

Spatial Relationships between Location of Microfinance Banks and Poverty in Nigeria

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Abstract

The policy of microfinance banking was primarily introduced by the Central Bank of Nigeria not only to bring financial institutions to the people at the grass root but also aimed at addressing the wallowing poverty among Nigerians. This study assessed the relationship existing between the location of microfinance banks and absolute poverty at two spatial scales in Nigeria i.e. geopolitical and state levels in Nigeria. Data on location of microfinance banks in Nigeria was collected from the Central Bank of Nigeria (CBN) and that of poverty from the National Bureau of Statistics (NBS). These were analysed using Geographical Information System (GIS) operations based on regions and states with the aid of ArcGIS 10 vector based software. Additionally, correlation statistics was used to relate absolute poverty at the geopolitical and state levels with number of microfinance banks located at the spatial scales. Results indicated a clustering of microfinance banks in the southwest geopolitical region such that the ratio of population to bank was least in the southwest and highest in the northeast. At the state level, Lagos, Ogun, Anambra and FCT had the heaviest concentration of microfinance banks with a ratio of 30,570 – 79,811 persons per bank while Borno, Yobe, Kano and Katsina had the least concentration with a ratio of 925,670 – 2,321,339 persons per bank. The concentration of these banks at the geopolitical and state levels showed an inverse relationship with absolute poverty situation ($r = -0.85$ at regional and $r = -0.38$ at state level) signifying strong relationship between these banks and poverty. It was recommended that communities and wealthy individuals especially in the northern states need to be targeted while ethical products as interest free deposits and loans could be floated by microfinance banks to satisfy community needs.

Keywords: Microfinance, banks, poverty, location

1.0 Introduction

Financial institutions worldwide are established to promote and enhance business operations of individuals and groups or promoting savings or even perform both roles. Microfinance is a general term to that is used to describe financial services made available to low-income individuals or to those who do not have access to typical banking services. The Central Bank of Nigeria (2005) defined microfinance banking as a development tool for the provision of financial access to the economically active poor affordably and on a sustainable basis. In another sense it refers to the thinking that low-income individuals and groups are capable of lifting themselves out of poverty if given access to financial services. Microfinance banks are typically banks that are supposed to have the greatest reach and spread in most parts of the world. This arises from their relatively small size and capital requirement for their operation which makes them easy and accessible to poor individuals. Microfinance banks may be distinguished from other banks by two main characteristics they often exhibit. Apart from their relatively small capital outlay, these banks operate within the communities they are located (Keeton, Harvey and Willis, 2009). The size of capital however is relative depending on the economic development of the country in question. For instance, there were a total of 6,900 community (microfinance) banks in the United States by the end of 2002 nearly 50 percent of whom operate with capital of less than 100 million US dollars. On the contrary, most microfinance banks in Nigeria operate within the minimum amount of 20 million Naira mandatory capital requirement set by the Central Bank of Nigeria. Generally, Africa has since the mid 1990s witnessed substantial economic growth occasioned by macroeconomic reforms leading to a more favourable investment climate. Despite this growth, however, the report reveals that the continent's private sector remains small, dominated by small enterprises that are engaged in largely informal activities, their growth hampered by limited access to formal financial services, such as deposit and credit facilities and other financial services (Office of the United Nations Adviser on Africa, 2013).

The importance of community banks in a growing economy like Nigeria cannot be overstated. There is abundant evidence to demonstrate that microfinance can lift families out of poverty and also able to contribute to the completion of six of the eight millennium development goals (Littlefield, Morduch and Hashemi, 2003). A large amount of research and practice have shown that providing access to financial services to the poor and microenterprises can help alleviate poverty. This is because most of the population is not only rural but is largely dependent on informal activities and requiring only the services of small financial institutions. This may be seen from the high number of persons participating in daily and/or monthly contributions (*adashe, esusu*) especially among traders, artisans and other small scale business operators in Nigeria. The predominance of such informal businesses makes possible for large amounts of capital (which largely would have been in the control of

microfinance banks) to be mobilized and utilised outside these formal banking institutions. Despite the seemingly large volume of capital made available by these informal business networks, not much can be raised by individuals as loan facility at a time. It was in a bid to resolve this identified deficiency of the informal microfinance sector that the Central Bank of Nigeria (CBN) in 2005 introduced a microfinance policy as a prelude to the licensing of microfinance banks in Nigeria. Therefore microfinance banks became established to make available enough capital to small scale businesses through a formal setting (Acha, 2012). According to Idolor and Imhanlahimi (2011) majority of people in developing countries have limited or no access to financial services and these are the group being targeted by microfinance banks. Thus microfinance banks formally replaced the erstwhile community banks in Nigeria in 2007 with the registration of over 900 such banks. However, one important character of these banks is their uneven distribution in Nigeria. How microfinance banks are spatially distributed across the country and what is the relationship of such a pattern on the economy of the country particularly poverty? This study reviews the location of microfinance banks in Nigeria.

1.1 The Relevance of Spatial Analysis to Micro Financing

The most important advocates of microfinance banks point to their relevance in terms of their ultimate effect of poverty reduction. The power of these banks to provide financial incentives to the poor at a minimum cost generally places them above other financial institutions. Nevertheless, there are three different aspects of poverty that have been identified by the United Nations Economic and Social Commission (2000). These are poverty of money, poverty of access and poverty of power. Of these three, poverty of access is most relevant to our understanding of micro financing in the sense that it arises from an individual or group inability to access certain basic infrastructure thus limiting their capacity to enjoy these services. In other words if few micro finance banks are sited in only a few locations to the detriment of other areas, such areas may be considered poor in terms of such provisioning. Accordingly, the Office of the United Nations Adviser on Africa (2012) identified a large number of points of sale as one opportunity to be enjoyed by microfinance banks in Africa. It is this provisioning of point of sale that is being investigated in this study with respect to Nigeria.

2.0 The Study Area and Methodology

2.1 The Study Area

The study covered entire Nigeria, located from Latitude $04^{\circ} 10' 20''\text{N}$ to $13^{\circ} 56' 06''\text{N}$ and from Longitude $02^{\circ} 40' 00''\text{E}$ to $14^{\circ} 42' 00''\text{E}$. It is bounded to the North by Niger Republic, North-East, East, South and West by Lake Chad, Cameroon Republic, Atlantic Ocean and Benin Republic respectively, Figure 2.1; and showing six (6) Geopolitical Zones.

2.2 Methodology

This study is essentially based on theoretical insights gained from literature but is largely drawn from data made available by the Central Bank of Nigeria (CBN) and geospatial database from Department of Geography, University of Maiduguri. The list of registered microfinance banks in Nigeria with their addresses according to states as at 15th July 2015 was acquired from the Bank's website and analysed on the basis of states and geopolitical regions in Nigeria. The number of people served by a microfinance bank was calculated on the basis of geopolitical regions and states were also presented. Geographical Information System (GIS) operations of microfinance banks based on regions and states were performed in ArcGIS 10 vector based software. Such operations included spatial distribution of the microfinance banks, percentage of total banks, population density, ratio of number of banks serving population and percentage absolute poor (per region and State). A correlation coefficient on the relationship between number of banks in the states and percentage of people considered absolute poor according to the National Bureau of Statistics was performed. Relevant discussions were made and conclusions were drawn from these.

2.3 Method of Spatial Data Analysis

Administrative of Nigeria (Figure 2.1) was used as a baseline data for the analysis retrieved from Geospatial database in GEONETCast Unit, Department of Geography, University of Maiduguri. The map was reprocessed to generate map of geopolitical regions from geoprocessing – merge operation of ArcGIS 10. The ArcGIS method of database creation and analysis was also used. This was performed in attribute table to create the database, using add fields and records operation (considering table 3.1 regionally and 4.1 state wise: number of banks; percentage of total banks; total population; ratio of bank to population and percent absolute poor). The generated maps were subjected to Symbology Layer Properties using two operations: Dot density and Quantities – graduated colours. For the later operation, (quantities – graduated colours), seven classification method under “natural breaks” was used to produce maps for the following: the spatial distribution of banks, percentage of total banks per state and region; total population; ratio of bank to population and percent absolute poor.

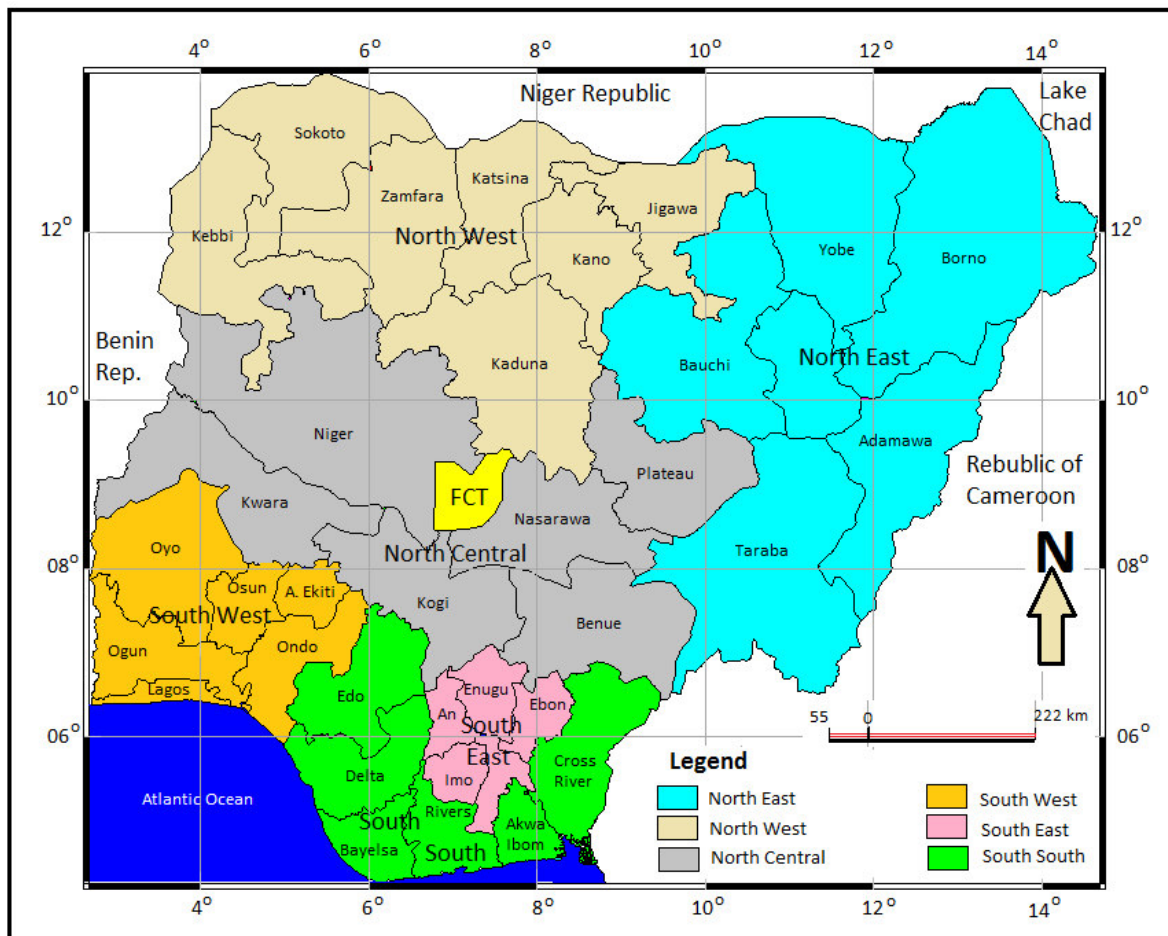


Fig. 2.1: Administrative Map of Nigeria and Six Geopolitical Zones
 Source: GEONETCast Unit, Department of Geography, University of Maiduguri, 2015

3.0 Distribution of Microfinance Banks in Nigeria

Microfinance banks in Nigeria came into existence as a result of a government policy directive from the Central Bank of Nigeria to reposition the erstwhile existing community banks. The latter were banks registered in the country by communities and groups operating with small amounts of capital most of whom were worth not more than five million Naira. Arising from the fact that there were many reported cases of liquidation and abuses of mandate by the community banks the CBN issued an ultimatum to all existing community banks wishing to continue operating to recapitalize to a minimum of N20 million by 31st December, 2007. Following this directive, all the community banks that recapitalized as required and others that met CBN’s requirements for operation thereafter were converted to microfinance banks.

Available data shows there are a total 792 microfinance banks registered with the Central Bank of Nigeria whose list were obtained (CBN, 2015). Their spatial distribution by geopolitical region and state level are shown in Figure 3.1 A and B. Analysis of their spatial distribution by geopolitical region shows that most of the banks are concentrated in the southern part of the country (Table 1 and Figure 3.1). The southwest region in particular had the highest number of banks accounting for nearly 40 percent of all the registered microfinance banks followed by southeast with 19 percent.

Table 3.1: Distribution of Microfinance Banks in Nigeria by Geopolitical Region

Region	No of Banks	Percentage of total banks	Total population	Ratio of Bank to Pop	Percent Absolute poor
Southwest	312	39.4	27,722,432	88,854	49.8
South-South	91	11.5	21,044,081	231,254	55.9
Southeast	151	19.1	16,395,555	108,580	58.7
North-central	146	18.4	20,369,956	139,520	59.5
Northwest	61	7.7	35,915,467	588,778	70.0
Northeast	31	3.9	18,984,299	612,397	69.0
Total	792	100	140,431,790	177,313	60.9

Sources: Central Bank of Nigeria, 2015; National Bureau of Statistics, 2010

Table 3.2: Distribution of Microfinance Banks by State

State	No. of Banks	Population	Percent of Banks	Ratio of Bank to Pop	Absolute Poverty (%)
Abia	17	2,845,380	2.15	167,375	57.4
Abuja	46	1,406,239	5.81	30,570	55.6
Adamawa	8	3,178,950	1.01	397,369	74.2
Akwa Ibom	11	3,902,051	1.39	354,732	53.7
Anambra	72	4,177,828	9.09	58,025	56.8
Bauchi	11	4,653,066	1.39	423,006	73.0
Bayelsa	3	1,704,515	0.38	568,172	47.0
Benue	12	4,253,641	1.52	354,470	67.1
Borno	3	4,171,104	0.38	1,390,368	55.1
Cross River	13	2,892,988	1.64	222,538	52.9
Delta	31	4,112,445	3.91	132,660	63.3
Ebonyi	8	2,176,947	1.01	272,118	73.6
Edo	18	3,233,366	2.27	179,631	65.6
Ekiti	11	2,398,957	1.39	218,087	52.4
Enugu	20	3,267,837	2.53	163,392	62.5
Gombe	4	2,365,040	0.51	591,260	74.2
Imo	34	3,927,563	4.29	115,517	50.5
Jigawa	9	4,361,002	1.14	484,556	74.1
Kaduna	25	6,113,503	3.16	244,540	61.5
Kano	8	9,401,288	1.01	1,175,161	65.6
Katsina	5	5,801,584	0.63	1,160,317	74.5
Kebbi	5	3,256,541	0.63	651,308	72.0
Kogi	21	3,314,043	2.65	157,812	67.1
Kwara	21	2,365,353	2.65	112,636	61.8
Lagos	166	9,113,605	20.96	54,901	48.6
Nassarawa	9	1,869,377	1.14	207,709	60.4
Niger	28	3,954,772	3.54	141,242	33.8
Ogun	47	3,751,140	5.93	79,811	62.3
Ondo	15	3,460,877	1.89	230,725	45.7
Oshun	30	3,416,959	3.79	113,899	37.9
Oyo	43	5,580,894	5.43	129,788	51.8
Plateau	9	3,206,531	1.14	356,281	74.1
Rivers	15	5,198,716	1.89	346,581	50.4
Sokoto	4	3,702,676	0.51	925,669	81.2
Taraba	4	2,294,800	0.51	573,700	68.9
Yobe	1	2,321,339	0.13	2,321,339	73.8
Zamfara	5	3,278,873	0.63	655,775	70.8
Nigeria	792	140,431,790	100.00	177,313	60.9

Sources: CBN (2015), National Bureau of Statistics (2010)

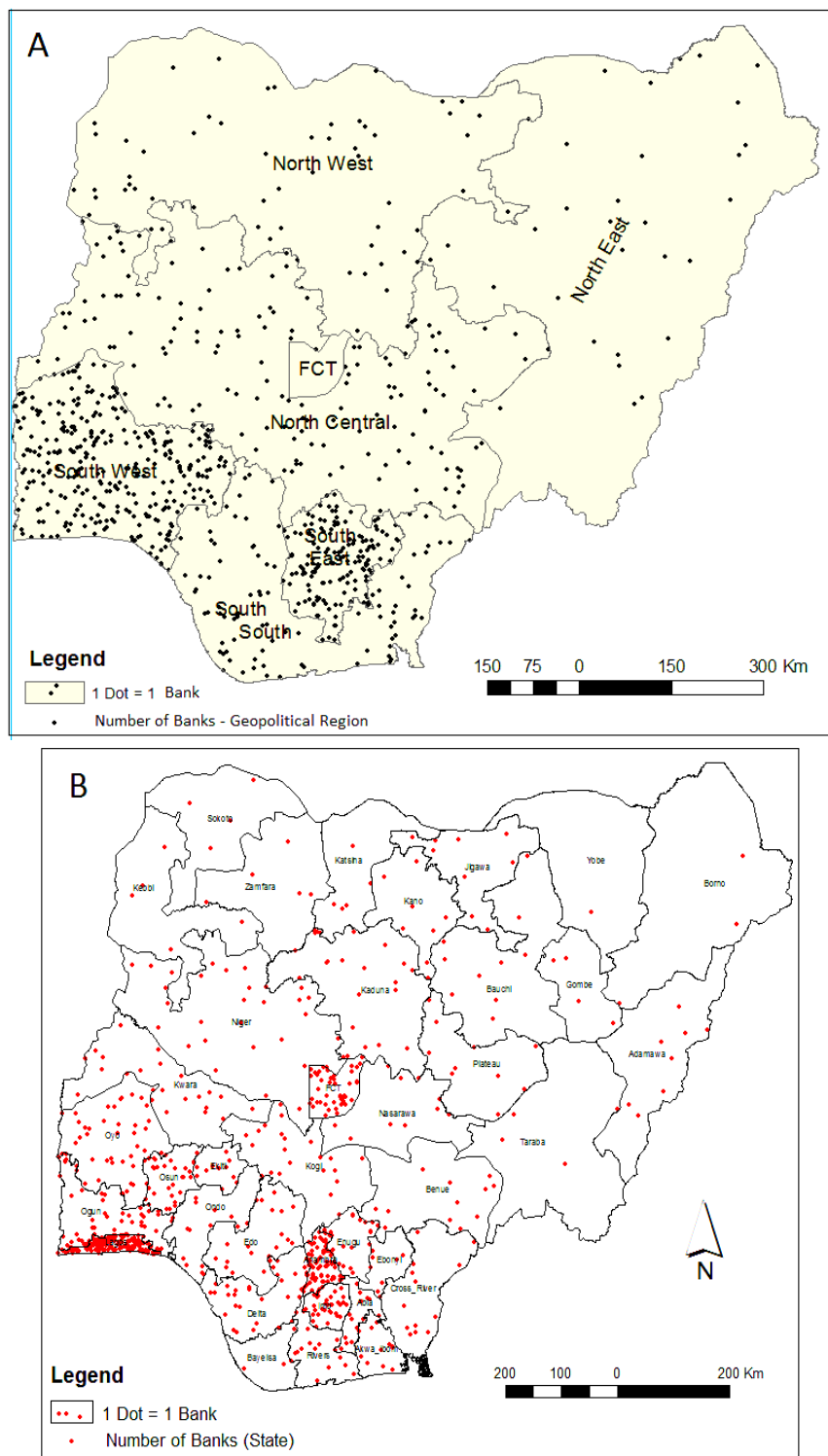


Fig. 3.1: “A” Spatial Distribution of Microfinance Banks in Geopolitical Region; “B” Spatial Distribution of Microfinance Banks in States

Source: GEONETCast Unit, Department of Geography, University of Maiduguri, 2015

The least served geopolitical zones identified were the northeast and northwest accounting for 3.9 percent and 7.7 percent respectively (figure 3.2). In fact the least served geopolitical region in southern Nigeria i.e. the south-south has about the same number of banks as the northeast and northwest put together.

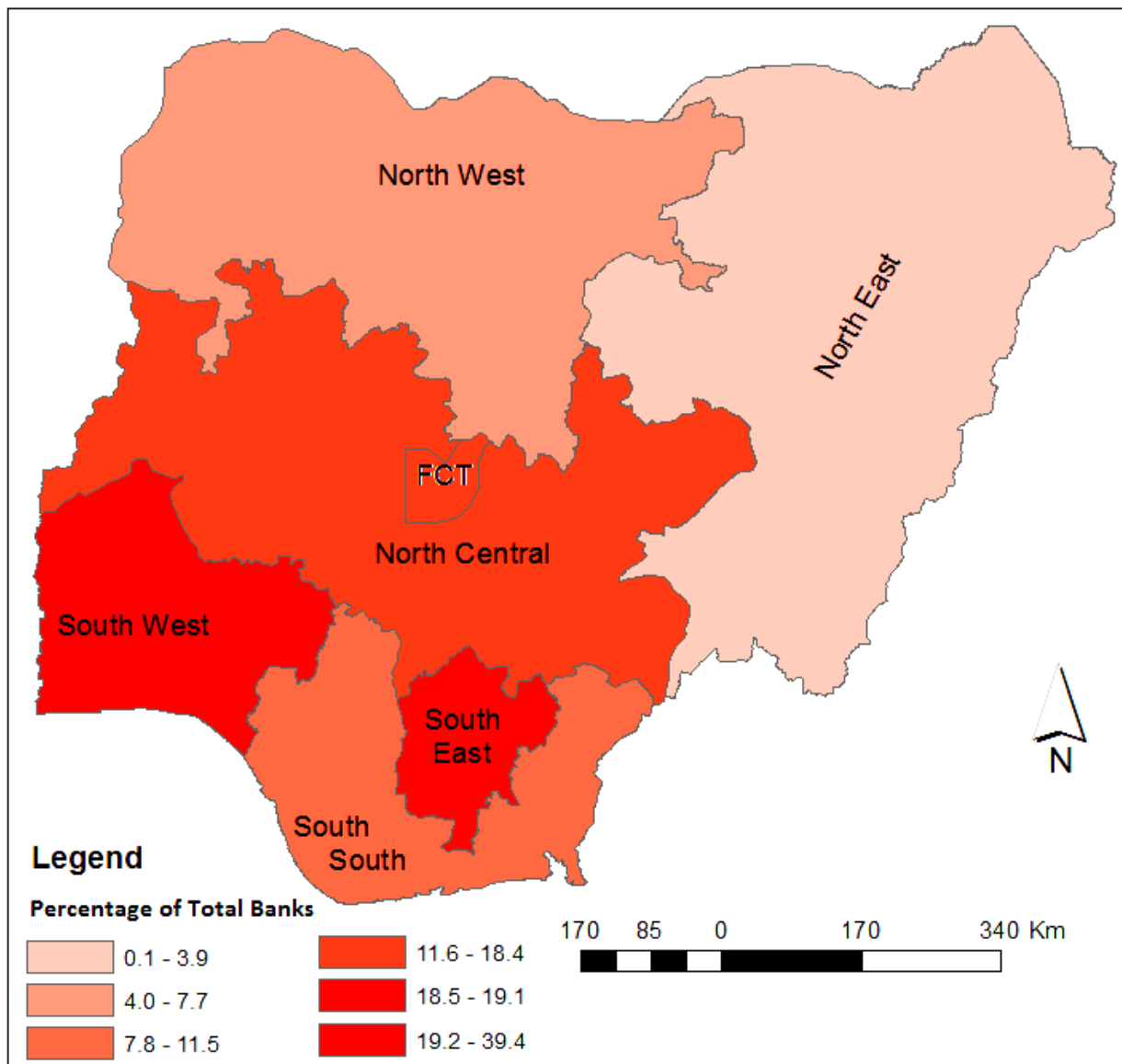


Fig. 3.2: Percentage of Total Banks by Geopolitical Regions

Source: GEONETCast Unit, Department of Geography, University of Maiduguri, 2015

When the ratio of bank to population was considered, a similar pattern was also observed with southwest and southeast geopolitical regions having the lowest populations served by microfinance banks. Highest ratios were observed in the northeast and northwest regions with one bank serving over half a million people in both cases (figure 3.3). However, three geopolitical regions i.e. the southwest, southeast and north-central have ratios below the national average while northeast, northwest and south-south all have ratios above the national average, which has been shown spatially in Figure 3.3.

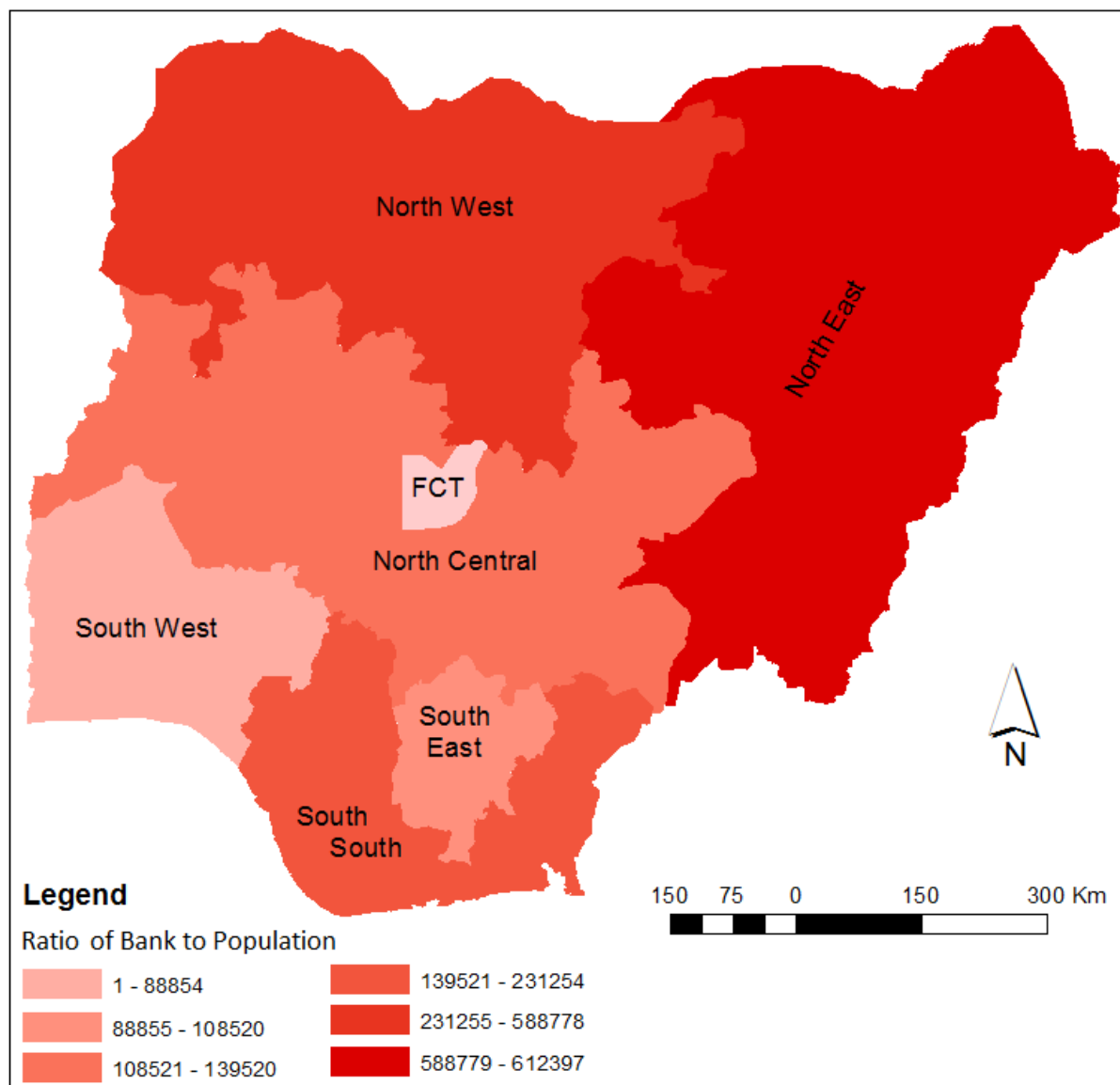


Fig. 3.3: Ratio of Banks to Population in Geopolitical Regions of Nigeria

Source: GEONETCast Unit, Department of Geography, University of Maiduguri

The ratio of bank to population in the geopolitical regions was compared with the percentage absolute poor. The higher ratios in northeast and northwest matched with higher percentage absolute poor, (figures 3.3 and 3.4). Reverse was the case in the south, where lower population to bank ratios were recorded; the higher number of banks in south west and southeast matched with relatively low percentage of absolute poor.

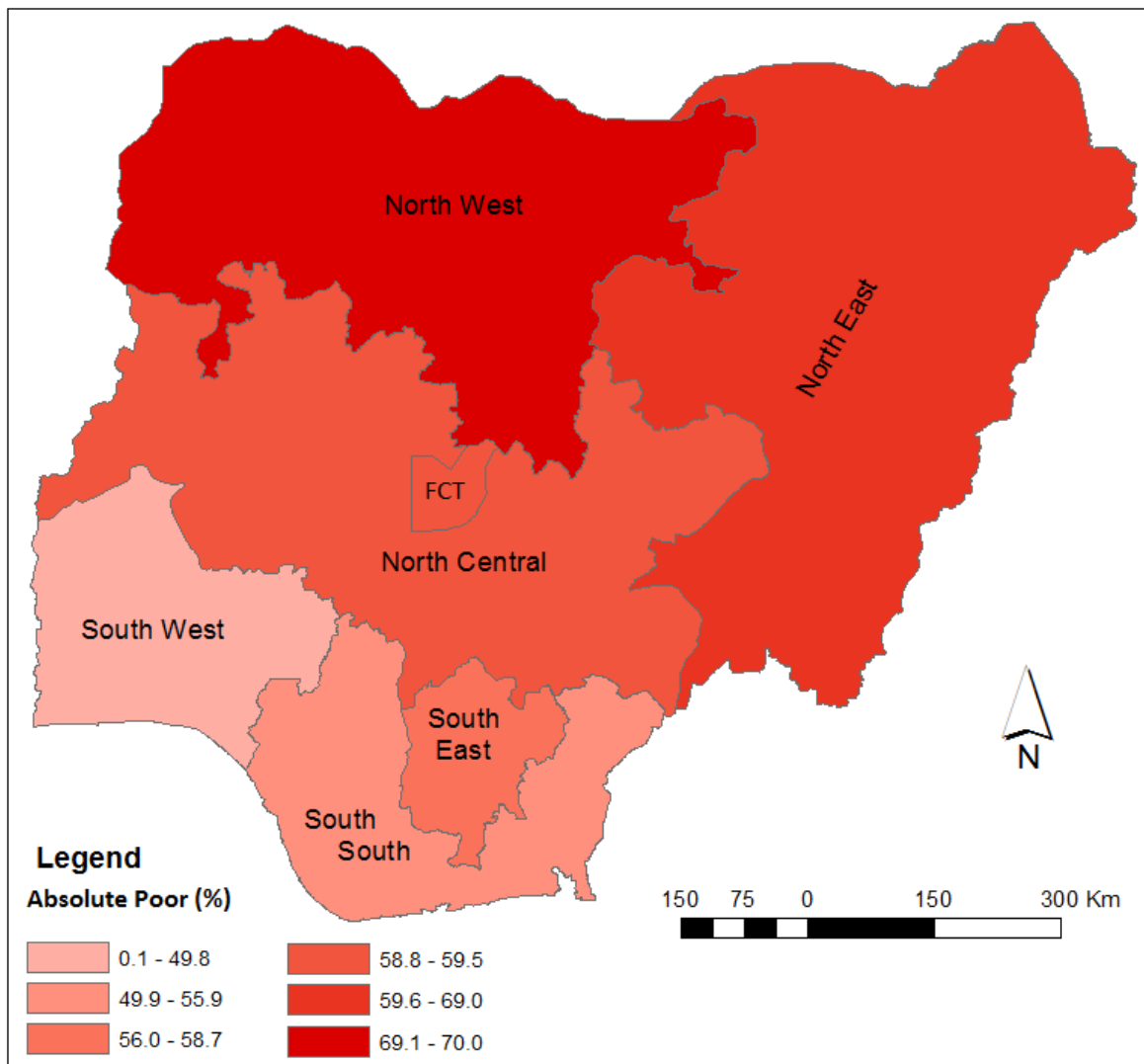


Fig. 3.4: Percentage of Absolute Poor in Geopolitical Regions of Nigeria
 Source: GEONETCast Unit, Department of Geography, University of Maiduguri

The spatial distribution of banks by state also confirms the generally poor availability of these financial institutions in the northern states when compared with the south (Table 2 and Figure 3.1 B). While there was only one registered microfinance bank in Yobe State for instance, there were 166 in Lagos State. In fact 11 out of the 19 states of the northern region or 58 percent have less than 10 banks each while three states of the south i.e. Lagos, Oyo and Ogun together constitute more than a third of all the registered microfinance banks in the country (figure 3.1 B). Percentagewise, Lagos State alone accounts for about 21 percent of all banks; Anambra and Oyo account for 9 percent and 5 percent respectively. At the other extreme, the three states of the northeast – Gombe, Borno and Yobe account for only one percent of all microfinance banks in the country (figure 3.5). Correlation statistics performed between the number of banks and absolute poverty in the regions showed a very high inverse relationship ($r = - 0.85$). When the ratio of bank to population was considered, Federal Capital Territory, Abuja appears to be the most advantaged with one microfinance bank serving a population of about 30,000, followed by Lagos and Anambra states with a ratio of about 1:55,000 and 1:58,000 respectively. Yobe State still has the highest population to bank with a ratio of 1:2,300,000 because of the availability of only one bank serving the whole state. On the whole, there are only 13 states including the Federal Capital Territory with ratios less than the national average ratio Figures 3.6. An inverse relationship was also observed between the number of banks and absolute poverty at the state level ($r = - 0.38$).

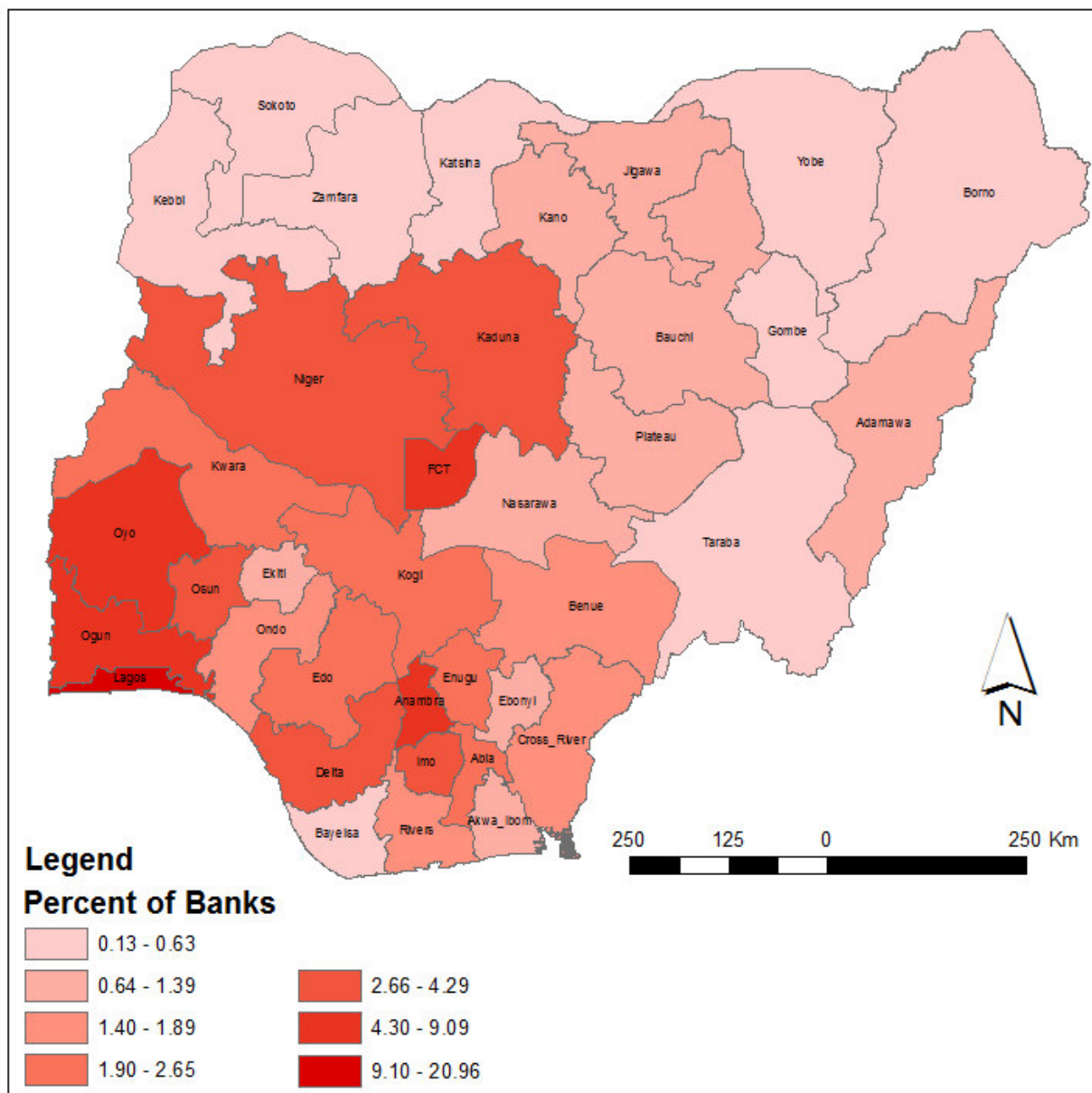


Fig. 3.5: Ratio of Bank to Population by Geopolitical Region in Nigeria
 Source: GEONETCast Unit, Department of Geography, University of Maiduguri

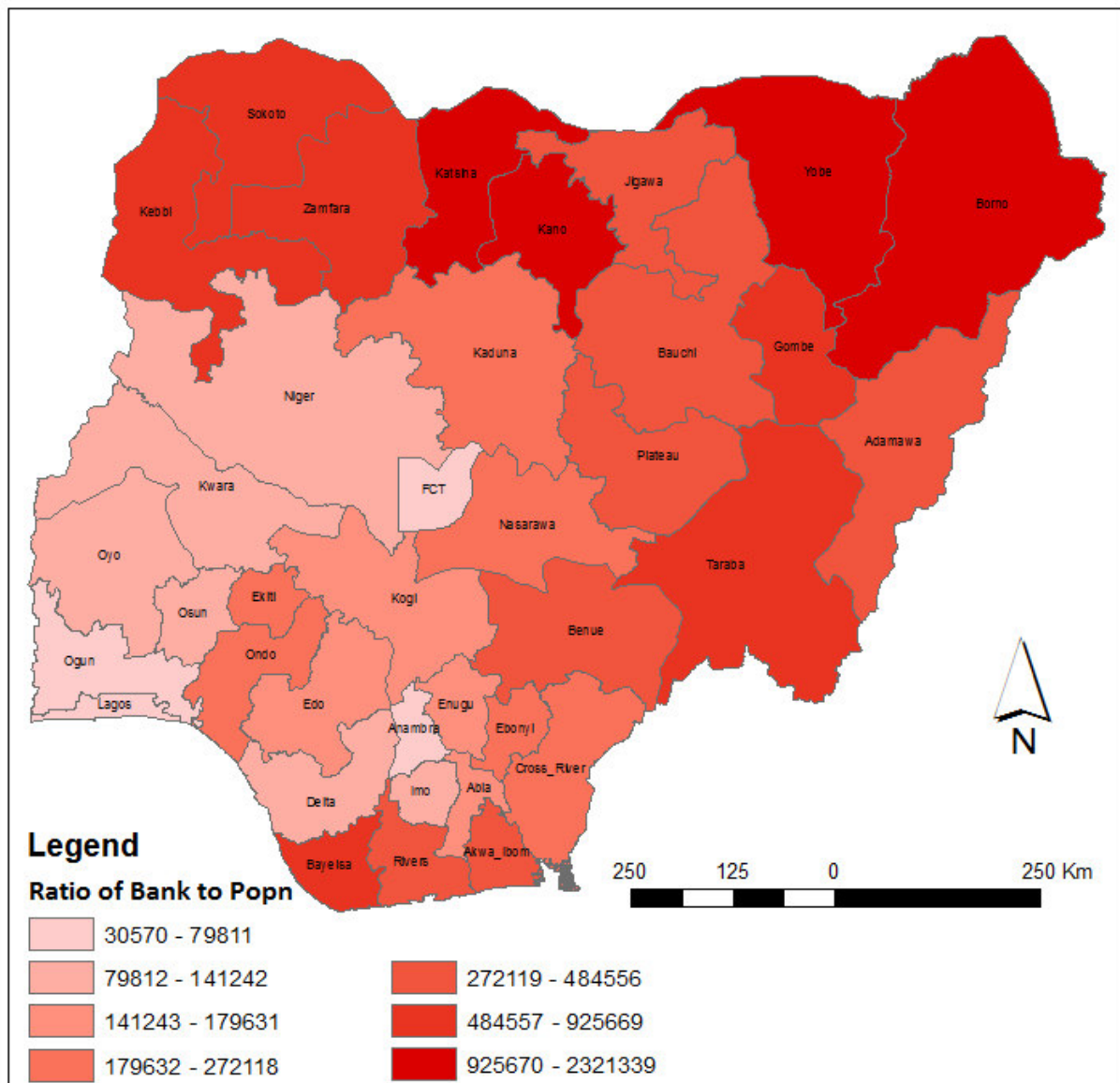


Fig. 3.6: Ratio of Bank to Population by State in Nigeria
 Source: GEONETCast Unit, Department of Geography, University of Maiduguri

4.0 Discussion

With about 70 percent of its population living in absolute poverty (National Bureau of Statistics, 2012) Nigeria is one of the countries of the world with a high percentage of poor people. If microfinance banks are geared to fight poverty by making available finances to the poor then it becomes obvious from the foregoing why most parts of the country are underserved by microfinance banks. First, large disparities exist between the northern and southern regions, the former accounting for less than a third of the registered banks. Second, within each of these two broad regions large differences could be discerned between the constituent units, i.e. the geopolitical regions. Such disparities are reported to exist in other regions. In a survey of 10 large community banks in the United States, De Young and Duffy (2002) showed that most of the branches were located in the Mid-south. A number of reasons may be adduced for the lopsided nature of microfinance banks across the Nigeria. The concentration of these banks around Lagos, Ogun, and Anambra States coincide with the status of these states as industrial and commercial areas of the country. It has been argued for instance that Lagos state alone accounts for 12 percent of Nigeria's GDP in 2013 which was estimated at \$32 billion and expected to grow by 40 percent in 2014 (Business News, 2014). On the other hand while the dearth of industries in the northern part could have weakened the establishment of these banks, the poor savings culture of the people in banks may also help explain the problem. Northern Nigeria, being a largely Muslim territory is likely to have suffered from non participation of its citizens in banking activities, including microfinance banks due to the population's abhorrence of interest as a religious duty. This was reported elsewhere by (Acha, (2012). But the poor services offered by microfinance banks in

Nigeria may be held as a plausible reason for the poor access to these banks in Nigeria. A study by Idolor and Imhanlahimi (2011) in Edo State reported 65 percent of customers reporting poor services offered to customers by microfinance banks in the state. The inverse relationship between poverty and the availability of microfinance banks in this study is significant. It is equally interesting to observe that many states with high number of banks have much lower poverty rates. This can be seen in the case of Lagos, Imo, FCT Abuja, Anambra etc with comparatively lower poverty rates. Conversely, many states with less presence of microfinance banks such as Yobe, Borno and Adamawa score high on the absolute poverty index.

5.0 Conclusion

The availability of microfinance institutions is generally seen as a necessary step and indeed a *sine qua non* to poverty reduction. However, while there are generally fewer numbers of microfinance banks in Nigeria, given the very high ratios of population to banks the existing pattern of their spread is geographically uneven and therefore economically counterproductive. The high percentage of people that are considered absolutely poor in most parts of the nation coinciding with the availability of microfinance banks further demonstrates the importance of these banks to the economy. Concerted efforts are required to help create awareness among communities especially in the northern states for the establishment microfinance banks. Commercial centres, wealthy individuals and communities need to be specifically targeted for this. Additionally, ethical products like interest free deposits and loans could be floated by microfinance banks to woo depositors while strict supervision by the apex bank is required to create public confidence.

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