The spatial pattern of voter choice homogeneity in the Nigerian presidential elections of the fourth republic

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Abstract. The return of democratic rule in 1999 after many years of military intervention has left some electoral geographic imprints on Nigeria: voting pattern has varied over this period. This paper analyses the pattern of voter choice homogeneity (VCH) and tests the effect of religion on VCH in the presidential elections of the fourth Nigerian republic from 1999 to 2015. The study found that some economic indicators have a positive and significant effect on VCH from the 2003 election but were all insignificant and with a negative impact in the 2015 election. The influence of religion on VCH was negative in the 1999 election but remained positive in subsequent elections and had an increasingly upward trajectory signifying the snowballing importance of faith in citizens' political choices at the presidential polls. The analysis shows that the pattern of VCH in 1999 was random, but clustered from 2003 to 2015, although the 2011 geographical clustering of VCH was dissected and the 2015 pattern was regionalised. Thus, the article argues that voting patterns structured Nigeria's political landscape from a random to clustered but dissected electoral landscapes to a clustered but regionalised milieu of a nation of two voting worlds. The pattern of a nation of two voting blocs was witnessed in the 2015 election, in which the VCH sharply depicts the religious cleavage of the country and to some degree also depicts ethnic fault-lines.

Contents:

1. Introduction

The return of democratic rule in 1999 after many years of military intervention has meant that electoral processes and outcomes have been essential subjects of scholarly inquiry. Research on Nigerian elections have often focused on the electoral process (Omotola, 2007; Omodia, 2009; Adeoti, Olaniyan, 2014), electoral malpractices such as vote buying, violence and rigging (Bratton, 2008; Collier, Vicente, 2014; Onopajo et al., 2015; Nwankwo, 2018), the history of electoral politics in Nigeria (Agbaje Adejumobi, 2006), electoral violence (Collier, Vicente, 2014; Angerbrandt, 2018), electoral participation and voter turnout (Omotola, Aiyedogbon, 2012; Nwankwo, Okafor, Asuoha, 2017; Nwankwo, Okafor, 2017), and voter apathy (Agu et al., 2013; Falade, 2014; Taiwo, Ahmed, 2015). The analysis of factors influencing voter choices has, however, received relatively little attention. The study of voter choice is crucial because it offers one of the amplest sources of knowledge about the relations between people, society and politics. Studying the patterns of voting provides an understanding of the nature of the political landscape and how political and social changes occur (Heywood, 2007).

Studies on voting pattern in Nigeria have often been fixated on which party electorates voted for or prefer (e.g., Ihonvbere, 1999; Araba, Braimah, 2015; Olasile, Adebayo, 2016; Lawal, 2017). While this approach reveals where parties won elections, equally important is how homogeneous voters' choices are in different places. Here, homogeneity refers to similarity of voter choice in different places. In a geographical sense, the analysis of homogeneity of voters' choices helps to unmask the salient patterns of the voting in different localities, places and regions. When spatial patterns of voting are only analysed based on which party won the election in different places (e.g., Lawal, 2017), it obscures the marginality of voters' preferences and by so doing could eliminate the spatial perspectives of electoral competitiveness and policies, which could be of benefit to society in general. For example, if party X, wins an election in city A by 55% of total votes cast and in city B by 90%, it implies that 45% and 10% of the voters do not like the policies and ideas of that party in cities A and B respectively.

Thus, if policies are to benefit the generality of the people in A and B cities, a homogeneity of voter choice would reveal the actual preference for a party's policies or ideas. In this regard, homogeneity would be (55-45=10%) for city A and (90-10=80%) for city B. From this simple arithmetic, some critical points can be made. First, it is evident that party X has more acceptability in city B than city A despite winning in both cities. However, the election tends to be more competitive in city A than city B, meaning that party X would have to deploy policies that in some ways would reflect the desires of the 45% who do not like its plans and ideas during campaigns, perhaps to be able to win convincingly in the next election or to dominate the city. Also, the variation in the voters' choice of party X in the two cities can offer some clues as to the underlying factors that shape voting behaviour in different places. Consequently, the homogeneity of voters' choices unmasks salient geographies of voting behaviours that are not readily visualised when voting patterns are mapped based only on what party electorates prefer most in different locations.

Spatial analysis of the homogeneity of voter choice is imperative in religiously and ethnically heterogeneous states such as Nigeria because of the geographical aspects of the influence of these cultural factors on voters' choices. Public discourse, media discourse and some studies in Nigeria have argued that religion and ethnicity shape voters' choices in Nigeria and, as such, it would be expect-

ed that voting pattern would manifest in cleavages since the Nigerian population is ethnically and religiously heterogeneous but geographically homogeneous. The electoral cleavage theory argues that when there are hegemonically organised and continued lines of significant ideological and social division in places such that people of similar ideological and social elements cluster, voting patterns will manifest in cleavages showing the division in society (West II, 2005). Spatial analysis of the influence of these cultural factors on political decisions at the presidential polls in Nigeria has received little attention, and an examination of how VCH shapes up with the main cleavages has not been explored. Spatial analysis of homogeneity of votes helps reveal the levels and spatiality of partisanship. The spatial perspective is valuable because it helps us better appreciate the role of place in voting (Pattie, Johnston, 2014). The fundamentals of spatial framework conceive human behaviour as being geographically constructed or place-based (Cho, Rudolph, 2008). By implication, the voting decision of individuals in any given "place" mirrors that of their neighbours such that voting pattern in proximal places tends to be more homogeneous than across distances (Shin, Agnew, 2007). Despite the efforts to characterise the voting pattern in Nigeria (Ihonvbere, 1999; Olasile, Adebayo, 2016); Araba, Braimah, 2015; Lawal, 2017), the spatial pattern of voting that takes on a comparative perspective of all the elections in the fourth republic (1999 to date) has not been investigated.

Thus, this study aims to analyse the pattern of voting and the effect of sociocultural factors in the Nigerian presidential elections from 1999 to 2015. Specifically, the study statistically investigates the pattern of VCH, tests the impact of religion on VCH in the presidential elections of Nigeria and examines whether VHC reflects the core cleavages in Nigeria. Although religion and ethnicity have been identified as core determinants of voters' choice in Nigeria, testing for the impact of ethnicity is constrained by the unavailability of data on the population of ethnic groups in each sub-national unit. In examining the influence of religion, the study controls for socio-economic variables because it has been argued that African voters, and indeed Nigerians also, look at a government's policy performance regarding inflation, income distribution and unemployment (Bratton, Bhavnani, Chen, 2012; Araba, Braimah, 2015). The socio-economic variables considered in the study are unemployment, adult literacy and absolute poverty. These variables are the best expression of the socio-economic condition for which data can be accessed from the Nigerian Abstract of Statistics.

Based on the analysis, this paper demonstrates that some economic indicators have a positive and significant effect on VCH from the 2003 election but were all insignificant and with negative impact in the 2015 election. The influence of religion on VCH was negative in the 1999 election but remained positive in subsequent elections and had an increasingly upward trajectory, signifying the snowballing importance of faith in citizens' political choices at the presidential polls. The study found that the pattern of VCH in 1999 was random but clustered from 2003 to 2015, although the 2011 geographical clustering of VCH was dissected, and the 2015 clustering was regionalised. Thus, the article argues that voting pattern structured Nigeria's political landscape from a random electoral landscape, to a clustered-but-dissected electoral landscape, to the clustered-but-regionalised milieu of a nation of two voting worlds. The pattern of a nation of two voting blocs was witnessed in the 2015 election, in which the VCH sharply depicts the religious cleavage of the country and to some degree also depicts the ethnic fault-lines. The paper follows this structure: the next section reviews the literature, after which, the methodology will be discussed. The next section presents the results. The last part gives the discussion and conclusion of the findings.

2. Empirical and Theoretical Literature

Voting patterns have been linked to group membership characteristics, a sort of cultural alignment that propels voters to align their vote choice to that of the social group to which they are members (Horowitz, 1985; Heywood, 2007). The affinity can regard ethnicity, religion or regions, which reflects the many tensions and divisions within society (Heywood, 2007). Voters support co-ethnic or co-religious candidates or parties as a fundamentally expressive act such that voter choice is not based

on a rational calculation of alternatives but is an expression of support for the representatives of one's cultural group (Horowitz, 1985). Earlier African political literature demonstrates a broad connection between voter choice and ethnicities (Melson, 1971; Horowitz, 1985) and new studies have tagged this perspective on voting as an instrumental action – part of a broader category of explanation for voting in which politicians mobilise voters based on ethnic cleavages to attain control over state resources and, in return for their support, voters seek provision of the resources and other benefits (Chandra, 2004; Posner 2005). Electoral geography research shows that voting patterns of electorates can mirror the major fault-lines: religion, ethnicity and regionality in a state (Birch, 2000; West II, 2005; Agnew, 2014).

Thus, among the fault-lines in a country, economics, ethnicity, religion and regional identity are critical to explanations of voting patterns. In the African context, more emphasis has been paid to the role of ethnicity in shaping voting patterns (e.g., Peele and Morse, 1974; Ishiyama, 2012), while only a few studies have highlighted the role of religion on voting (e.g., Takyi, Opoku-Agyeman, Kutin-Mensah, 2010) and the geography of religious voting has not received attention. Takyi et al. (2010) demonstrate that Ghanaian Muslims support the National Democratic Congress (NDC) while Christians, especially Protestant groups, preferred the New Patriotic Party (NPP). Ghana and Nigeria share religious similarities: both have a mix of Christians, Muslims and Traditionalists, but more importantly, the findings of Takyi et al. (2010) inform us that perhaps in a country of Muslims and Christians, the vote choice of people professing different faiths may differ significantly. Ichino and Nathan (2013) note that the theory of instrumental voting has been used to characterise ethnic voting patterns in various studies in Africa. The argument, however, relates more broadly to the sociological model or what others call structural theories of voting, which emphasise that voters tend to support candidates and parties that are of their sociocultural background (Heywood, 2007).

In this sense, voters tend to support co-ethnic or co-religious politicians and parties because they assume politicians will help their co-ethnics once in office (Posner, 2005) and, because sociocultural groups can be regionally concentrated, similar

voter choices tend to be geographically clustered (O'Loughlin, Flint, Shin, 1994; Bogaards, 2001; West II, 2005; Agnew, 2014). Ichino and Nathan (2013) show that at the polling unit level, similar voters are less probable to vote for the party of their sociocultural group, and likelier to back a party linked with another group when the local sociocultural geography favours the other group. However, Ngau and Mbathi (2007) contend that while the geography of voting can be easily discerned at the local level and may show no effect of sociocultural factors on voter choice, it is at the larger scale (sub-national or national level) that the voting results become essential, determining, for example, who occupies a constituency seat or who becomes the president. At the higher level, the influence of sociocultural factors becomes more evident.

Scholars have consistently argued that Nigerian national politics manifest along the paths of sociocultural fault-lines of the country: regional, ethnic and religious identity (e.g., Joseph, 2014; Adegbami, Uche, 2015) in the form of instrumental voting. Ihonvbere (1999) analysed the Nigerian presidential 1999 election and argued that ethnicity, regionalism, elitism and economic issues shaped voting patterns. Araba and Braimah (2015) compared the 2011 and 2015 presidential elections, demonstrating that voting behaviour in the 2015 election was shaped by issues that border on the economy, foreign policy and security. Comparing the same polls, Lawal (2017) found that regional identity influenced voting pattern in the 2015 election. Other studies focused on the 2015 election and argue that socio-cultural factors: ethno-religious and ethnic-regional sentiments shaped voting behaviour in the poll (Olayode, 2015; Olasile, Adebayo, 2016). Olasile and Adebayo (2016) find that 86.4% of the respondents of Hausa ethnic identity and 72% of the respondents of Igbo background agreed that some variables such as ethnicity and religion were strong factors that influenced their voting behaviour in the election. Despite these studies that have characterised the voting pattern in Nigeria the spatial pattern of voting that takes on a comparative perspective of all the polls in the fourth republic (1999 to present) has not been investigated.

Also, apart from Lawal (2017), these previous studies did not use spatial statistics to investigate the voting patterns; thus they lack a geographical

perspective. Nevertheless, the work of Lawal (2017) did not cover all the elections, and focuses only on the 2011 and 2015 elections. Thus, this study will analyse the pattern of voting and the influence of sociocultural factors in the Nigerian presidential elections from 1999 to 2015. The study will use spatial statistics to explore the pattern of VCH and tests the impact of religion on VCH in the presidential elections of Nigeria. It will also examine whether the pattern of VCH reflects the core cleavages in Nigeria. While it is worthwhile to examine the influence of ethnicity on the VCH, the analysis is, however, constrained by unavailability of data on the population of ethnic groups in each sub-national unit of Nigeria. Nonetheless, the impact of socioeconomic factors is tested, because voters also consider government's policy performance regarding inflation, income distribution and unemployment (Bratton et al., 2012; Araba, Braimah, 2015). Based on the availability of data from the Nigerian Abstract of Statistics, the rate of unemployment, absolute poverty and adult literacy are the socio-economic variables considered in the study.

These variables capture the essential characteristics of voters (economic status, income, education, ethnicity, religion and occupation) that are examined in connection to their voting behaviour and they are invariably used in many electoral models in political science and political sociology to explain "what a person is" electorally. Electoral geography, however, adds to this perspective the connection between "where a person lives" and their electoral choice (West II, 2005). Thus, as Agnew (1996) argues, an electoral geography perspective of voting accounts for the role of place or the variances in voting behaviour across different places and locations – what is termed the "hierarchical-geographical context". Some political scientists have challenged the importance of the geographical contexts in understanding voting behaviours, arguing that they are merely the summary of compositional elements such as socio-economic status, religion, ethnicity and class and as such add nothing meaningful to the overall analysis of voting patterns (e.g., King, 1996).

Although geographers confirm the influence of cultural, social and economic experience of voters on their political preferences, they vigorously contest the assumption that a linear addition of these as independent variables can alone explain variances in political behaviours (O'Loughlin et al., 1994). Electoral geographers point out that the association between the compositional variables and electoral results is not linear, and it is the analysis of how the variables converge in varied ways in diverse places with diverse past histories that is vital in scrutinising the patterns of political choice that influence the composition of local, regional, and national cleavages (Agnew, 1996). Thus, electoral geographers argue that elections collectivise localities and produce space in specific ways, significantly shaping what locational characteristics get represented at higher scales and how these characteristics are incorporated in territorial governments' processes of decision-making (West II, 2005: 501; Agnew, 2014; Shelley, Johnston, Taylor, 2015).

The study of political cleavages has been a critical approach to determine which of these locational characteristics and their related issues, partialities, and identities get scaled up in national elections (West II, 2005; Shelley et al., 2015). The political cleavage is a political sociologists' idea defined as strongly organised and continued lines of significant ideological and social divisions among politically influential actors (Whitefield, 2002, cited in West II, 2005). In line with these ideas, geographers argue that these cleavages manifest in political actions entrenched in the localities or geographical contexts where individuals dwell (Agnew, 2002). Cleavage theory as the traditional electoral theory in geography provides a systematic approach for analysing enduring divisions within the politics of a territorial state or region, and in contrast to similar divisions in other areas, places or regions through time (Agnew, 1996; 2014). It has been acknowledged that more indirectly than directly, different historical and geographical experiences create different cleavages (Rodden, 2010; Johnston, 2015). Geographers study the fault-lines in voting patterns covering extensive areas as being influenced by the divisions among the population of the regions. Thus, electoral geographers add to the cleavage theoretical framework by showing the types of national coalitions and networks of power that are connected and central to these divisions (Zarycki, 2000; Johnston, 2015).

The basis of geographers' analysis of electoral cleavages has been the model developed by Lipset

and Rokkan (1967) which argues that there exist age-long divisions between assemblies of voters, with political parties mobilised on either side of the cleavage. This theory proposes that it was shared experiences in the political histories of the Western European countries upon which the thesis is developed that structured the political system into four types of cleavages: between the centre and the periphery; between church (or various religious interests) and state; between agricultural and industrial interests; and between capital and labour (West II, 2005; Shelley et al., 2015). These cleavages were found to have been chronologically enmeshed and congealed into the party system as states advance and the different pace, phases, and context of this process in each country accounts for the variances that could be noticed across their party systems (West II, 2005). In general, the centre–periphery and religious-based cleavages predated the Industrial Revolution, while the latter divisions developed after conversion to an industrial economy (Shelley et al., 2015).

Even though scholars such as Ron Johnston have challenged these traditional cleavages identified by Lipset and Rokkan for the reason that the phenomenon of dealignment diminishes the loyalties between parties and voters (Johnston, 1987; Johnston, 2015), the ideas remain relevant in African democracies. Johnston argues that dealignment appears to question the permanence of the cleavages, pointing out that while divisions tend generally to configure political conflict, divisions that are too inflexible disturb the prospect of a minority victory producing long-run volatility in the political system in Britain. Thus, there are possible changes in alignment patterns because political parties tend to manipulate cleavages for the electoral advantage not only in Britain but in other places such as in New Zealand's 1987 general election (Shelley, 2015).

While the models of Lipset and Rokkan are critical to electoral cleavage analysis, the essential cleavages in Sub-Saharan African democracies are those of ethnicity and, in some countries such as Nigeria and Ghana, religion. Thus, we have the conflict between Hausa-Fulani and Igbo or Yoruba ethnic groups and between Muslims and Christians in Nigeria, for example. Many studies have found the manifestation of ethnic cleavages in many African democracies (Horrowitz, 1985; Bogaards, 2003;

Norris, Mattes, 2003; Mozaffar, Scarritt, Galaich, 2003; Posner, 2005) and have argued that ethnicity remains an essential factor of electoral outcome, albeit not the only cost-effective strategic resource for mobilising collective political action (Scarritt, Mozaffar, 1999). Ethno-political cleavages also shape the influence of electoral institutions on the structure of party systems, with important implications for the stability of African democracies in which parties are weak, with multi-ethnic coalitions (Mozaffar et al., 2003). Nonetheless, the influence of ethnicity varies across countries, but most active in ethno-linguistic heterogeneous states such as Nigeria where ethno-religious cleavages are believed to be significant, especially between the Christian south and Muslim north (Norris, Mattes, 2003).

The overlap of communal identities and administrative boundaries in Nigeria have produced major cleavages that can have significant bearing on political and electoral outcomes in Nigeria: the divisions between the three majority ethnic groups, i.e., Hausa-Fulani, Igbo and Yoruba and other minority ethnic groups; between the northern and southern regions; between the six geopolitical zones – three in the north and three in the south; and between Christians and Muslims (Mustapha, 2009). Some of these cleavages intersect, e.g., the Igbo ethnicity and Christianity overlap the south-east zone, while the north-west zone coincides with Hausa-Fulani ethnicity and the Islamic faith (Ugoh, Ukpere, 2012). The south-west overlaps Yoruba ethnicity but has a mix of Muslims and Christian adherents. The Middle-Belt or north-central zone has a combination of many minority ethnic groups of both Christian and Muslim faiths. The south-south has many minority ethnic groups who are predominantly Christians. Thus, in summary, three core cleavages shape political outcomes in Nigeria: ethnicity, religion and region. These three cleavages overlap with geography, history, religious affiliation and cultural orientation (Ugoh, Ukpere, 2012). This paper draws on the ideas of electoral cleavages to examine whether the VCH in the Nigerian presidential election of the fourth republic significantly reflect these major cleavages in Nigeria, but focuses more on the religious divisions in the country.

3. Methodology

3.1. Data

The data consist of votes received by political parties in the presidential elections of 1999, 2003, 2011 and 2015. Data on the 2007 election is mostly unavailable at the state level which makes the spatial pattern of voters' choice difficult to discern, and the 2007 election was widely replete with irregularities, hence its omission (see, e.g. Adebayo, Omotola, 2007; Rawlence, Albin-Lackey, 2007). The data were compiled from official results released by the Nigerian Independent National Electoral Commission (INEC) – the electoral umpire (http://www.inecnigeria.org). Also, these data can be accessed from the Electoral Geography 2.0 website (available at https://www.electoralgeography.com/new/en/countries/n/nigeria). The magnitude of the difference between winner parties' votes and other parties' votes in each state is an expression of the level of similarity in voters' choice in the state, as depicted in Table 1. In this way, the VCH in each of the 36 states of the federation and the Federal Capital Territory (FCT) (see Fig. 1) in each election year was calculated. If the difference is high, then the voters in that state tend to vote for a single party (i.e. homogeneous); if it is low, then voters in that state have dissimilar (heterogeneous) choices, i.e. they voted for differ-
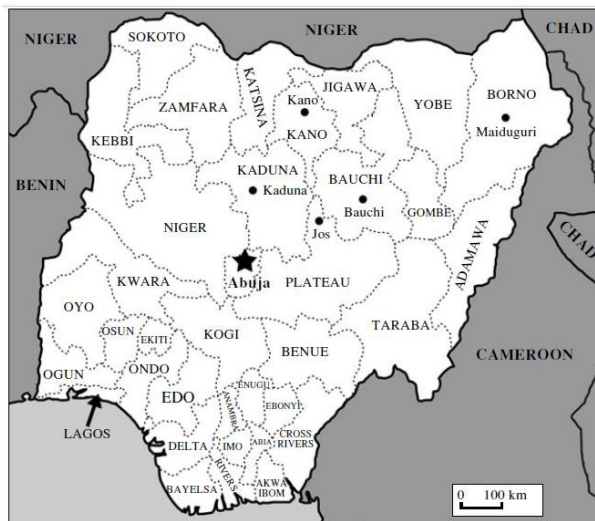
ent parties. Voters' political choices tend to be homogeneous with higher values; a low value indicates heterogeneity in voters' choices. This value does not tell which political party voters prefer, but is an indication of heterogeneity (or otherwise) in voters' choices. Data on socio-economic variables were obtained from the Annual Abstract of Statistics (National Bureau of Statistics NBS, 2008; 2012; 2016). Up-to-date data on Nigeria's religious characteristics is not available, hence, the study uses Afrobarometer survey data.

3.2. Data Analysis

The analysis of the spatial pattern of VCH was done using *Moran's Index* (1945; 1950). The statistics were used to measure the degree of spatial autocorrelation of the data. Moran's Index statistics is one of the classic techniques (and one of the most common) for determining the level of spatial autocorrelation in area data (Diniz-filho, Bini,, Hawkinst, 2003; Rogerson, 2006; Getis, 2007; Shin, Agnew, 2007; Taiwo, Ahmed, 2015). According to Shin and Agnew (2007), it is expressed as:

$$I = \frac{n\sum_{i}^{n}\sum_{j}^{n} w_{ij(x_i-\bar{x})}(x_j-\bar{x})}{\left(\sum_{i}^{n}\sum_{j}^{n} w_{ij}\right)\sum_{i}^{m}(x_i-\bar{x})^2}$$

Where n is the numbers of observation, x is the variable of interest, is the mean of the variable of interest, is the value of that variable at a neighbouring location, is the measure of the spatial proximity between states i and j, is defined as the binary connectivity requiring states to share a common boundary of nonzero length termed as "rook's case contiguity". =1 if states i and j are contiguous and = 0 if otherwise (Rogerson, 2006).

Moran's *I* is a numeric index that portrays the character of the correlation between observation and its neighbours (Shin, Agnew, 2007). A spatially lagged variable, i.e. the weighted mean of values that enclose any given observation, was calculated to juxtapose the value of each state to its neighbours (Shin, Agnew, 2007). Spatially lagged variables are employed as statistical indicators of spatial association. It provides an easy technique to capture and to summarise spatial relationships in quantitative data

Fig. 1. Nigeria, showing 36 states and the FCT

(Kinsella, Mctague,, Raleigh, 2015; Shin, Agnew, 2007). The equation for the spatially lagged variable is denoted by:

$$\sum_j w_{ij}\left(x_j - \bar{x}\right)$$

A positive Moran's index that is statistically significant shows the presence of spatial dependence, and a significant negative index suggests a pattern of variation. To evaluate the significance of Moran's I, the standard deviate, or z-score of the index is employed based on the hypothesis of random distribution of values of x (Shin, Agnew, 2007). The value of I is significant when a Z-statistics created with the mean and variance of I approaches a normal distribution (Rogerson, 2006).

Moran's I index is much interpreted as the correlation coefficient because it parallels the scale (-1, 1). However, values outside of this range, especially greater than 1, are possible (Kinsella et al., 2015). Values closer to -1 will usually show negative spatial autocorrelation (except for small n), while values closer to 1 indicate positive spatial autocorrelation (Wong, Lee, 2005). The Moran's I statistic tests a null hypothesis of spatial randomness (Rogerson, 2006). A common assumption is that a Moran's I of zero suggests the absence of spatial autocorrelation; however, the value for no spatial autocorrelation is not zero but is instead given by the expected value E[I] of Moran's I, which is contingent upon n observations (Kinsella et al., 2015):

$$E[I] = \frac{-1}{n-1}$$

If Moran's I value is close to zero, or in instances where the value of the Moran's I statistic approximates its expected value, then it indicates the absence of a spatial pattern, i.e. a random pattern (Rogerson, 2006; Wong, Lee, 2005). If a Moran's I index is greater than its expected value, it indicates that there is a clustered pattern (positive spatial autocorrelation), which implies that neighbouring states have similar voter choice heterogeneity. On the other hand, when the Moran's I index is less than its expected value then a dispersed pattern is observed (negative spatial autocorrelation) – that is, neighbouring states have differing voter choice heterogeneity (Rogerson, 2006). The level of

VCH was set into four classes, *viz.*: less than 30% = very low, 30–50% = low, 50–60% = high, and over 60% = very high.

The local Moran's I, a local indicator of spatial association (LISA) index (Kinsella et al., 2015) aided the identification and mapping of significant values (i.e., p<0.05) "… of positive spatial dependence (i.e., high values surrounded by similarly high values, or low values surrounded by similarly low values), or spatial outliers (i.e., high values surrounded by low values, or low values surrounded by high values)…" (Shin, Agnew, 2007: 294). The equation for the local Moran's I index is given as:

$$I_i = \frac{z_i}{\sum z_i^2} \sum_j w_{ij} z_j$$

Where z is measured in deviations from the mean and inference is based upon a conditional randomisation method. The Arc GIS program was used to digitise the map and to associate all the 36 states of Nigeria and the Federal capital territory (FCT) with their VCH values for the elections under consideration. All the analysis was done using the Geoda spatial analysis software (Geoda, 2005; Anselin, Syabri, Kho, 2006).

Religious diversity is generally measured as the probability that two randomly chosen individuals are not of the same religion. Thus, a Herfindahl-type fractionalisation index, $HI = \Sigma x_i^2$, was used to measure it (see Yamamura, 2011). It is expected that the higher the religious diversity index, the less religiously heterogeneous a state is, i.e., the more religiously homogeneous the state and the more similar the voter choice in that state and *vice versa*. Multivariate regression analysis was done with the VCH as the dependent variable and the religious homogeneity and socio-economic variables as independent variables, but the socio-economic variables were controlled to determine the full effect of religion on VCH. The socio-economic variables considered in the study are unemployment, adult literacy and absolute poverty.

4. Spatial Pattern of Voter Choice Homogeneity

4.1. The 1999 Presidential Election

There were two major contenders for the 1999 presidential election, The People's Democratic Party (PDP) and a coalition of the Alliance for Democracy (AD) and the All People's Party (APP) (Kura, 2008). The PDP had a former military Head of State, General Olusegun Obasanjo, as its candidate. The PDP, however, won the election with its most substantial support coming from the south-south, north-central, south-east and north-east geopolitical zones (see Table 2). The AD/APP with a former Secretary General of the Federation, Olu Falaye, as its flag bearer had the majority support from the south-west geopolitical zone, scoring total votes of: Lagos (88.1%), Ondo (85%), Osun (76.5%), Oyo (75.3%), Ekiti (73.1%) and Ogun (69.8%), as well as two states from the north-west geopolitical zone, *viz.*: Zamfara (64.1%) and Sokoto (56.1%). The PDP's largest support came from Taraba, Katsina, Rivers, Niger and Akwa-Ibom States with 90.7%, 86.8%, 86.4%, 83.9% and 82.7% of votes in these states, respectively. Other states where the PDP had huge support were Adamawa (78.9%), Benue (78.5%), Kaduna (77.2%), Enugu (76.6%), Anambra (76.1%), Edo (76%), Kano (75.4%), Bayelsa (75%), Plateau (74.2%), Ebonyi (72.6%), Kwara (71.3%), Nassarawa (71%), Bauchi (70.9%) and Delta (70.7%).

Based on this result, the AD/APP was most preferred in the south-west region of the country, while the PDP support spread across other zones of the country. Interestingly, both major contenders were of Yoruba ethnic extraction. However, Olusegun Obasanjo of the PDP was more preferred nationally than the AD/APP, which was most preferred by Yoruba. Apart from the south-west zone, Olu Falaye was of no good appeal to voters in other zones. Even though the parties had massive support in various states across the federation, the effect of neighbourhood cues was low. Thus, the 1999 election represents a new dawn because although a little clustering of electoral support homogeneity can be observed, significant spatial clustering of

voting has not emerged. This result is buttressed by regression analysis (Table 4), which shows that in 1999, controlling for the socio-economic variables, religion had a negative effect on VCH. A 1-percentage-point increase in religious homogeneity was associated with a 28.642-unit decrease in the percentage of VCH. This effect is not significant at 95% confidence level. Interestingly, all the socio-economic variables also have an insignificant negative effect on VCH. Thus, the VCH did not reflect the main religious fault-lines in Nigeria.

The homogeneity of voter choice in the 1999 election is random, as shown in Fig. 2 and Table 3. However, seven states had very high VCH: Lagos (76.2%), Ondo (70%) Rivers (72.8%), Akwa Ibom (65.4%), Katsina (67.6%), Niger (67.7%) and Taraba (81.4%). Conversely, nine states had very low VCH, namely Gombe, Borno, Yobe, Sokoto, Zamfara, Jigawa, FCT, Kogi and Imo state. As the Moran statistics indicate, the pattern of VCH in the 1999 Nigerian presidential election is random and significant at 95% confidence level (see Table 3). This result suggests that there was no considerable neighbourhood effect in voter choice. It has been argued that ethnicity shapes political decisions in competitive elections such as the presidential poll in Africa (Eifert, Miguel,, Posner, 2010) especially in Nigeria (Joseph, 2014). Thus, for the fact that the main contestants are from the same ethnic group, one would expect a random pattern and low level of VCH given that Nigeria is an ethnically diverse state. The heterogeneity of voter choice can also be attributed to the reason that the AD, which had devoted itself to narrow regionalist or ethnic politics, formed a coalition with the APP to contest the presidential election.

Ihonvbere (1999) argued that the change of heart by the AD to seek the presidential office confused many of its supporters given the AD's original claim to ideological purity. Thus, AD's alliance with the APP, which was dubbed the "Abacha Peoples Party" for having connections with the late dictator, General Sani Abacha, divided its supporters and paved the way for the PDP's victory. While this could be a factor for the PDP victory, the results of this paper suggest that voter choice was significantly heterogeneous. Given that Nigeria practises a majoritarian democracy (Joseph, 2014), the preferences of many voters who did not choose the winning party are of-

Table 1. Homogeneity in vote choice in Nigerian presidential elections (%)

S/N	States	1999		2003		2011		2015	
		WP	DWPOV	WP	DWPOV	WP	DWPOV	WP	DWPOV
1	Abia	PDP	34.6	PDP	5.5	PDP	98.28	PDP	90.75
2	Adamawa	PDP	57.9	PDP	39.1	CPC	14.43	APC	19.34
3	Akwa Ibom	PDP	65.4	PDP	71.2	PDP	89.76	PDP	87.99
4	Anambra	PDP	52.2	PDP	12.5	PDP	98.3	PDP	98.52
5	Bauchi	PDP	49.0	ANPP	25.3	CPC	64.60	PDP	82.86
6	Bayelsa	PDP	50.6	PDP	93.5	PDP	99.42	PDP	96.98
7	Benue	PDP	57.0	PDP	13.3	PDP	34.55	APC	10.28
8	Borno	PDP	27.0	ANPP	30.7	PDP	59.03	APC	89.24
9	Cross River	PDP	35.1	PDP	96.8	PDP	96.31	PDP	85.79
10	Delta	PDP	41.3	PDP	90.3	PDP	97.86	PDP	91.69
11	Ebonyi	PDP	45.2	PDP	89.9	PDP	95.55	PDP	83.58
12	Edo	PDP	52.0	PDP	78.4	PDP	75.69	PDP	15.66
13	Ekiti	AD/APP	46.3	PDP	89.7	PDP	5.86	PDP	18.67
14	Enugu	PDP	53.2	PDP	62.3	PDP	97.86	PDP	94.01
15	Gombe	PDP	26.2	ANPP	6.4	CPC	21.58	APC	57.4
16	Imo	PDP	14.6	PDP	31.6	PDP	96.39	PDP	60.59
17	Jigawa	PDP	13.6	ANPP	61.98	CPC	20.21	APC	71.62
18	Kaduna	PDP	54.5	PDP	7.6	CPC	5.17	APC	39.79
19	Kano	PDP	50.8	ANPP	22.7	CPC	42.71	APC	79.30
20	Katsina	PDP	67.6	ANPP	53	CPC	44.19	APC	86.00
21	Kebbi	PDP	32.8	ANPP	31.1	ACN	11.48	APC	68.97
22	Kogi	PDP	3.2	PDP	24.5	PDP	46.48	APC	27.26
23	Kwara	PDP	42.6	PDP	38	PDP	31.88	APC	38.53
24	Lagos	AD/APP	76.2	PDP	53.9	PDP	34.17	APC	11.09
25	Nassarawa	PDP	42.0	PDP	30.9	PDP	18.64	PDP	7.16
26	Niger	PDP	67.7	PDP	8.6	CPC	31.18	APC	62.49
27	Ogun	AD/APP	39.6	PDP	99.8	PDP	16.91	APC	18.82
28	Ondo	AD/APP	70.0	PDP	90.5	PDP	61.88	APC	8.65
29	Osun	AD/APP	53.0	PDP	92.7	ACN	20.35	APC	20.8
30	Oyo	AD/APP	50.6	PDP	90.6	PDP	16.23	APC	25.56
31	Plateau	PDP	48.4	PDP	35.8	PDP	46.99	PDP	12.27
32	Rivers	PDP	72.8	PDP	90.4	PDP	96.45	PDP	90.57
33	Sokoto	AD/APP	12.2	ANPP	47.6	CPC	23.26	APC	62.30
34	Taraba	PDP	81.4	PDP	54.6	PDP	23.74	PDP	8.54
35	Yobe	AD/APP	6.0	ANPP	28.9	CPC	34.45	APC	88.8
36	Zamfara	AD/APP	28.2	ANPP	60.6	CPC	38.99	APC	61.41
37	FCT	PDP	19.6	PDP	3.3	PDP	30.03	PDP	3.52

Note: WP, winner party; DWPOV, the percentage difference between winner party's votes and other parties' votes

ten ignored in the analysis of voting behaviour. This limitation is replete with many studies of the Nigerian elections that did not consider the homogeneity of voter choice (e.g., Ihonvbere, 1999; Momoh, Thovoethin, 2001; Kura, 2008). This will be illustrated with the work of Ihonvbere (1999), which argued that Hausa-Fulani ethnic groups in northern Nigeria voted for Obasanjo and against Falae because the latter was considered an AD Yoruba irredentist while Obasanjo could be trusted to sustain if not augment the interests of the North.

Meanwhile, the Igbo and other minority ethnic groups in the south-east and south-south zones followed their respective prominent leaders to support the PDP (Ihonvbere, 1999). While this could be the case when we consider party support in terms of majority votes, a different pattern is revealed when we look at the homogeneity of voters' choice, and this can only be better appreciated through spatial analysis and mapping. The spatial analysis shows that voters in the 1999 election had choices that

were more heterogeneous (Fig. 2). Thus, if the arguments of Ihonvbere (1999) were entirely the case, then we would have a clustered pattern, but as the *Moran Index* shows (Table 3), the pattern is random. This result is bolstered by hotspot analysis (Fig. 3) which shows that all the four hotspots (Niger, Ogun, Delta and Yobe States) were surrounded by low values – a low level of VCH.

4.2. The 2003 Presidential Election

The 2003 election saw the onset of significant neighbourhood effect as voters' choice became homogeneous in southern Nigeria and there was a pocket of homogeneity in the north-west zone. Of course, when the election results are analysed based only on the percentage of votes received by political parties, this pattern will not be lucid. The election was contested by the ruling PDP with the incumbent president, Obasanjo, as its candidate, the All Ni-

Table 2. Percentage distribution of voters' choice by geopolitical zone in the 1999 election

North West	AD/APP	PDP	North Central	AD/APP	PDP	North East	AD/APP	PDP
Jigawa	43.2	56.8	Abuja (FCT)	40.2	59.8	Adamawa	21.0	78.9
Kano	24.6	75.4	Benue	21.5	78.5	Bauchi	21.9	70.9
Katsina	19.2	86.8	Kaduna	22.7	77.2	Borno	36.5	63.5
Kebbi	33.6	66.4	Kogi	48.4	51.6	Gombe	36.9	63.1
Sokoto	56.1	43.9	Kwara	28.7	71.3	Taraba	09.3	90.7
Zamfara	64.1	35.9	Nassarawa	29.0	71.0	Yobe	53.0	47.0
			Niger	16.2	83.9			
			Plateau	25.8	74.2			
South West	**AD/APP**	**PDP**	**South East**	**AD/APP**	**PDP**	**South-South**	**AD/APP**	**PDP**
Ekiti	73.1	26.8	Abia	32.7	67.3	Akwa-Ibom	17.3	82.7
Lagos	88.1	11.9	Anambra	23.9	76.1	Bayelsa	24.4	75.0
Ogun	69.8	30.2	Ebonyi	27.4	72.6	Cross River	32.2	67.3
Ondo	85.0	15.0	Enugu	23.4	76.6	Delta	29.4	70.7
Osun	76.5	23.5	Imo	42.7	57.3	Edo	24.0	76.0
Oyo	75.3	24.7				Rivers	13.6	86.4

Table 3. Moran statistics estimates

Year	Moran I	E[I]	Variance	z-score	p-value	Remark
2015	0.527	-0.028	0.010	5.596	0.01	Clustered
2011	0.706	-0.028	0.010	7.475	0.01	Clustered
2007	NA	NA	NA	NA	NA	NA
2003	0.346	-0.028	0.010	3.667	0.01	Clustered
1999	-0.027	-0.028	0.020	-0.1113	0.49	Random

gerian People's Party (ANPP), an offshoot of the APP with a former military dictator, General Muhammadu Buhari, as its flag bearer and the All Progressive Grand Alliance (AGPA) with the former Biafran leader, Odumegu Ojukwu, as its candidate. The ANPP garnered the majority support in the north-west zone with: Jigawa (80.4%), Zamfara (80%), Katsina (76.2%), Kano (74.9%), Sokoto (73.3%) and Kebbi (65%) (Table 5). The influence of Buhari, who hails from Katsina State, can be said to have drifted electoral support from the PDP to ANPP in the region. As a former Head of State, Buhari was far more popular in the north than Obasanjo. Even though the PDP won all the states in the north-central zone, it was a tense contest between it and the ANPP. As Table 1 and Fig. 2 show, VCH in that zone was very low.

In the north-east zone, we can see the stiff contest for votes between the PDP and the ANPP, which yielded a low level of VCH. The observed pockets of very high and low VCH in the south-east zone are due to the influence of Ojukwu, which divided the voters who supported the PDP in 1999, with APGA receiving some support, although it did not win the majority vote in any of the states in the region. Its best came at Abia State, where it received 34.9% of the total votes cast. The PDP had over 90% of votes in the south-west except in Lagos, where it recorded 69.3% and over 80% in the south-south. Hence the very high level of VCH in these zones. The success of the PDP in the south-west compared with the 1999 election can be attributed to the fact that AD did not contest the presidential election, so the regional identity and Falae effect were elim-

Table 4. Regression estimates of VCH

		1999	2003	2011	2015
Model 1	(Constant)	65.405**	-13.489	-19.541	15.537
		(19.214)	(31.823)	(43.419)	(44.379)
	Unemployment	-.464	.225	.692	.693
		(.709)	(.424)	(.573)	(.473)
	Adult Literacy	-.062	.932*	.937*	.285
		(.235)	(.388)	(.461)	(.491)
	Absolute poverty	-.891*	-.044	-.600*	.680
		(.377)	(.606)	(.901)	(.971)
		R=.431; R^2 =.186; AR^2 =.111	R=.416; R^2 =.173; AR^2 =.098	R=.427; R^2 =.183; AR^2 =.108	R=.265; R^2 =.070; AR^2 =-.014
Model 2	(Constant)	84.566	-17.044	-41.191	-24.001
		(21.440)	(36.199)	(42.992)	(33.531)
	Unemployment	-.306	.181	.497	-.272
		(.692)	(.475)	(.557)	(.392)
	Adult Literacy	-.095	.931*	.869	-.019
		(.229)	(.394)	(.443)	(.366)
	Absolute poverty	-.845	-.048	-.909	-.422
		(.365)	(.615)	(.877)	(.745)
	Religion	-28.642	6.428	53.489	134.399**
		(15.948)	(29.575)	(26.875)	(25.069)
		R=.510; R^2 =.260; AR^2 =.168	R=.417; R^2 =.174; AR^2 =.071	R=.522; R^2 =.273; AR^2 =.182	R=.714; R^2 =.510; AR^2 =.449

** p-value ≤0.01; * p-value ≤0.05; standard error in parenthesis

inated. Table 3 shows that the pattern of VCH in the 2003 election is clustered and significant at a 99% confidence level. Furthermore, as Fig. 3 shows, the VCH was very high in southern Nigeria, with a high level of neighbourhood effect in the southwest and south-south geopolitical zones.

Of the 17 states in southern Nigeria, VCH was very high in 13 (76.5%), namely Akwa Ibom (71.2%), Bayelsa (93.5%), Cross River (96.8%), Delta (90.3%), Ebonyi (89.9%), Edo (78.4%), Ekiti (89.7%), Enugu (62.3%), Ogun (99.8%), Ondo (90.5%), Osun (92.7%), Oyo (90.6%) and Rivers (90.4%). Only two states, *viz.*: Jigawa (61.98%) and Zamfara (60.6%), had a very high homogeneous voter choice in the entire north, indicating that even though ANPP won most states in the northwest, the PDP received a good number of votes. A low level of homogeneous voter choice is observed in the north-central region stretching towards the north-east zone, indicating the stiff contest for electoral support in those regions. A high level of VCH is also observed in the north-west. One inference from this result is that the influence of party identity at regional levels had set in to mediate neighbourhood effect in electoral choices as voters in the north-west zone identified with the ANPP while the voters in the south identified with the PDP. The north-central and north-east were competitive zones for both parties. Thus, neighbourhood effect can be observed as voters in states in the same region begin to draw political preference cues from each other.

The hotspot analysis (Fig. 3) indicates significant clusters of support for Obasanjo of the PDP in the south-west region, and significant clustering of heterogeneous voters' choice in the north-central even though the PDP won states in that region. From the regression analysis (Table 4) all the variables have a positive effect on VCH except absolute poverty. The effect of adult literacy and religious homogeneity were highest, although the effect of religion is not significant. This result shows that religion influenced voters' choices – a 1-percentage-point increase in religious homogeneity was associated with a 6.428-unit increase in the percentage of VCH. A 1-percentage-point increase in adult literacy leads to a 0.931-unit increase in the percentage of voters having a similar choice. This result does not provide robust evidence to argue that the voting pattern significantly mirrored the religious cleavages of the country, but we can observe that it was the beginning of the influence of religious identity on Nigerian presidential elections. Figure 4 shows this more clearly, as the regression coefficient for religion has an increasingly upward trajectory from a negative point in 1999.

4.3. The 2011 Presidential Election: The South-West Drift

Following Obasanjo's failure to get an extension of his term limit in 2007, he influenced his succession process by advancing the candidacy of two governors, keeping in mind the PDP's plan of rotating top political positions to different ethno-religious and regional groups at even intervals (Lewis, 2011). Given that Obasanjo is Christian, a northern Muslim was scheduled to become the president after him. Thus, Yar'Adua from Katsina state in the north and Jonathan from Bayelsa state in the Niger Delta region were nominated (Lewis, 2011; Omotola, 2006). The PDP's closed-door candidate-nomination procedure was conceived as an anointing by the departing president and the party leadership, and Yar'Adua was particularly unpopular nationally and was alleged to be in poor health (Lewis, 2011). Yar'Adua was declared the winner of the 2007 presidential election by INEC in what was described as a "muddled election" (Suberu, 2007) and the most flawed in the country's history (Adebayo, Omotola, 2007), replete with malpractices (Omotola, 2007). The failure of INEC to release a comprehensive result of the election lends credence to these assertions.

The events preceding the 2011 election caused a lot of political permutations following the death of the president, Umaru Musa Yar'Adua, in May 2010 and the swearing-in of his Vice, Goodluck Jonathan, as president. President Jonathan contested the 2011 election and won against Buhari of the Congress for Progressive Change (CPC) – a faction of the ANPP that broke away to form it and Nuhu Ribadu of Action Congress of Nigeria (ACN). The ACN changed its name from Action Congress (AC) to have a national appeal, but it was an offshoot of the south-west regionalist party AD. Even though the results of the presidential poll gave the PDP a decisive vic-
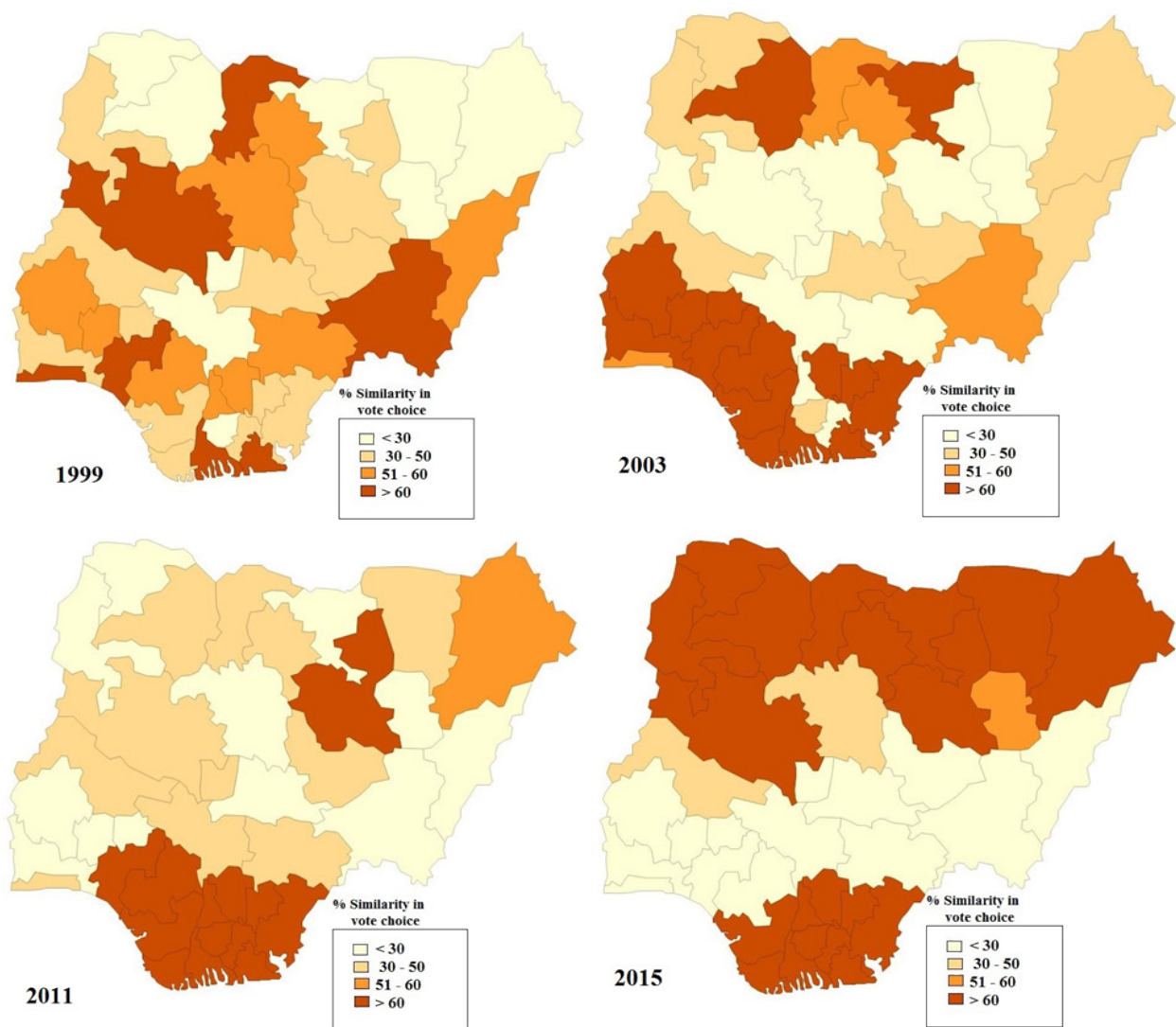
Fig. 2. The spatial pattern of VCH in Nigerian elections
NB: darker shades indicate zones of a high level of homogeneity.

tory in numerical terms, there were heightened sectional tensions about Jonathan's candidacy (Lewis, 2011). Like the ANPP in 2003, the CPC had tremendous support in the north-west zone, with 59.27% of total votes, while the PDP got 19.34% and ACN (14.60%). Incredibly, the ACN got most of the votes in Kebbi State (54.26%) ahead of the CPC, which scored the highest vote in the region.

The PDP recorded a decrease in its support base from the 2003 election and suffered the highest defeat in Kebbi and Katsina States, recording as low as 2.83% and 0.67% respectively, against 23.0% and 33.4% in the 2003 election (compare Tables 5 and 6). The ACN, however, polled its highest votes in

these two states within the north-west zone, with 26.13% and 54.26%, respectively. The PDP maintained its dominance in the north-central area, except in Kaduna and Niger States, where the CPC beat it with a margin of 5.61% and 32.49%, respectively. The ACN performance in this region was deficient, but it managed to poll 21.29% and 12.64% of votes in Benue and Kwara States, respectively. In the north-central zone, the PDP scored 59.44%, the CPC 33.56% and the APC 4.79%. In the north-east zone, the PDP won two states – Borno and Taraba – polling 77.25% and 61.06%, respectively. The CPC won the remaining four states in the region, which amounts to 50.69% as the average votes it

Table 5. Percentage distribution of voters' choice by geopolitical zone in the 2003 election

North West	ANPP	APGA	PDP	North Central	ANPP	APGA	PDP	North East	ANPP	APGA	PDP
Jigawa	80.4	00.2	18.4	Abuja (FCT)	38.0	08.6	49.9	Adamawa	29.8	00.2	69.1
Kano	74.9	00.5	22.7	Benue	40.8	00.5	54.6	Bauchi	62.1	00.1	36.7
Katsina	76.2	00.2	23.0	Kaduna	45.4	00.4	53.4	Borno	65.0	00.3	34.0
Kebbi	65.0	00.5	33.4	Kogi	36.4	00.3	61.2	Gombe	52.9	00.2	46.3
Sokoto	73.3	00.7	25.0	Kwara	29.6	00.4	68.0	Taraba	21.9	00.1	76.6
Zamfara	80.0	00.4	19.0	Nassarawa	33.5	00.2	64.6	Yobe	64.0	00.6	34.5
				Niger	39.7	01.2	49.5				
				Plateau	30.9	00.6	67.3				

South West	ANPP	APGA	PDP	South East	ANPP	APGA	PDP	South South	ANPP	APGA	PDP
Ekiti	02.3	00.4	92.4	Abia	11.3	34.9	51.7	Akwa-Ibom	12.6	00.1	83.9
Lagos	07.1	08.3	69.3	Anambra	09.2	32.4	54.1	Bayelsa	02.5	00.0	96.0
Ogun	00.1	00.0	99.9	Ebonyi	02.0	02.6	94.5	Cross River	00.9	00.2	97.9
Ondo	03.6	00.5	94.6	Enugu	01.7	15.7	79.7	Delta	02.4	01.3	94.0
Osun	02.3	00.2	95.2	Imo	05.3	27.7	64.6	Edo	09.9	00.2	88.5
Oyo	02.8	00.5	93.9					Rivers	02.0	00.3	92.7

received in the area, against the PDP with 41.48% and the ACN with 1.52%. With this, the PDP maintained its dominance in Taraba, regained support in Borno and lost Adamawa State. There was, however, a decline in the acceptance level for the PDP, with a decrease from 45.62% to 41.48% in the region. The south-west region was intensely contested by the PDP and ACN. The ACN controlled most of the states in the area, but the PDP managed to poll an average of 57.80% of the total votes.

Even though the ACN dominates the executive of the region, it won only in Osun State, scoring 58.6% of the votes, and came very close to a win in Ekiti State, with 44.67%. The PDP won all the remaining five states with its highest support coming from Ondo and Lagos States, where it scored 79.57% and 65.90% of the votes, respectively. Like the 2003 election, a very high level of VCH in 2011 clustered in southern Nigeria but the level was higher in the south-south and south-east zones, unlike Ondo state in the south-west. As Fig. 2 shows, the 2011 voting pattern represents the beginning of a shift in the political choice of voters in the south-west zone taking the semblance of voters' choice in the north-central region in 2003. The low level of VCH in the south-west compared with the very high level witnessed in 2003 can be attributed to

the contest of the presidential seat by the regional party ACN. The high degree of homogeneity observed in the north-west in 2003 shifted towards the north-east, but with a lesser concentration in Bauchi (64.6%) and Borno (59.03%).

Overall, the pattern of VCH in the 2011 election was clustered and significant at a 99% confidence level (Table 3). As the hotspot analysis (Fig. 3) shows, the high value surrounded by similarly high values in the south-east and south-south reveals the round rallying effect for Jonathan in the election, due to his affinity with the region. Thus, a high level of neighbourhood effect was observed in the area. In 2011, adult literacy, unemployment and religion had a positive influence on voters' choice; absolute poverty had a negative effect. None of the variables' effect was significant. However, religion had the most substantial impact with a 53.489-percentage-point increase in VCH for every unit increase in religious homogeneousness. Compared with the 2003 election, the influence of religion on VCH increased by 47.061 percentage points (see Fig. 4) suggesting that voter choice was becoming more religiously divided.

4.4. The 2015 Presidential Election

Being a Christian and from the Niger Delta region, Jonathan's contest for the 2015 presidency was considered a negation of the joint political equilibrium arrangements for collective power-sharing among the Nigerian political elites (Lewis, 2011; Orji, 2014). Thus, there were resentments among Muslim-majority northern states wanting Jonathan to relinquish power to another northerner to complete the tenure of Yar'Adua (Awopeju, Adelusi, Oluwashakin, 2012). The result of the political permutations, combinations, cross computation and northern resentments catalysed the coalition of the north and western political class to form the All Progressives Congress (APC) (Owen, Usman, 2015). The APC is a merger of the ACN, CPC and a faction of APGA and ANPP. The product of the coalition is a significant shift in the Nigerian electoral landscape. "A nation of two voting worlds" is perhaps a way to depict this scenario. However, it signals the very high level of neighbourhood effect that resulted from ethno-religious and regional identity narratives and discourses that beclouded the political atmosphere following the 2011 departure from the PDP zoning principle that gave Jonathan the PDP's presidential ticket.

Some scholars, e.g. Lewis, Kew (2015) and Owen, Usman (2015), have cited issues such as corruption, poor governance, economy and security as the factors that affected Jonathan in the polls. While these factors contributed to voting behaviour, the 2015 electoral map nearly, if not perfectly, fits the Nigerian ethno-religious cleavage. The core north of Nigeria has the Muslim-majority states, while the south-east and south-south have the Christian-majority states. The south-west and north-central have a mix of Muslims and Christians in varying proportions. So, as the result of the spatial analysis shows, the electoral map of the country was reshaped into a two-world VCH with a very high level at the core north and south-south/south-east on the one hand and a region of low VCH in the south-west stretching across the north-central (Fig. 2). These are two worlds of party dominance. In the core north, the APC, whose candidate is a Fulani and a Muslim (specifically from Katsina State in the north), dominated the region, while the PDP, whose candidate

is a Christian from the south, dominated the core Christian region.

The voting pattern in the 2015 election is an indication of a high-level clustering of partisan vote choice because of stiff competition between Jonathan and Buhari, compared with other regions where voters' preferences are heterogeneous. These patterns are significant at the 99% confidence level (Table 3) and lend credence to Olasile and Adebayo's (2016) argument that ethnic and religious sentiments shaped the 2015 election. Table 7 presents the results of the 2015 election. The victory of the APC at the 2015 poll means that for the first time the PDP became an opposition party after sixteen years of dominance at the federal level, but many PDP members had decamped to the APC before the election. Besides this, for the first time, an opposition party could win the north-central region since the turn of the fourth republic. Oppositions have won other areas in the north, except the north-central, but this did not happen without the PDP claiming victories in FCT, Nasarawa and Plateau states in the area with 51.24%, 53.46% and 55.95% of total votes, respectively. The APC got its highest support in the north-west, winning all the states in the zone with Katsina, the state of origin of the APC candidate, as the zenith of the APC's support in the area, with 85.42% of votes in this region. The APC claimed victory in the north-east with 77.04% against PDP (22.19%).

However, the PDP won 53.62% of the votes in Taraba State. The north-west and north-east regions fell into the hands of the opposition in 2003, and since that time, the PDP has never won the zone. The PDP had always scored about 40% of votes in the north-east region beginning in 2003, but have it halved to 22.19% in the 2015 election due in part to the inability of the party to curtail the rampaging insurgents in the region. Surprisingly, the PDP scored 39.57% in Adamawa State despite the wrath of insurgents in the state, whereas other states gave less than 10% of their support. The south-west zone was well contested, but the APC received the most substantial support with 54.31% against the PDP, which polled 43.27%. The PDP won Ekiti State and came very close in Ondo and Lagos State, with 44.8% and 43.8%, respectively. The south-east and south-south zones were the strongholds of the PDP, receiving over 80% of votes in all the states except

Table 6. Percentage distribution of voters' choice by geopolitical zone in the 2011 election

North West	ACN	CPC	PDP	North Central	ACN	CPC	PDP	North East	ACN	CPC	PDP
Jigawa	1.52	58.21	36.75	Abuja (FCT)	0.58	33.05	63.66	Adamawa	3.61	56.00	37.96
Kano	1.58	60.77	16.48	Benue	21.29	10.47	66.31	Bauchi	1.04	81.69	16.05
Katsina	26.13	70.99	0.67	Kaduna	0.44	51.92	46.31	Borno	0.64	17.58	77.25
Kebbi	54.26	39.95	2.83	Kogi	1.16	23.53	71.17	Gombe	0.44	59.73	37.71
Sokoto	2.21	59.44	33.97	Kwara	12.64	20.16	64.68	Taraba	2.41	34.91	61.06
Zamfara	1.91	66.25	25.35	Nassarawa	0.17	40.08	58.89	Yobe	0.98	54.26	18.83
				Niger	1.31	64.03	31.54				
				Plateau	0.72	25.27	72.98				

| South West	ACN	CPC	PDP	South East	ACN	CPC	PDP	South-South	ACN	CPC	PDP
Ekiti	44.67	1.03	51.56	Abia	0.37	0.31	98.96	Ak-wa-Ibom	4.39	0.43	94.58
Lagos	21.96	9.77	65.90	Anambra	0.30	0.36	98.96	Bayelsa	0.07	0.14	99.63
Ogun	36.70	3.25	56.86	Ebonyi	0.22	0.20	95.97	Cross River	0.81	0.55	97.67
Ondo	15.25	2.44	79.57	Enugu	0.22	0.46	98.54	Delta	0.09	0.64	98.59
Osun	58.46	1.36	36.75	Imo	1.05	0.54	97.98	Edo	8.73	2.86	87.28
Oyo	29.21	10.70	56.14					Rivers	0.88	0.71	98.04
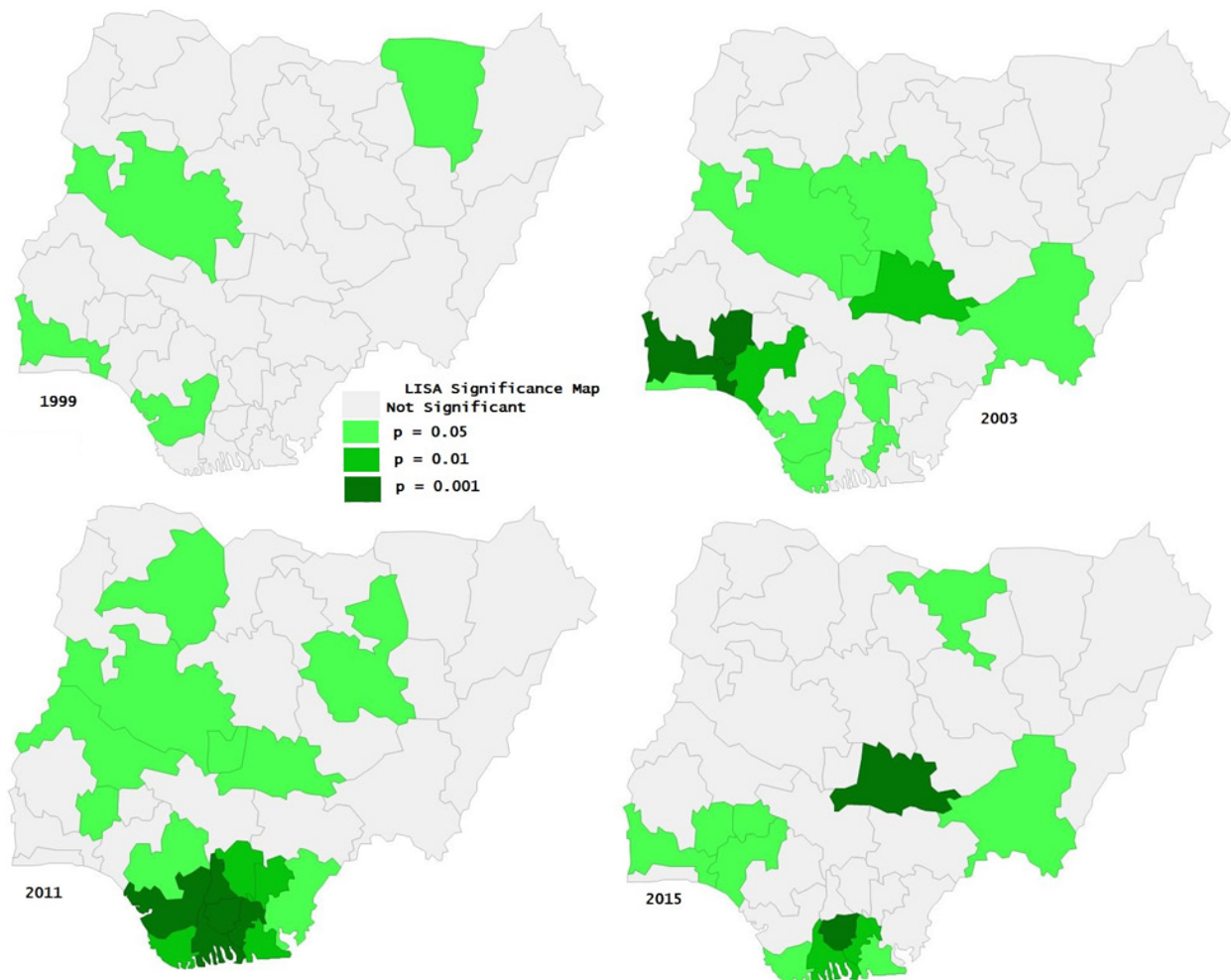
Fig. 3. VCH hotspots in Nigerian presidential elections in the fourth republic

Table 7. Percentage distribution of voters' choice by geopolitical zone in the 2015 election

North West	APC (%)	PDP (%)	North Central	APC (%)	PDP (%)	North East	APC (%)	PDP (%)
Jigawa	85.39	13.77	Abuja (FCT)	47.72	51.24	Adamawa	58.91	39.57
Kano	89.44	10.14	Benue	54.73	44.45	Bauchi	91.30	8.44
Katsina	92.83	6.83	Kaduna	69.72	29.93	Borno	94.35	5.11
Kebbi	83.88	14.91	Kogi	62.86	35.60	Gombe	78.43	21.03
Sokoto	80.54	18.24	Kwara	68.66	30.13	Taraba	45.08	53.62
Zamfara	80.44	19.03	Nassarawa	46.30	53.46	Yobe	94.19	5.39
			Niger	80.83	18.34			
			Plateau	43.68	55.95			

South West	APC (%)	PDP (%)	South East	APC (%)	PDP (%)	South South	APC (%)	PDP (%)
Ekiti	40.02	58.69	Abia	3.43	94.18	Akwa-Ibom	5.74	93.73
Lagos	54.89	43.80	Anambra	0.00	98.52	Bayelsa	1.42	98.40
Ogun	57.82	39.00	Ebonyi	5.36	88.94	Cross River	6.30	92.09
Ondo	53.45	44.80	Enugu	2.47	96.48	Delta	3.86	95.55
Osun	59.69	38.89	Imo	18.96	79.55	Edo	41.66	57.32
Oyo	59.98	34.42				Rivers	4.42	94.99

in Imo and Edo States, where the APC managed to poll 18.96% and 41.66% of the votes due to the influence of the APC Governor, Rochas Okorocho and Adams Ishiomole in these states, respectively.

The most shocking outcome of the 2015 election is that the APC being a major party could not win any significant vote in Anambra State. A similar situation occurred in the 2003 election when APGA as a major party was unable to poll a substantial amount of the vote in Ogun and Bayelsa States (see Tables 5 and 7). In addition to this, the south-south and the south-east zones have never been won by any other party than the PDP since the turn of the fourth republic. The regression estimates (Table 4) show that, in the 2015 election, the influence of religion on voters' choices become greatly significant and positive. Other variables had a negative and insignificant effect. A 1-percentage-point increase in religious homogeneity was associated with a 134.399-unit increase in the percentage of VCH. The great magnitude of the effect of religion on VCH in 2015 can be better appreciated by looking at Fig. 4, which shows an upward surge since 2003. In comparison with 2011, the effect of religion on VCH is absolutely enormous, almost doubling, with a 80.91 increase in the percentage point per unit.

Thus, religious identity significantly shaped voters' choices, and the pattern of voting substantially reflected the religious fault-lines of the country.

5. Discussion and Conclusion

This paper has analysed the spatial pattern of VCH and tests the effect of religion on VCH in the presidential elections of the fourth Nigerian republic, and in this, an examination of the VCH pattern reflects the major cleavages in the country. The analysis shows that the pattern of VCH in the 1999 election was random but clustered from 2003 to 2015, although the 2011 geographical clustering of VCH was dissected and the 2015 pattern was regionalised. Thus, the paper has revealed that voting pattern in the Nigerian presidential elections of the fourth republic structured Nigeria's political landscape from a random pattern, to a clustered-but-dissected electoral landscape, to a clustered-but-regionalised milieu of a nation of two voting worlds. The pattern of a nation of two voting blocs was witnessed in the 2015 election, in which the VCH sharply depicts the religious cleavage of the country and to some
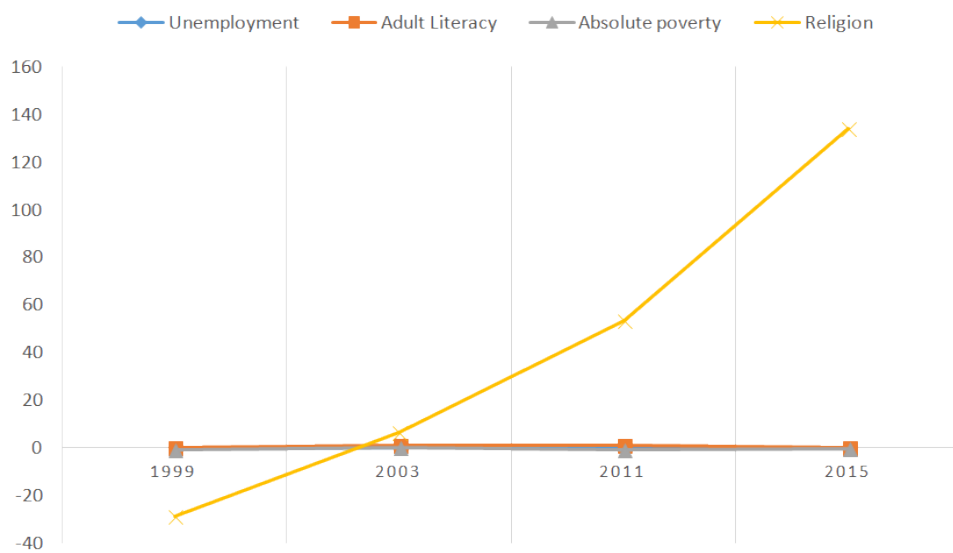
Fig. 4. Linear graph of regression coefficients of the variables influencing VCH

degree also mirrors the ethnic division. The study found that some economic indicators have a positive and significant effect on VCH from the 2003 election but were all insignificant and with negative impact in the 2015 election. The influence of religion on VCH was negative in the 1999 election but remained positive in subsequent elections and had an increasingly upward trajectory signifying the snowballing importance of faith in the citizens' political choices at the presidential polls.

Thus, the voters' political choices gradually metamorphosed and divided the country along its major religious fault-lines and to some extent ethnic cleavage, taking a semblance of the ethno-religious structure of the country. While some scholars have argued that economic, security and governance issues remain part of voters' consideration in the 2015 election, this paper demonstrates that such factors only become weighty when co-mingled with ethno-religious sentiments. The pattern that emerges from the influence of ethno-religious and regional sentiments on voter choice is obscured when the voting patterns are analysed by considering only the parties that won the majority votes in various states. The striking pattern that this paper has shown reveals the hidden influence of religious identity on vote choice, and this can be better appreciated when the VCH across the elections is evoked on a map revealing the socio-cultural landscape of the voting

dimension of the country, especially the political preferences of minority groups.

In general, the study finds reasons to support the argument in the literature that African electoral outcomes manifest along ethnic and religious cleavages (Horrowitz, 1985; Bogaards, 2003; Norris, Mattes, 2003; Mozaffar, Scarritt, Galaich, 2003; Posner, 2005). Also, the study provides evidence to support some of the claims in the literature of the voting behaviours in Nigeria. The paper finds support for studies that demonstrate that the voter choice in the 2015 election was shaped by ethnicity and religion (Olayode, 2015; Olasile, Adebayo, 2016) and regional identity (Lawal, 2017). However, the analysis in this present study could not statistically determine the effect of ethnicity, but it could be inferred from voting patterns (Fig. 2 and Table 7) in relation to the geographical location of the ethnic group of the candidates. The study finds no substantial support for Ihonvbere's (1999) analysis of the 1999 election, especially regarding the effect economic issues, because all the economic variables have a negative and insignificant influence on VCH. The 1999 election was a new dawn, where voting patterns had not yet aligned with the main cleavages in Nigeria. However, in subsequent elections, the voting pattern gradually shaped up to reflect the divisions. Contrary to Araba and Braimah's (2015) assertion that voting behaviour in the 2015 election was shaped by

issues that border on the economy, foreign policy and security, this study finds the effect of economic variables to be negative and insignificant. Religion has a significant positive influence on voter choice.

The implication of these findings is that the spatial clustering of instrumental voting can hold sway in Nigeria in the context of when religiously and ethnically dissimilar candidates from different regions seek the presidential seat on the platform of the major parties because of the geographical clustering of people with homogeneous cultural affinity. The basic argument of the instrumental voting theory, as well as the sociological model of voting, are still valid frames to analyse voting behaviours in Nigeria. Moreover, the Nigerian electoral geography in the period investigated is beginning to show some evidence of electoral cleavages that manifest along religious, ethnic and regional lines. Thus, the cleavage theory can be a valid framework for further analysis. The practical implications of the study are that while Nigeria's democracy is tending towards consolidation if the unexpected does not happen, e.g., military takeover, religious and ethnic identities can mar the country's development as competent candidates that have good policies will be voted out based on religious and ethnic sentiments. Thus, there is a need to de-emphasis religion and ethnicity in the Nigerian polity. Candidates and parties that campaign based on racial or religious narratives should be barred from contesting elective positions.

Forthermore, the country should be restructured to reflect a true federal state to enable regional authorities to oversee the management of their resources and development of their land and people, as the quest for controlling and distributing the state's resources through acquisition of the federal power at the polls is the primary reason for voters to support candidates of their cultural group regardless of whether they are credible or not. The limitation of the paper is that it does not include the ethnicity variable in the statistical analysis because of the unavailability of data. However, the paper's primary strength is that it has contributed to the literature on voting behaviours in Nigeria by exploring the geography of voting patterns with more focus on the influence of religion across the elections in the fourth republic, which was a hiatus in the literature. Also, the study uses spatial analysis, which previous studies have not explored.

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