

ANALYSIS OF LOCATIONAL PATTERN OF SHOPPING MALLS IN THE FEDERAL CAPITAL CITY, ABUJA, NIGERIA

BY

Aruya, B. *, Musa, I.J. and Ismail, M.

Department of Geography and Environmental Management,
Faculty of Physical Sciences, Ahmadu Bello University, Zaria-Nigeria

*Correspondence email: blessingaruya1@gmail.com

ABSTRACT

The emergence of shopping malls around the world as a major driver of social interaction and entertainment has left marketing managers faced with dynamic shoppers' behavior in a competitive market environment. The study analyzed the locational pattern of shopping malls in the Federal Capital City (FCC), Abuja. The study covered the shopping malls in five districts of phase one of the FCC. A total of fifty-two malls were used for the analysis. Fifteen mall managers and some officials of Federal Capital Development Agency (FCDA) were also interviewed. The fifteen mall managers were cut across the five districts, representing three mall managers from each district. GPS and ArcGIS 10.3 were used in capturing and analysing the data on the spatial distribution of the shopping malls. The result of the analyses shows that Garki and Central district showed clustering of malls while Asokoro, Maitama and Wuse districts showed a more dispersed pattern. However, when the entire shopping malls in the study area were considered as a whole a clustered pattern emerged. The reason for this as identified by shopping malls managers and officials of the FCDA is the economic advantages of the agglomeration of shopping malls such as easy access to power, market, patronage, security, transportation and other social facilities as confirmed by the interview sessions. The study therefore recommends that the FCDA should ensure that further allocations of land for shopping malls are sited away from already existing ones.

Key words: Federal Capital City, Location pattern, Shopping malls

INTRODUCTION

In recent times, there has been an accelerating increase in the commercial sectors especially in retailing. There is a growing movement in the establishment of shopping malls across the globe and Nigeria is not an exemption. Shopping malls are becoming dynamic, deviating from the conventional shopping centres to creative structures that satisfy modern consumers (Dubihlela and Dubihlela, 2014). Shopping malls play a major role in consumers' lifestyle as it influences their choice of goods and services (Terblanche, 1999). They have become not only a centre for shopping but also a community centre for social and recreational activities (Ng, 2003). Stores, food courts, restaurants, cinemas, children's play areas, interactive entertainment areas, social use areas, relaxation spaces and promotional areas are now major components of any shopping mall (Terblanche, 2006). Shopping malls have also served as important venues for meetings mostly for young people (Wagner, 2007).

A shopping mall is an organized building that offers different products and services to customers in a bid to achieve satisfaction. The kind of items found in a mall ranges from electronics, cosmetics, restaurants, cinemas, banks, clothing, beverages among others and these items are arranged in different sections (Acholla, 2017). In present times, Nigeria has three major types of retail outlets the Local Market, Street Trading and the Modern Outlet, with the

emergence of shopping malls and shopping plazas, now making the waves in the modern retail outlet (Igwe and Chukwu, 2016). Malls in Nigeria have many shops which companies and individuals rent to set up their own stores (Wagner, 2007). Okeahialam (2010) is of the opinion that shopping malls in Nigeria are generally referred to as, 'Plaza'. They are usually large commercial storey buildings housing retail shops and corporate offices.

Generally, there are many factors that influence the location and distribution of malls such as income, transportation network, space, market, labour and infrastructure. The location of shopping malls should be accessible to the potential target group of customers (Kotler and Armstrong, 2004). Any mall located in a far distance has a negative effect on the selection of a retail store through reducing frequency of customers visiting a store. Stores located in the centre of city benefit from their next door to remote customers (Chaiyasoonthorn and Suksangiam, 2011).

Accessibility, a heterogeneous mix of retail outlets, unique environment, safety and leisure are the key service features that differentiate the retail experience of shopping malls from that of other shopping destinations, such as freestanding stores, departmental stores, focused centres, rejuvenated high streets vendors, retail parks, specialty and festival centres, as well as other television or e-retail stores. In the views of Singh and Dash (2012) due to the intense competition shopping malls have to present a unique and favourable image. This differentiating image can be created by combining various features at one place.

Several studies have been carried out to analyse locational pattern of shopping malls. For instance, Amobichukwu and Olumide (2013), in a study on the spatial pattern of shopping malls in Ibadan north, Oyo State using the Nearest Neighbor Analysis revealed that most shopping malls in the area are having a clustered pattern against the hypothetical believe of being evenly distributed over space. This is because houses in Ibadan also follow the same pattern and provides high demand for such facilities. It can also be attributed to the fact that shopping malls tend to be located in areas that can guarantee a sustainable level of customers hence patronage that will induce profitability. Jaafaru (2018), also examined the pattern and extent of relationship among factors that stimulate consumer patronage of shopping malls in metropolitan Lagos. Data was collected using a combined method of questionnaires, survey and interview. Analysis was done using descriptive statistics and a regression model. Results revealed that ambience of shopping mall, assortment of stores, sales promotion and comparative economic gains in the malls attract higher customer traffic. The analysis also revealed that the class difference of consumers play an important role in choosing shopping malls thus, there is a significant relationship between shopping malls sales growth and middle and upper class patronage.

A number of malls are found in major cities of Nigeria especially Abuja being the administrative headquarter of the country. It is a planned city with an organized land use which is expected that retail centres especially shopping malls are located in areas accessible to the increasing population and serving their increasing needs. This study therefore analyses the locational pattern of shopping malls in Phase one of the Federal Capital City (FCC) Abuja. The specific objectives are to identify, map and examine the spatial pattern of shopping malls in the FCC.

THE STUDY AREA

The Federal Capital City (FCC) Abuja is located between Latitudes 7°30'55"N - 8°55'39"N of the Equator and Longitudes 7°20'00"E - 7°32'30" East of the Greenwich Meridian (Figure 1). The area is bounded to the North by Bwari District, East by Gwaska, South by Kuje District and West by Mambilla Plateau. It has a land mass of 275.5 square km. The Federal Capital City has two main seasons which are rainy and dry season. The area experiences 7 months of rainfall, between April to October. The rainfall ranges between 1200mm to 1700mm, with a mean of 1631.7mm. During the dry season, the temperature varies between 30°C and 37°C. This period is characterized by high diurnal ranges, which drops to as low as 17°C in the dry season (Ujoh, Kwabe and Ifatimehin, 2010).

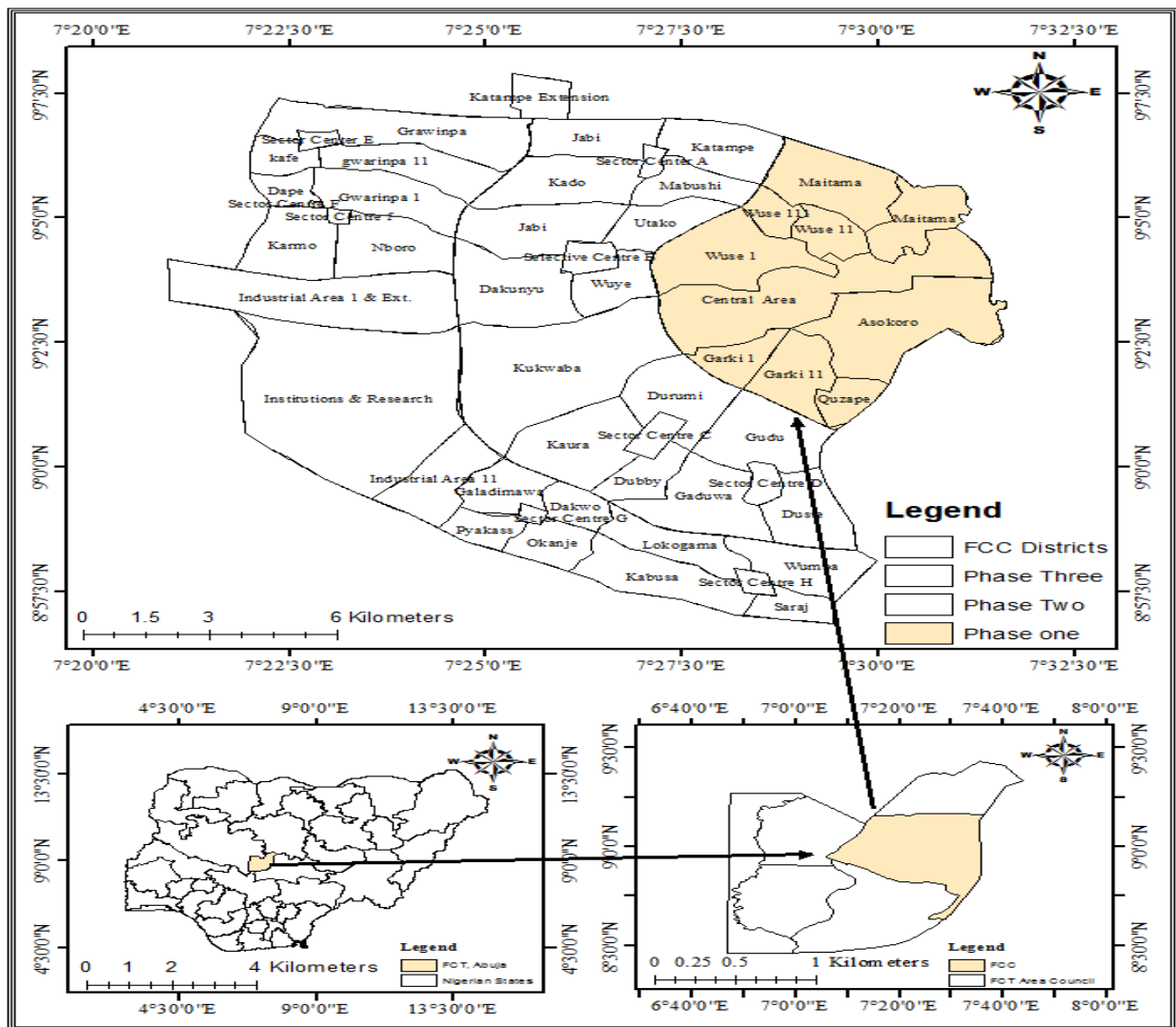


Figure 1: Federal Capital City, Abuja.

Source: Adapted from the Administrative Map of Abuja, 2018

Abuja is the capital city of Nigeria, it is located in the centre of the country, within the Federal Capital Territory (FCT). The Federal Capital City is located in municipal area district. It has a population of 776,298 as of 2006 population census (NPC, 2009). It has a projected population

of 1,010,945 (2018). Out of the three (3) Phases (Phase 1, Phase 2 and Phase 3), Phase 1 was selected because most of the shopping malls were located there. Phase 1 of the Federal Capital City has a population of 217,531 (NPC, 2009). The area has a projected population of 283,444 in 2018. Contrary to the dream of Abuja being a city that would provide equal access to Nigeria’s diverse population (AGIS, 2018), only the rich and political elite live in Maitama, Asokoro and Wuse II districts’ exclusive houses. While the middle-income and other senior government employees often reside in Garki and Wuse I districts in Phase I, Phases II and III, the poor live in the city’s squatter and satellite settlements. This could be the reason why majority of the malls is located in the City centre of Wuse, Asokoro, Maitama and Garki and not in squatter settlements (AGIS, 2018).

Abuja is basically known to be involved in secondary and tertiary activities although a small portion of the population are also involved in primary activities such as farming. The rapid structural development of Abuja has also led to the development of a lot of businesses, including shopping malls (Ujoh, et al., 2010).

MATERIALS AND METHODS

The data used for this study was obtained from primary and secondary sources (Table 1). The mall managers and the Head of the Federal Capital Development Authority (FCDA) were interviewed.

Table 1: Types and Sources of Data

PRIMARY DATA			
S/N	Type of Data	Sources	Purpose
1	Coordinates of the malls	Hand Held GPS	To map the spatial distribution of the malls
2	Factors determining location of shopping malls	Interview	To examine the determinants of location of Shopping Malls
SECONDARY DATA			
3	Number of malls in the area	Federal Capital Development Authority	To determine the number of malls to be selected

Source: Authors Compilation, 2019

There are 52 malls in the five districts of Phase one of the Federal Capital City Abuja (Table 2). All the malls were selected and considered for assessment. Nearest Neighbor Analysis on ArcGIS 10.3 was used in analysing the data on the spatial distribution of the shopping malls. Also, an in-depth interview was conducted with six staff of the Federal Capital Development Authority (FCDA) and fifteen mall managers across the five districts, representing three mall managers from each district. The results were displayed in the form of maps, tables and charts.

RESULTS AND DISCUSSION

Characterization of Shopping Malls in the FCC

The shopping malls in Phase One of the FCC are distributed across five districts which are Garki, Central District, Wuse, Maitama and Asokoro as shown in Table 2. From Table 2, it can be seen that the malls are not evenly distributed across the districts. This may be closely linked to patronage and population distribution.

Table 2: Characterization of Shopping Malls in the Study Area

District	Shopping Malls	Station Code	Coordinate
Garki	City Plaza	G1	9°2'51"N - 7°30'13"E
	Shop D11 Plaza	G2	9°2'10"N - 7°29'6"E
	Powa Plaza	G3	9°2'34"N - 7°30'52"E
	Shekinah Plaza	G4	9°1'12"N - 7°29'23"E
	Garki Mall	G5	9°2'42"N - 7°30'37"E
	Adisa Plaza	G6	9°1'39"N - 7°28'26"E
	Anon Plaza	G7	9°1'6"N - 7°28'19"E
	Suite 520, MKK Plaza	G8	9°1'4"N - 7°28'18"E
	Suite D82, EFAB Mall	G9	9°3'38"N - 7°30'13"E
	Plot 596, Ahmadu Bello Way	G10	9°58'14"N - 7°29'11"E
	Plot 796, Ahmadu Bello Way	G11	9°1'29"N - 7°29'11"E
	Wada Aliyu Street Plaza	G12	9°1'12"N - 7°29'23"E
	Samuel Ladoke Boulevard Plaza	G13	9°1'4"N - 7°25'23"E
	Samuel Ladoke Boulevard Plaza	G14	9°1'8"N - 7°29'36"E
	Samuel Ladoke Boulevard Plaza	G15	9°1'33"N - 7°29'52"E
	Damaturu Crescent Mall	G16	9°1'41"N - 7°29'36"E
	Jamare Close, Garki Mall	G17	9°1'50"N - 7°29'38"E
	Shop B804 Shopping Complex	G18	9°2'9"N - 7°29'8"E
Central District	Suite 210, Jinifa Plaza	C1	9°3'19"N - 7°29'44"E
	Nicon Plaza	C2	9°3'1"N - 7°29'55"E
	Grand Square Plaza	C3	9°3'12"N - 7°29'44"E
	The Tropical Mall	C4	9°3'15"N - 7°28'45"E
	NACRDB Plaza	C5	9°3'55"N - 7°29'7"E
	Millenium Builders Plaza	C6	9°3'7"N - 7°51'44"E
	GF1 Plaza	C7	9°3'18"N - 7°29'22"E
	Gudu Plaza	C8	9°1'57"N - 7°29'47"E
	Plot 1084 Plaza, Abuja	C9	9°1'39"N - 7°28'26"E
	Gudu Plaza	C10	9°1'5"N - 7°28'18"E
	Samuel Ladoke Boulevard Plaza	C11	9°1'42"N - 7°29'28"E
	Samuel Ladoke Boulevard Plaza	C12	9°3'26"N - 7°51'22"E
	239/240 Herbert Macaulay Plaza	C13	9°3'37"N - 7°53'12"E
	Ceddi Plaza	C14	9°3'58"N - 7°49'33"E
Wuse	Shippers Plaza	W1	9°4'37"N - 7°27'22"E
	Suite 4, Chocolate Mall	W2	9°4'11"N - 7°29'43"E
	Plot 215, Discovery Mall	W3	9°4'26"N - 7°29'31"E
	Suite C8, Poly Plaza	W4	9°4'22"N - 7°29'35"E
	Conakry, Rochas Plaza	W5	9°4'39"N - 7°28'5"E
	Suite 5, Dee Awwal Plaza	W6	9°3'29"N - 7°28'31"E
	Sherif Plaza, Aminu Kano	W7	9°4'57"N - 7°28'3"E
	Site B49/50, Banex Plaza	W8	9°4'57"N - 7°28'2"E
	15 Moundou Street Plaza	W9	9°2'26"N - 7°30'11"E
	38 Aminu Kano Crescent Plaza	W10	9°4'49"N - 7°27'54"E
	507 Lumbumbashi Street Plaza	W11	9°3'46"N - 7°28'15"E
Maitama	Suite A25, Shopping Complex	M1	9°5'19"N - 7°30'53"E
	Landmark Plaza	M2	9°6'34"N - 7°30'1"E
	GF06 Maitama Mall	M3	9°5'35"N - 7°30'52"E
	Dunes Centre Mall	M4	9°5'2"N - 7°29'6"E
	Oakland Mall	M5	9°5'3"N - 7°29'4"E
Asokoro	Plot 1901, Hillside Plaza	A1	9°3'9"N - 7°32'32"E
	Asokoro Shopping Mall	A2	9°2'9"N - 7°31'15"E
	Blinkers Plaza	A3	9°2'21"N - 7°32'31"E
	Oxygen Mall	A4	9°3'59"N - 7°30'22"E

Source: Author's Field Work, 2019

Spatial Distribution of Shopping Malls in the Study Area

Locational pattern of shopping malls across space is a major determinant of its patronage and utilization. The accessibility and patronage of shopping malls is dependent on its location. Figure 2 shows the distribution of shopping malls in the study area.

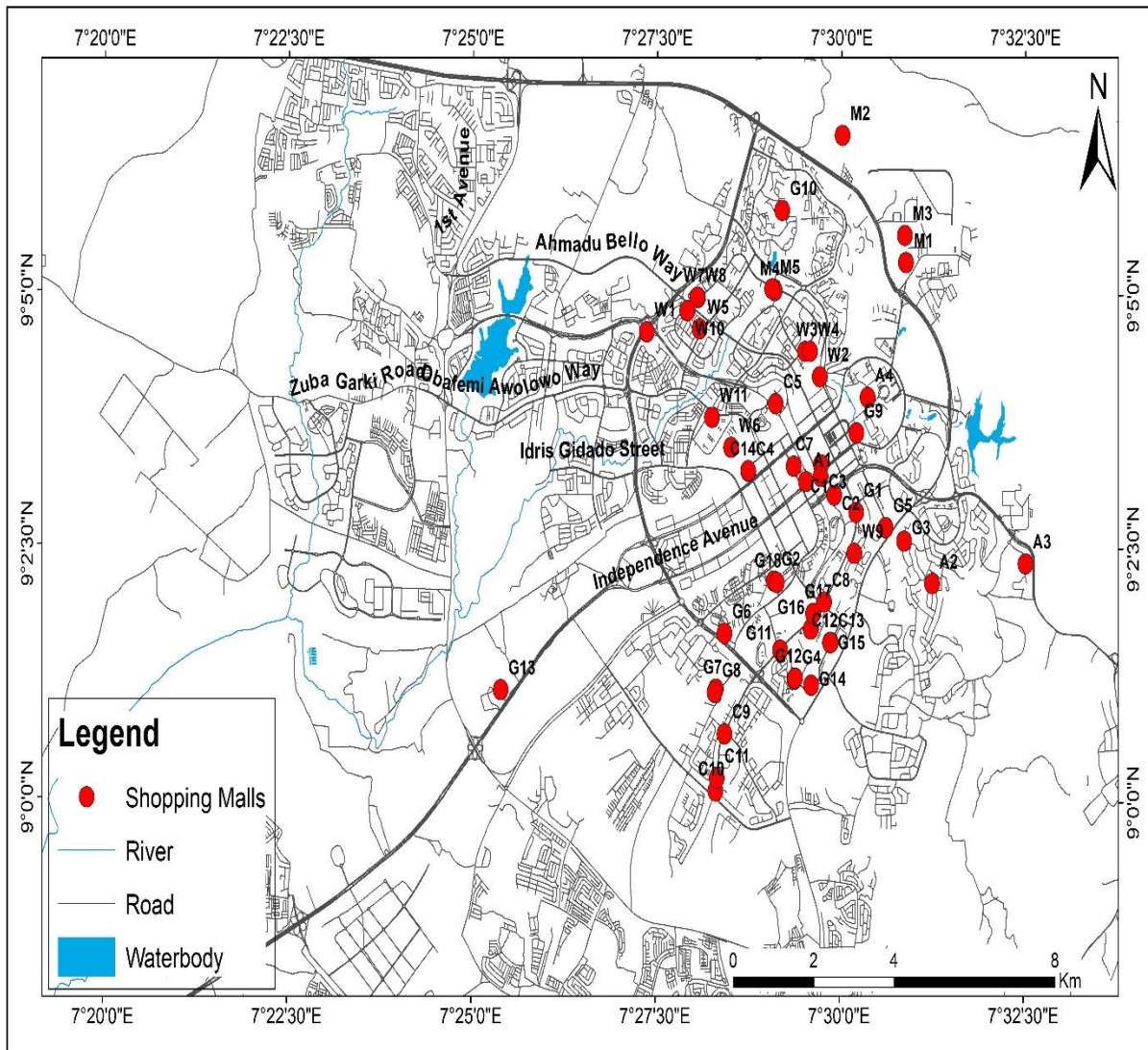


Figure 2: Locational Distribution of Shopping Malls in the FCC

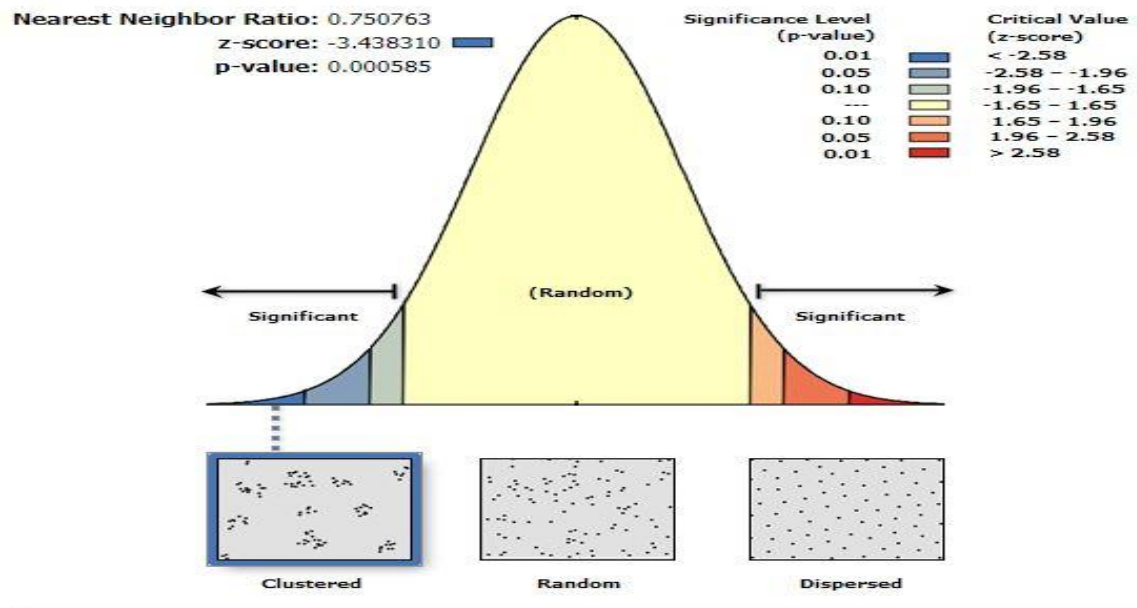
Source: Author's Field Work, 2019

From Figure 2, it can be seen that the distribution of shopping malls in the study area are not even. This spatial spread may be due to several factors. The major reason for the spread of shopping malls in the study area is to continually provide retail services to the high population of residents across districts.

Locational Pattern of Shopping Malls in the Study Area

On the other hand, Figure 3 shows the locational pattern of shopping malls in the study area, it can be clearly seen that since the index (average nearest neighbour ratio) is less than 1, the pattern exhibits clustering. Spatial Agglomeration allows mall managers capture more consumers as people often prefer to go to multiple shops, for example when trying out clothes, customers may prefer to go to concentrations of similar shops. Agglomeration may therefore

imply higher retail profits and also higher rents. Counteracting this effect, however, is the competition effect, which means that locating close to competitors leads to greater price competition and therefore lower profits and rents. This competition effect depends on the ability to differentiate one's products.



Given the z-score of -3.43831019081, there is a less than 1% likelihood that this clustered pattern could be the result of random chance.

Figure 3: Locational Pattern of Shopping Malls in the Study Area.

Source: Author's Field Work, 2019

Therefore, the distribution of the shopping malls in the study area is clustered. Another possible reason for this is the economic advantages of agglomeration of industries such as easy access to power, market, patronage, security, transportation and other social facilities. Also, malls tend to be located in areas that can guarantee a sustainable level of customers hence patronage that will induce profitability.

The result of the locational pattern of shopping malls in the study area has some similarities with the work of Olumide and Amobichukwu (2013) in Ibadan north, Oyo State where the Nearest Neighbor Analysis revealed that most shopping malls in the area are having a clustered pattern against the hypothetical believe of been evenly distributed over space.

Locational Pattern of Shopping Malls across Districts

The study further assessed the locational pattern established by different districts in the study area (Table 3). The clustered distribution of malls in Garki and central district is to increase profit margin through increased patronage. Agglomeration or clustering increases competitiveness but reduces profit through shared patronage. This result corroborates the work of Sohail (2013) where the researcher noted that clustering of malls increases competitiveness because with a growing number of mall operators, only those who differentiate their products and build a strong patronage will eventually survive in this intense competition.

Table 3: Nearest Neighbour Ratio (NNR) across Districts

Districts	Observed Distance	Mean Expected Distance	Mean NNR	Inference
Asokoro	2258.0633 Meters	839.5806 Meters	2.689513	Dispersed
Central district	372.1872 Meters	562.7965 Meters	0.661318	Clustered
Garki	922.0835 Meters	975.9719 Meters	0.944785	Clustered
Maitama	702.2997 Meters	649.9996 Meters	1.080462	Dispersed
Wuse	677.0092 Meters	610.3507 Meters	1.109213	Dispersed

Source: Author's Analysis, 2019

The dispersal of the malls in Asokoro, Maitama and Wuse District is primarily to ensure even distribution and reduce traffic congestion as a result of clustering. The random distribution of shopping malls in Asokoro district is also to reduce traffic congestion which is evident when shopping malls are clustered. An average assessment of interviewed mall managers in Asokoro District revealed that most malls in the district enjoy spatial spread to increase accessibility to the increasing number of customers. Also, the distribution of the malls reduces distance spent in accessing shopping malls. This was confirmed by the in-depth interview session with an official of the FCDA where he said:

“Shopping malls in Asokoro and Wuse have a designated area assigned for them in the Abuja master plan. This designation is to ensure spread and reduce traffic congestion”

The dispersed distribution of malls in Maitama district is as a result of the increasing need to maximize profit through effective spread of shopping malls. Most shopping malls in Maitama District are sited to serve high population density area. A mall manager confirms this assertion when he said:

“As you can see, where population is sparse, shopping malls are almost absent. Most shopping malls in this district serve certain population class”

The reason for random distribution of malls in each district is to increase profit margin, reduce competitiveness caused by agglomeration and reduce traffic congestion by ensuring spatial spread of the shopping malls. On the other hand, the clustering of the shopping malls taken as a whole irrespective of districts is due to the economic benefits of agglomeration of shopping malls such as easy access to power, market, patronage, security, transportation and other social facilities. The random distribution can also be attributed to the presence of large population, presence of market, income of resident and accessibility of the malls. This is because each mall will want to minimize cost and maximize profit. This is corroborated by the exact words of a mall manager in Garki District (G8), who stated that:

“What is the need of locating a shopping mall in a low population area? Where is the desired patronage expected to emerge from? Every business is designed for profit. A shopping mall is no exception”

Siting of malls close to established markets could also be one of the reasons why the malls are randomly distributed. The quest to reduce cost of transporting raw materials to the malls might contribute to the randomness of the locational pattern of the malls as most malls will want to be in close proximity with their supplier of raw materials. Hence, being close to such sources is beneficial to the malls and spread the malls across various source of materials.

However, this result contradicts the work of Okeahialam (2010) where the researcher noted that random or dispersed distribution of malls reduces competitiveness because with increasing distance of accessibility to a mall, there is a growing discouragement among patrons. Hence, customers will have to patronize the closest malls at prices of goods and services offered by these malls.

The three major requirements in setting up a shopping mall are; the plot must be designated for commercial activities in the Abuja master plan, the mall should be a sector centred level facility or higher order facility and the mall must be located along arterial or collector roads. These requirements are also contributing to the dispersed nature of shopping malls in FCC. This is because a lot of location in FCC meet the criteria thereby giving avenue for dispersed distribution of the malls.

CONCLUSION

Generally, the locational pattern of shopping malls across districts is random. This means that the malls are evenly distributed when assessed as individual districts. However, the entire shopping malls in the FCC taken as a whole reveals a clustered pattern which reveals an uneven distribution. The random distribution of malls in each district is to increase profit margin, reduce competitiveness caused by agglomeration and reduce traffic congestion by ensuring spatial spread of the shopping malls. Therefore, this study recommends that further allocation of land for shopping malls by the FCDA be sited away from already existing ones, especially with considerations of the distribution of shopping malls by districts.

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