.

**Table 2: Influence of religious camps on proximate residential properties**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Mean Score</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population increase</td>
<td>4.823</td>
<td>1st</td>
</tr>
<tr>
<td>Haphazard development</td>
<td>4.695</td>
<td>2nd</td>
</tr>
<tr>
<td>Increase in property values</td>
<td>4.695</td>
<td>2nd</td>
</tr>
<tr>
<td>Generation of employment</td>
<td>4.413</td>
<td>4th</td>
</tr>
<tr>
<td>Attraction of industries, shops and other service industries</td>
<td>4.390</td>
<td>5th</td>
</tr>
<tr>
<td>Attraction of infrastructural facilities</td>
<td>4.132</td>
<td>6th</td>
</tr>
<tr>
<td>Indiscriminate sewage/refuse dump</td>
<td>4.108</td>
<td>7th</td>
</tr>
<tr>
<td>Traffic congestion</td>
<td>4.038</td>
<td>8th</td>
</tr>
<tr>
<td>Noise pollution</td>
<td>3.099</td>
<td>9th</td>
</tr>
<tr>
<td>Promotion of moral values</td>
<td>2.958</td>
<td>10th</td>
</tr>
<tr>
<td>Increase in crime rate</td>
<td>2.113</td>
<td>11th</td>
</tr>
<tr>
<td>Tourist attraction</td>
<td>1.080</td>
<td>12th</td>
</tr>
<tr>
<td>Decline in property value</td>
<td>0.892</td>
<td>13th</td>
</tr>
</tbody>
</table>

*Source: Field Survey, 2017*

The increase in population experienced as a result of the location of RCCG campsite corroborates the experience related by Iroham and Oloyede (2010) in which the population of adjoining/neighbouring communities around Living Faith Church, Ota, Nigeria, grew tremendously after the establishment of the Church in the area. This also pushed up the rental values obtainable from properties. The surge in the population is usually experienced during national/international programmes organized by the Church. Such programmes tagged Special Holy Ghost Service, Annual Convention, and Holy Ghost Congress mostly hold three times annually in March, August and December respectively. These programmes draw all classes of people into the campground. The haphazard developments that result from the siting of the campsite cannot be divorced from ready market for properties of any types and standard due to surge in population. The therefore implies that despite evidence of haphazard development, real properties are benefiting immensely in increase in their values (both rental and capital values). The campsite has also created employment/business opportunities, and attracted industries, shops and other service industries. All these have mean score well above 4.0. However, apart from positive influences, the campsite has resulted to nightmare in terms of indiscriminate sewage/refuse dump and traffic congestion. The findings of this study was corroborated by that of Do et al. (1994) where it was established that noise from church bells/loudspeakers/musical instruments, traffic and parking problems and pollution from automobiles are negative influence of churches on proximate properties. Aside the negative influence of religious camp developments on proximate property values, the study also showed the presence of some positive influence of the campsite development on the proximate property values. This can be attributed to the fact that they create positive externalities such as a symbol of morality and serving as a hub of commercial activities that draws people together for worship and socials. This was also supported by the view of Iroham and Oloyede (2010) that neighborhood churches are amenities that influence residential property values.

Table 3 shows the results of the regression analysis for the impact of religious camps on rental values of the residential properties in the study area. Only three of the variables pose distinctive influences on property value at 99% confidence level. The variables are the number of rooms, number of conveniences and distance from the religious camp.
The model summary in Table 3 shows that the R square value of 0.852 indicated that the regression model explained about 85.2% of the total variation in property values (dependent variable) as accounted for by the independent variables. The Durbin Watson (DW) statistics revealed the autocorrelation in the residuals from the statistical regression analysis. The rule of thumb for decision making on DW is that a relatively normal values ranges between 1.5 and 2.5. The DW statistics for the data set is 2.337. The value fall within the acceptable range, connoting that there is no autocorrelation in the data used for the regression analysis. The Table also showed the ANOVA statistics and results revealed that F-statistic (62.184) and p-value (0.00). The p-value indicates the statistical significance of the regression model that was run. The p-value of 0.00 shows that it is less than 0.05 which is the acceptable alpha level. This implies that the regression model is a good fit for the data. The standardized beta coefficients which provide the order of importance or relative contribution of the housing attributes showed that number of rooms makes the largest contribution to improving the values derived from proximate properties to campsite developments, this is closely followed by number of conveniences, and then distance from the religious camp.

It can be deduced that number of rooms; number of conveniences; distance to religious camp; security of the neighbourhood; condition of access road and distance to public utilities are positively correlated to property rental values. This implied that since religious campsite pose both positive and negative externalities on proximate properties, it is suffice to conclude that the condition of the property in terms of rooms and conveniences provision, accessibility of such property, condition of access road to the property will go a long way in the determination of rental or capital values placed on such properties. This finding corroborate that of Babawale (2013) that a unit increase in the number of bedroom and bath/toilet results in increase in house rent for property in close proximity to church premises. According to the result from Carroll et al. (1996), neighbourhood churches are amenities that enhance property values. The enhancement of property values decline as the distances between churches and properties become larger. Therefore, the result in this study can prove that RCCG as a religious campsite development is an amenity that increases its proximate property values and therefore negates the findings of Carroll et al. (1996).

Conclusion and Recommendations
This study has investigated the effect of the development of RCCG religious campground along Lagos/Ibadan Expressway on the residential property values within 1km radius of the campsite. Some of the factors that caused
this upward trend in rental values include population growth in these areas and its consequent demand for good quality residential property. The factor was observed to be as a result of the proximity of major religious camps in the study area. The presence of the religious centres in the study area was observed to have influenced four major factors which included generation of employment, population increase, attraction of infrastructural facilities and increase in property rental values. It is therefore recommended that:

a) Since religious camp sites developments brings about increase in property values, property investors are encouraged to invest more and seek the guidance of Estate Surveyors and Valuers on the type of property development to embark on and that of the financial institution on the type of mortgage loan available.

b) Property developments in proximity to religious camp sites should be monitored to ensure strict compliance with town planning laws and building in order to curtail haphazard developments of buildings.

c) The government should address the problems of indiscriminate sewage/refuse dumping and noise pollutions in the communities in proximity of the religious camp by enacting strict laws that would check the activities.

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