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Chronic And Transitory Poverty in Nigeria

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Abstract

The broad objective of this study was to examine the dynamic nature of poverty in Nigeria using the Nigerian general household survey (NGHS) data covering the period 2010-2020. The study used ex-post facto approach to assess the dynamic nature of poverty from 2010-2020.The analysis in the study was limited to the panel data aspect of the NGHS and a spell approach was employed to decompose poverty into chronic and transitory, while multinomial logit model was formulated to assess the determinant of chronic and transitory poverty in Nigeria overtime. The analysis showed that 36.8% of the total households in Nigeria suffered from chronic poverty while 28.4% suffered from transitory poverty. Chronic poverty was found to be prevalent in the Northern region of Nigeria compared to the southern region. The analysis also shows that household size, urban residence, access to electricity, access to portable water and access to credit are the major factors influencing chronic poverty in Nigeria, while household size area of residence, access to electricity, educational qualification of household head and access to potable water were identified as factors influencing transitory poverty. The study, therefore, concluded that to formulate and implement poverty reduction policies that will adequately address poverty in the country, it is important to consider the dynamic nature of poverty to know the extent of chronic and transitory poverty in the country. The study therefore recommended that government should formulate and implement policies on geographical zone to address poverty according to poverty dynamics. Also, government should adopt policies on birth control to reduce household size.

Keywords: Chronic Poverty, Transitory Poverty, Household, Spell Approach, Income

1. Introduction

Poverty is a situation in which a nation is faced with economic, social, environmental, cultural, and political deprivation (Justine, Ighodalo and Okpo, 2012). It is a state in which nations, households, persons, and communities are subjected to involuntary deprivation. The whole of humanity is faced with the problem of poverty as it deprives a man of his fundamental human rights. In Africa, majority of its population dwell in poverty as poverty has ravaged the continent. Since poverty is a universal phenomenon, every reasonable government seeks to eradicate poverty from their country (Nsikak and Udoh, 2013).

Poverty in developing countries including Nigeria, has been on the increase, since the late 1990s. The poverty situation in Nigeria has taken a bad turn, and could be described as "catastrophic". According to World Bank (2021), the poverty level in Nigeria has overtime worsened and is expected to further exacerbate, given the current COVID19 pandemic ravaging the world. The Nigerian government, being aware of the social vices that accompany rising poverty, has formulated and implemented several poverty alleviation policies in an attempt to tackle the rising poverty rate in the country, however, none of the policies has achieved the desired results (Adepoju, 2012). Scholars including Justine, Ighodalo, and Okpo (2012), believe that, the failure of these policies to achieve the expected results (poverty eradication) can be attributed to corruption, high unemployment rate, high debt burden, low productivity, and macro-economic distortions.

Recently, Nigeria has been called the poverty capital of the world. According to NBS (2020), Nigeria's poverty profile has been on an upward trend on the average over the past decades. For example, the poverty level in Nigeria rose from 28.1% in 1980 to 46.3% in 1985. In 1992 it was 42.7% but it skyrocketed to 65.6% in 1996 and later fell to 54.4% in 2004, then it increased to 69.3% in 2010, and further increased to 71.5% in 2011 then dropped to 60 % in 2015 then jumped to 62 % in 2016 and fell to 40.1% in 2019 and 42% in 2020 and it is expected to increase in 2022 given the COVID19 pandemic.

In Nigeria, despite the government's effort to tackle poverty, the living standard of the majority of its citizens has declined drastically rather than improve (Jaiyeola and Bayat, 2020). Due to the rising inflation rate, an average worker barely earns enough income to take care of his family. The newly adopted national minimum wage of N30, 000 per month is barely enough to cover the cost of housing, transportation, feeding, healthcare, and education (Jaiyeola and Bayat, 2020). In Nigeria, citizens living in the rural areas live in mud houses or cement houses with thatched. Low-income earners living in the urban area dwell in slums or crowded apartments. Electricity services in the rural areas of Nigeria are hardly available while water supplies in these areas are mostly infested with worms that are disease carriers. The high level of poverty in the country has adversely affected majority of its citizens dwelling in rural areas the most.

The level of poverty in the country has led to a brain drain situation as citizens leave Nigeria to other countries in search of a good life and also has brought about social unrest in most cities. Income disparity between the rich and poor has worsened, access to clean water supply, serene environment and adequate shelter has been low. However, the Nigerian government has formulated and implemented a number of programmes in their quest to eradicate poverty in the country. Some of these programmes include; Operation Feed the Nation (OFN), Green Revolution (GR), National Directorate of Employment (NDE), etc. Despite these heartwarming programs, the percentage of poor people seem not to have reduced as expected. This could be attributed to the fact that Nigeria uses a static poverty measure based on cross-sectional data to identify who is poor.

According to Dang and Dabalen (2019), static poverty measures fail to differentiate between people who happen to have had a small misfortune (e.g. losing their jobs or suffering from illness) in the year the measurement was carried out and those who have been living in poverty all their lives. And this differentiation matters. In Nigeria, poverty is not viewed as a dynamic phenomenon but a static one. So, targeting households that are currently poor for intervention do not take into consideration other households whose welfare may fall quickly in the event of a shock.

The fact that some households, due to negative shocks, temporally suffer from poverty while other households suffer from poverty for a long time, this makes the dynamic nature of poverty very important in the analysis of poverty. The dynamic nature of poverty suggest that poor households today may not be poor tomorrow and this has gained recognition in recent times (Adepoju, 2012). In Pakistan, Arif and Bilquees (2007) observed that, a number of households moved into poverty after experiencing temporal shocks such as job loss or illness for a year or two after which they moved out of poverty. They also observed that a number of other households who moved out of poverty ended up becoming poor again after a year or two. This brings to the fore the importance of the dynamic nature of poverty in formulating policies to tackle poverty and, the implementation of anti-poverty programs.

Analyzing the changes in the welfare of households over a period of time differentiates between households that are transitorily poor and those that are chronically poor (Albuquerque and Gonçalves, 2020). Research on the dynamic nature of poverty has shown that the factors influencing transitorily poor households may not be the same factors influencing chronically poor households. This implies that alternative poverty reduction policies may be required in targeting chronically poor household and transitorily poor households as their characteristics may differ (Dang and Dabalen, 2019). However, it is of utmost importance for policy makers to understand the factors influencing transitory poverty as, households in transitory poverty can easily suffer from chronic poverty if nothing is done (Baulch and McCulloch 1999).

In recent research it has been established that in assessing the welfare of poor households in developing countries and Nigeria in particular, it has become imperative to take into account the dynamic nature of poverty if effective poverty reduction strategies are to be implemented (Dapel, 2018). This is the focus of our study.

Both quantitative and qualitative measurements attest to the growing incidence and depth of poverty in the country (NBS, 2020). This situation however, presents a paradox considering the vast natural and human resources that the country is endowed with. It is even more disturbing that despite the huge material and human resources that have been devoted to poverty reduction by successive governments, no noticeable success has been achieved in this direction (Apata, Apata, Igbalajobi, and Awoniyi, 2010).

In Nigeria, poverty level is high with an average of between 62% and 75% of the population living on less than a dollar a day (Adepoju, 2012). Besides, it has become increasingly evident that within the African region, the poor are heterogeneous and that some element of dynamics does exist with a clear distinction between chronic and transitory poverty (Apata, Apata, Igbalajobi, and Awoniyi, 2010). Chronic poverty is considered the component of total0 poverty that is static and transitory poverty is the component that varies with time (Jalan and Ravallion, 1998). The isolation of the process underlying chronic and transitory poverty is considered essential in understanding the extent to which each poverty type may obscure the other or even distort the effects of government anti-poverty programmes.

In Nigeria, static measure of poverty has failed to differentiate between households who became poor as a result of adverse shocks in the year a poverty survey was carried out (transitory poor) from those households who have been poor for a long time (chronic poor) (Dang, and Dabalen, 2019). These distinctions matter because, the factors that condemn households to remain in poverty for a long time differs from those factors that randomly drag households into poverty for a brief period of time. The former group would need a long-term intervention to exit from poverty while the later would require only a

temporal intervention.

The longer households' dwell in poverty the harder it becomes for them to exit. As the standard of living in Nigeria continues to rise, one must ask; has Nigeria's poverty profile become more chronic or has it become more transitory? Although a large number of literatures on the trend of poverty in Nigeria exist, there are actually only few studies that have attempted to study the dynamic nature of poverty in Nigeria in order to ascertain if, poverty in Nigeria is mostly- chronic or transient. It is imperative to study the extent of chronic and transitory poverty in Nigeria if effective poverty policies must be implemented. This is the main motivation for the study.

The broad objective of this study is to examine the dynamic nature of poverty in Nigeria using the Nigeria general household survey data. Specifically, this study seeks to;

i. assess the level of chronic and transitory poverty in the six geo-political zones in Nigeria;
ii. examine the extent of chronic and transitory poverty in Nigeria between 2010-2020;
iii. investigate the factors influencing chronic and transitory poverty in Nigeria.

The study has five sections. Section one is the introduction, which includes background, problem statement, objectives and scope of the study. The remaining parts of the study was structured as follows; chapter two has the conceptual issues, theoretical and empirical literature on the dynamic nature of poverty and evaluation of literature reviewed. Section three discussed the methodology of the study, which include: research design, data source, and method of data analysis. Section four dealt with data presentation, analysis and interpretation and section five covered the study summary, conclusion and recommendation.

2. Literature Review

2.1. Concept of Chronic and Transitory Poverty and Measurement

Poverty is not a static phenomenon because it contains time dimensions. The concept of chronic and transitory poverty helps in understanding the dynamic nature of poverty because they provide explanation to the time dimension of poverty.

Chronic poverty

Chronic poverty is a situation in which an individual or households' per capita income or consumption expenditure has been below the poverty line for a very long time (Kaka and Launi, 2014). Chronic poverty is usually passed down from one generation to another. According to Adepoju, (2012), chronic poverty occurs when an individual or households experience deprivation for a long period probably all their life.

Transitory poverty

Transitory poverty occurs when an individual or household per capita income or consumption expenditure is below the poverty line for a short period of time. Transitory poverty is usually caused by negative shocks that temporarily affects households or an individual income making it impossible to maintain their current consumption level (Adepoju, 2012). Kruger (2018) described transitory poverty as a situation in which individuals or households slip in and out of poverty.

2.2. Theoretical Framework

The Vicious Cycle of Poverty Theory

The vicious cycle of poverty theory was propounded by Ragnar Nurkse in 1966. The theory posits that poverty breeds poverty, and its effect is transmitted from one generation to another over time. The vicious cycle has no beginning and no end (Moynihan, 1968). The theory states that, various conditions of the poor combine to make the poor remain in poverty such that, the poor are so ensnared in poverty that there is little or no chance to escape it (Ewhrudjakpor, 2008). There is both a supply and demand side to the vicious cycle of poverty. The supply side shows that, low income brings about a fall in savings and this leads to a fall in investment, which in turn leads to capital deficiency resulting in low productivity and, low productivity brings about low income and the cycle continues. On the demand side, low income brings about a fall in demand and, a fall in demand leads to a fall in investment leading to capital deficiency which brings about low productivity and this invariably leads to a fall in income.

In Nigeria, interventions from the government to break the vicious cycle of poverty has been fruitless. Such interventions have either been hijacked by government officials for selfish reasons or beneficiaries themselves misuse such inventions and end up stuck in the vicious circle of poverty. This goes to say that the poor in Nigeria are trapped in the vicious circle of poverty with little or no hope of escaping (Ewhrudjakpor, 2008). This is the culture of poverty in Nigeria and it is passed down from one generation to another.

Cultural Theory of Poverty

The cultural theory of poverty was propounded by Oscar Lewis (1968). The theory states that paupers emerge as a result of continuous retrenchments by capitalist in their attempt to maximize profit. These paupers are then grouped into classes or environment by welfare programmes set up by the government. Paupers can also be grouped into classes by individual initiatives whereby poor households seek accommodation in affordable areas or areas with large number of poor residents

in order to survive. In Nigeria, this has given rise to slumps in big cities like Lagos, Abuja, Port-Harcourt etc. The socialization of these classes or groups of paupers gives rise to new behavioral traits that enable them cope with deprivation. Lewis (1968) identified these behavioral traits to include self-doubt, low aspiration, impulsive gratification and limited time horizons. These traits combine together deepen poverty and brings about a state of total hopelessness and despair.
According to Albrecht and Albrecht (2000), these new behavioral traits that emerges as a result of socialization among poor groups or families are transmitted to children born and raised in these areas. These traits reduce the chances of such children from escaping poverty. These behavioral traits that resulted from socialization of paupers was referred to as the culture of poverty by Lewis (1968).
According to Lewis (1968), an individual or household can be poor without living in the culture of poverty because it is not based on religious or ethnic marginalization but on material deprivation. Government interventions aimed at alleviating poverty should not concentrate on getting immediate results because, the culture of poverty and its relative nature, takes a longer time to change. The Culture of poverty can be changed over time as it is seen in countries with nationalistic movement were the key behavior traits of the culture of poverty has been changed (Lewis, 1968). The culture of poverty according to Winch, (1987) can also be eliminated through change in social groupings if, poor individuals or household takes the initiative to relocate to other areas in search of better livelihood.

Neo-conservative theory of poverty

The Neo-conservative theory of poverty was built on Malthusian paradigm propounded by Robert Mathus (1976). The theory states that poverty is caused by population pressure on subsistence livelihood. Further, the theory assert that poverty is based on material deprivation. The higher the population rate accompanied with deteriorating capitalism the higher the poverty level in the country.
The neo-conservative theory according to Harvey and Reed (1992) is based on two axioms. Firstly, poverty over the years, is explained by the marginal productivity of labor, technology and land, its effect can be felt on a country's resources and its food supply in particular. Prices of commodities influences the purchasing power of individuals and through the chain of causation, this results in downsizing, which invariably leads to increased poverty (Harvey and Reed, 1922). Secondly, poverty is attributed to the inability of means of subsistence to match growing population. Unless population is checked by natural shocks the number of poor will keep on increasing. Natural shocks include plague, famine, misery and war which put a check on population. But in Nigeria, this natural shocks rarely occurs and so poverty keeps on increasing. The Neo-conservative theory of poverty posits that, poverty can be eradicated through moral education. Moral education enlightens the masses and leads to a reduction in early child marriage, sexual restrain and other practices. Poverty can also be eradicated by investing in technology to boost production of goods and services to meet the demand of the ever-increasing population (Ezeanyeji, and Ozughalu, 2014).

Individual Deficiency Theory

This theory argues that individual deficiencies is the cause of poverty. The theory is based on the assumption that, poor individuals are poor because of their bad choices and lack of hard work (Kruger, 2018). The individual deficiencies theory is rooted on the neo-classical theory of poverty that posits that households and individuals through wise investments are responsible for their actions to maximize their standard of living. The theory claims that poor households remain in poverty because they are not engaged in productive activities (Ezeanyeji and Ozughalu, 2014). Poverty according to this theory can be reduced through hard work and skills acquisition.
Relating this theory to the poverty situation in Nigeria, we can observe that poverty among households/individuals is on the rise because most individuals in the country have failed to take responsibility for their destinies and improve their living standard (Danaan, 2018). The nonchalant attitude of Nigerian youths towards vocational and technical courses, deprives them of the necessary knowledge and skills to compete favorably in the labour market thus, making them wander about in the cities and villages looking for jobs that are not available. Laziness, engagement in crimes, indiscipline, and non-enrolment in schools are all personal choices of individuals that can lead to poverty.

Progressive Social Theory

Frederick Lynch propounded the Progressive Social Theory in 1977. This theory of poverty opposes the claim of the individual deficiency theory that poor individuals are the architect of their problem rather, that social and economic distortions as well as political discrimination as the sources of poverty (Ezeanyeji and Ozughalu, 2014). The theory argues that individuals or households may acquire all the necessary skills, knowledge and altitude to compete favourably in the labour market and still be trapped in poverty no matter how hard they work. They attributed poverty to dysfunctional socioeconomic systems. The theory also attributed poverty to discrimination. They argued that individuals irrespective of their personal capabilities are discriminated based on their religion, gender, race or any other personal attribute, and this limits their opportunity of exiting poverty or not falling into poverty.
Relating this theory to the Nigeria situation, Danaan, (2018), argued that government policies in Nigeria worsens the poverty situation of the country. These policies may be formulated with good intentions, but improper implementation exacerbates poverty in the country. The Structural Adjustment Policy (SAP) for example was conceived from the good intentions of the Nigerian government to better her economy, but due to poor implementation, the fallouts from the policy worsened the poverty situation of the country. In Nigeria, it has been established that there is a strong correlation

between the level of poverty in the country and governance (Omoyibo, 2013). Poverty in Nigeria has also been worsened as a result of the un-diversified structured of the Nigerian economy which is largely dependent on crude oil revenue while, neglecting other key sectors of the economy. Also, the inability of the Nigerian government to provide the necessary economic and social infrastructures such as good roods, electricity, and security, has deteriorated living conditions in the country and exacerbated poverty (Omoyibo, 2013).

Bias discrimination on the basis of religion and ethnicity in the appointment of government officials and workers and awarding of contracts and projects by the Nigerian government has resulted in social unrest and ethno-religious conflicts, which has led to the destruction of properties and loss of lives which has invariably worsened the poverty situation in the country (Danaan, 2018).

Geographical Disparities Theory

Shaw (1996) propounded the theory, it centers on destitution from a geographical viewpoint e.g. northern poverty, ghetto destitution, rural destitution, third- world destitution etc. It calls consideration to the reality that individuals, societies and institutions in certain regions lack access to openings for wealth creation. This theory is closely connected to the economic agglomeration theory which shows how the concentration of comparative firms pulls in strong administrations and markets which further attracts more firms whereas, ruined communities create more destitution and low lodging costs in such areas attract more individuals. This sort of destitution can be tended to through community advancement in locations where destitution is severe (Bradshaw and Main, 2011). Unemployment leads to low investing, fall in consumption, low investment funds and ventures, low self-esteem, weak inspiration and discouragement etc. One issue leads to numerous issues and creates destitution (Danaan, 2018).

This theory is appropriate within the Nigerian setting where destitution is predominant in a few topographical areas such as rural areas, ghettos and regions inclined to natural catastrophes such as surges, desert encroachment and draught (Ezeanyeji, and Ozughalu, 2014). The level of economic activities in these areas are slow and this leads to increased rates of unemployment and poverty. The inability of successive Nigerian governments, to provide the necessary empowerment opportunities and social amenities for rural dwellers have worsened the disparity between the urban dwellers and rural dwellers resulting in rural-urban migration. Destitution is still on the increase because the governments and communities have not harnessed the resources and openings within the impoverished regions to progress the prosperity of the populaces. And so, food shortages, fuel crisis, power shortage, housing crisis and other deprivation lingers on in a country well-endowed with tremendous and abundant arable land, mineral resources, waterways, waterfalls, and other assets that could abdicate colossal benefits, in the event that they are legitimately utilized. Populaces in impeded regions live in sub-human conditions and are harrowed with destitution and with no hope of exiting it (Danaan, 2018).

2.3. Empirical Literature

Nigeria uses a static poverty measures based on cross sectional data to identify who is poor. According to Dang and Dabalen (2019), static poverty measures fail to differentiate between people who happen to have had a small misfortune (e.g. losing their jobs or suffering from illness) in the year the measurement was carried out and those who have been living in poverty all their lives. Unlike the static measurement of poverty that is only concerned with the number of people in poverty at a point in time, Dynamic analysis or measurement of poverty goes beyond that to reveal how people transient into and out of poverty as well remain in it over time. Dynamic measurement of poverty illuminates the proportion of a population that suffers from chronic and transitory poverty. According to literature, the dynamics of poverty can be analyzed using two primary approaches (Dapel, 2018). The first approach is the Component approach and the second is the spell approach.

The component approach decomposes poverty into chronic and transient poverty. Chronic poverty under this approach refers to households or individuals, whose time-mean consumption is below the computed poverty line over the periods being studied. The household's time-mean consumption is computed by finding the average consumption or income of the households over time. The component approach takes into consideration income variability around fixed incomes and also poverty lines when households are poor over the sampled time period. Households are said to be transitorily poor, when there is variability in the household's welfare indicator be it consumption or income (Jalan and Ravallion, 1998). This approach does not measure transitory poverty as simply crossing the poverty line compared to the Spell approach.

The spell approach of measuring poverty dynamics simply focuses on the movement of the households' income or consumption around the poverty line. This approach identifies chronically poor households as those whose income or consumption falls below the poverty line over the sampled period being studied and transient poverty as, those whose income or consumption falls below the poverty line in some periods and above the poverty line in other periods (Dapel, 2018).

Literatures on the dynamic nature of poverty dates back to 1983 when Bane and Ellwood (1983), in their study, slipping into and out of poverty, investigated the dynamic nature of poverty in the United States of America using panel data from the panel study of income dynamics (PSID). They argued that defining spells of poverty gives a better understanding of poverty dynamics. Exit probabilities was used to analyze the panel data collected and their findings showed that, a fall in household income explained only a minority of cases why people fall into poverty. They also revealed that family structure and life cycles are the major causes of household poverty. Further, they found that a large number of poor households

experience long spells of poverty.

Bigsten and Shimeles (2004) investigated the dynamics of poverty in Ethiopia using panel data. They adopted the component and spell approach in their analysis so as to be able to differentiate the chronically poor from the transitorily poor. Results from their analysis revealed that majority of the households dwelling in rural areas were transitorily poor. Also, dependency ratio and age of the household head were discovered to influence the odds of being poor. This finding was similar to that of Baulch and Hoddinott (2000), who carried out similar research in 10 developing countries. Their findings show that poverty in developing countries was more transitory than chronic.

Similarly, Nega, et al. (2010) investigated poverty dynamics in Ethiopia using panel data collected from households in the rural areas of Tigray, Ethiopia. In their study, they attempted to analyze the effectiveness of two poverty intervention programs (namely; food security package and food-for-work) in reducing poverty in the region. Results revealed that poor households in Tigray where mostly chronically poor and, the food security package intervention program was effective in tackling chronic poverty in the region but less effective on transitory poverty. The food for work intervention program on the other hand was ineffective in tackling both chronic and transitory poverty in the study area. In an earlier study, Iyaschenko and Mete (2008), using a panel data analysis discovered that the rate at which households in rural Tajikistan entered and exited poverty was alarming and the factors influencing their entry and exit from poverty differed significantly.

In Nigeria, there are only a hand full of studies that have attempted to investigate the dynamic nature of poverty in the country. One of such studies include the work of Adepoju (2012), who, using panel data, investigated poverty transition in South-West Nigeria. The data collected was analyzed using logit regression and the results revealed that, 22.3% of the households in South-West Nigeria were transitorily poor, while 28.2% where chronically poor and 49.5% where not poor. Out of the 22.3% transitorily poor households, 15.5% moved into chronic poverty while 6.8% exited poverty. Based on the findings, it was concluded that chronic poverty was prevalent in Nigeria. The study recommended a mixed poverty reduction policy,that will take into account both the transitory and chronically poor households in the country.

In 2011, Ribas, Machado, and Golgher studied the persistence and fluctuations in poverty using pseudo-panel data collected from the Brazil National Households Sample Survey. Poverty in their study was decomposed into chronic and transient poverty using the spell approach. The data collected were analyzed using Probit regression, Results revealed that, 69% of the poverty level in Urban areas of Brazil was chronic in nature while 31% was transitory. The study further revealed that education and race were major factors influencing chronic poverty in the country while gender was discovered to significantly influence transient poverty.

Khanal (2013), examined the nature of transitory and chronic poverty in Nepal using longitudinal data. The panel data used in the study was collected from the 1995/96 and 2003/04 Nepal Living Standard Survey (NLSS). The data collected was analyzed using the component approach and results from the analysis showed that, 88% of poor households, suffer from chronic poverty while 22% of the remaining poor households suffered from transitory poverty. This implied that chronic poverty in Nepal was larger than transitory poverty. The study concluded that the Nepal government should focus more on formulation of policies to tackle chronic poverty in the region.

In an earlier study, Finn, Leibbrandt and Woolard (2013) investigated poverty transition in South Africa using a transition matrix to analyze the panel data collected from three waves of the National Income Dynamic Survey. Their study showed that despite large numbers of households being able to exit poverty, majority of the poor households were still suffering from chronic poverty.

In the same vein, Finn, Leibbrandt, and Levinsohn (2014) also investigated the dynamic nature of poverty in South Africa using panel data collected from the 2008 and 2010 National Income Dynamic Survey. They discovered that, poverty level in South African fell from 52.8% in 2008 to 49.7% in 2010. In order to illuminate poverty transition among households, the study also employed a transition matrix. Households were split into four categories. Category one comprised the extremely poor households, category two comprised moderately poor households and category three and four comprised non-poor households but, category three households are closer to the moderately poor household income threshold. The findings from the transition matrix revealed that, 70% of the poor households in category one in 2008 remained in the same category in 2010 while two-third of the remaining 30% of the poor households in category one moved to category two in 2010. Further, 42% of the poor households in category two in 2008 fell deeper into poverty by moving to category one in 2010 as opposed 26% who were able to exit poverty by moving into category three and four. Also, about 22% of households in category three moved into category four as their per capita household income increased. And finally, about 75% of households in category four remained in this same category.

In more recent studies, Goncalves and Machado (2015), examined the dynamic nature of poverty in Brazil using longitudinal micro-data collected from the Brazil Monthly Job survey for the period 2002-2011. The data collected was analyzed using multinomial logit regression model and results showed that chronic poverty was predominant in the North East region of Brazil and households with educated members holding at least a secondary school certificate, have a higher probability of exiting poverty or not even entering it at all. The results also revealed that, households headed by female and non-whites had a high probability of suffering from chronic poverty.

In the same year, Goncalves (2015) still in Brazil carried out another research to ascertain the probability of households entering poverty in the future. The study was focused on the vulnerability of households to poverty. The study collected data from the Monthly Job Survey of the Brazilian Institute of Statistic. The results from the analysis carried out revealed that 77% of vulnerable households were chronically poor. Also, the study revealed that households headed by an educated male, who was well integrated into the formal labour sector, had a high probability of not falling into poverty in the next

year(future) compared to households headed by a female with low education and integrated in the informal sector. The study recommended that the government of Brazil should make policies that encourage formal education and professional qualification especially among females as this will help reduce the vulnerability of families to poverty.

Rogan (2016) employed data from the 2008 National Income Dynamic Survey to examine the gender poverty gap among households in South Africa. The data collected was analyzed using the multidimensional and income-based approach and results from the analysis showed that, although there is a general decline in poverty level, female headed households and women in general were found to be poorer than their male counterparts. Burger, Van der Berg, Van Der Walt, and Yu, (2017) carried out a similar study still in South Africa using Total Fuzzy and Relative approach and their result was similar to that of Rogan (2016).

Omotoso and Koch (2018) and Mushongera, Zikhali, and Ngwenya, (2017) both carried out similar research in South Africa using data from the General Household Survey of 2002 and 2014. They both examined multidimensional poverty using the multidimensional poverty index (MPI) and their results showed that poverty among households was on the increase.

In a recent study of poverty dynamics in Nigeria, Danpel (2018) argued that static poverty measures were ineffective in studying poverty in Nigeria. In an attempt to prove his statement, he used cross sectional data collected from six sets of household surveys in Nigeria spanning from 1980-2010. The study adopted both the spell and component approach to decompose poverty into its chronic and transitory components. Results from his analysis showed that 21.94% to 32.27% of households in Nigeria moved into poverty between 1980 and 1985 and about 0.11% to 9.5% of households within this same period moved out of poverty. The result further showed that between 1996 and 2010, the level of chronic and transitory poverty was higher compared to previous years (1980-1992). Although transitory poverty grew faster than chronic poverty. Chronic poverty was prevalent in the north-eastern region of Nigeria compared to the south-south region. The study suggested different policy measures for the North-east and South-south region of Nigeria to tackle poverty.

Also, Ogebe and Adeniran, (2019) investigated the dynamics of poverty in Nigeria using panel data from the 2011 and 2016 Multiple Indicator Cluster Survey dataset. The Multidimensional Poverty Index (MPI) was used to ascertain the dynamics of multidimensional poverty in Nigeria and the results revealed that, national poverty in 2011 increased from 16.2% to 22.2% in 2016. The study also revealed that households headed by females, was discovered to be poorer than households headed by their male counterpart. Also, in their disaggregate analysis of poverty, their results also showed that Northern Nigeria had the highest concentration of chronically poor households, especially the North- Eastern region compared to the Southern region of Nigeria. The study recommended that poverty alleviation policies should be targeted at poor households in the rural parts of the country especially, in the Northern region of the country.

Kudebayeva, (2018) analyzed chronic poverty and poverty transitions in Kazakhstan using panel data collected from the country's General Household Budget Survey for the period 2001-2009. The study adopted both the component and spell approach in decomposing poverty into chronic and transitory. The study also employed the Multivariate Hazard regression to analyze the panel data collected and the results revealed that, poverty in Kazakhstan is more transitory than chronic. Their result also revealed that households with children below six years had a lower probability of exiting poverty and higher probability of entering poverty. The study recommended that the government of Kazakhstan should make provision for affordable child care in the state as this will help in checking poverty.

Also, in a more recent study conducted by Dang and Dabalen (2019), poverty dynamics in sub-Saharan Africa countries was examined using panel data from 21 countries. Results from the panel regression showed that one-third of the poor households in these countries exited poverty but still, chronic poverty was still high among most of the countries under study.

Albuquerque and Goncalves (2020), investigated the dynamic nature of poverty in Brazil using panel data from the Brazil National Continuous Household Survey. Poverty was categorized into chronic and transitory and, the data collected was analyzed using multinomial logit regression model. The result from their analyses revealed that, households living in the rural parts of Brazil as well as the North-Eastern region of the country, have a high probability of being either transitorily or chronically poor. The probability of being chronically poor was higher. The study further revealed that households with large family size, and less educated family members have higher probability of being transitorily or chronically poor.

2.4. Evaluation of Literature Reviewed

From the literatures reviewed above, it can be seen that the Foster-Greer-Thorbecke (FGT) poverty measure was adopted by most authors to measure poverty and poverty was decomposed using the component or spell approach. In studying the determinants of transitory and chronic poverty, various authors adopted different econometric tools such as; quantile regression, Tobit regression, probit and multinomial logit regression in their respective studies. For this study, poverty will be decomposed into its transitory and chronic components, using the spell approach and the determinants of transitory and chronic poverty will be analyzed using multinomial logit regression.

In Nigeria, despite the high level of poverty ravaging the country, there are few studies on poverty dynamics in the country. This may be attributed to nature of data required to analyze poverty dynamics. In Africa, only a few number of countries such as; Kenya, South Africa, Zimbabwe, Ghana, Egypt, Ethiopia and Uganda have a well-structured household panel data suitable to properly analyze the dynamics of poverty. Therefore, this study will be a significant addition to the body of knowledge on the dynamic nature of poverty in Nigeria and Africa at large.

3. Research Methodology

3.1. Research design

The study used an ex-post facto research approach to assess the dynamic nature of poverty from 2010 to 2020. This research design was chosen because the data in this study was derived from secondary sources and was not modified. The focus of the study was on the dynamic nature of poverty, the analysis in the study was limited to the panel data aspect of the GHS and a Spell approach was employed to decompose poverty into chronic and transitory while a logit model was formulated to assess the determinant of chronic and transitory poverty in Nigeria over the period under study.

3.2. Data and Sources

The study made use of panel data collected from 4,557 households across the 774 local government areas in Nigeria. The data was gotten from the post-harvest wave 1 (2010-11), wave 2 (2012-13), Wave 3 (2016-2017) and wave 4 (2019-2020) dataset of the Nigeria General Household Survey (GHS). The General Household Survey Panel data is Nigeria's first of its kind, carried out by the Nigeria Bureau of Statistic (NBS) in collaboration with the World Bank. GHS comprise both a panel data survey and a cross-sectional survey. The panel data survey covers five thousand households while the cross-sectional aspect covers twenty-two thousand households. The panel survey is carried out biennially. This study covers the six geo-political zones in Nigeria. namely:

North-Central- Benue, FCT, Kogi, Nasarawa, Niger and Plateau
North-West: Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto and Zamfara
North-East: Adamawa, Bauchi, Borno, Gombe, Taraba and Yobe
South-West: Ekiti, Ogun, Ondo, Osun, and Oyo
South-East: Abia, Anambra, Ebonyi, Enugu and Imo
South- South: Akwa Ibom, Bayelsa, Cross River, Delta, Edo and Rivers

3.3. Definition of the variables and theoretical expectations

3.3 Model Specification

The analysis of household poverty dynamics is usually based on models that assess the risk of a household or an individual remaining poor for a given period of time (Devicienti, 2000). However, those models are not suitable for analysis of poverty dynamics between two points in time. Movements in and out of poverty in Nigeria between 2010-2011 and 2016-17 must therefore be modelled instead of using discrete outcome models. We estimate a multinomial logit model of poverty dynamics for Nigeria.

Multinomial logit regression is used to predict categorical placement in or the probability of category membership on a dependent variable based on multiple independent variables (Starkweather and Moske, 2011). The independent variables can be either dichotomous (i.e., binary) or continuous (i.e., interval or ratio in scale). Multinomial logistic regression is a simple extension of binary logistic regression that allows for more than two categories of the dependent or outcome variable. Like binary logit regression, multinomial logit regression uses maximum likelihood estimation to evaluate the probability of categorical membership (Starkweather and Moske, 2011).

The Multinomial Logit Regression was adopted in this study because our dependent variable for the study was a categorical variable with three different categories and these categories are not in any specific order. Multinomial logit regression is often considered an attractive analysis because; it does not assume normality, linearity, or homoscedasticity. A more powerful alternative to multinomial logit regression is discriminant function analysis which requires that these assumptions are met. Indeed, multinomial logit regression is used more frequently than discriminant function. The multinomial logit model (following Gaiha et al., 2007; Bigsten and Shimeles, 2004; Bhatta and Sharma, 2006) was used to analyze the shift of poverty status between the period under study. The logit model for this study is specified as:

The relative probability of Yi = j in relation to the base category Y = 0 is given by the odds ratio.

$$\Pr(Y_i = j) = \frac{e^{X_{ij}\lambda + \tau V\hat{E}P_{ijt-1}}}{\sum_{k=0}^{3} e^{X_{ij}\lambda + \tau V\hat{E}P_{ijt-1}}}, \text{ j = 0,1,2,3} \quad \ldots\ldots\ldots\ldots\ldots\ldots\text{Equation 1}$$

The parameter estimates measure the effect of a unit increase in the relevant explanatory variable on the log odds ratio of the particular state in relation to the base line category The MNL model is explicitly expressed as

$Y_1 = \alpha_1 + \beta_{11}X_1 + \beta_{21}X_2 + \ldots\ldots\ldots\beta_n X_n + \epsilon_i$ ……..Equation 2
$Y_2 = \alpha_2 + \beta_{12}X_1 + \beta_{22}X_2 + \ldots\ldots\ldots\beta_n X_n + \epsilon_i$ …….. Equation 3
$Y_3 = \alpha_3 + \beta_{13}X_1 + \beta_{23}X_2 + \ldots\ldots\ldots\beta_n X_n + \epsilon_i$ …….. Equation 4
$Y_0 = \alpha_0 + \beta_{10}X_1 + \beta_{20}X_2 + \ldots\ldots\ldots\beta_n X_n + \epsilon_i$ …….. Equation 5

Where Y_i represents 4 unordered categories of poverty transition:
Y_1 = those who were poor in all waves (i.e., chronically poor)
Y_2 = those who were poor in the first wave, but non-poor in the other waves (i.e., transitory poor)
Y_3 = those who were non-poor in the first wave, but poor in other wavs (i.e., transitory poor)

Y_0 = those who were non-poor in all waves (i.e., always non-poor) (which is the reference case where it was assumed that $\lambda_0 = \tau_0 = 0$. Hence, the results for the base will not appear).
X_1 -X_n represent vector of the explanatory variables where n = 1 …12
B_1 – B_{12} represent the parameter coefficients.
ϵ_i = represents the independently distributed error terms.
$\propto_0$ – $\propto_3$ shows the intercept or constant terms.
To measure the promotional and protective effects, following Greene (2000), equation (1) was normalized by setting.

$$\Pr(Y_i = j) = \frac{e^{(X_i\lambda_j)}}{1+\sum_{k=1}^{3} e^{X_i\lambda_k+\tau_k V\hat{E}P_i}}, \text{ j=0, 1, 2, 3} \quad \text{……Equation 6}$$

$$\Pr(Y_i = 0) = \frac{e^{(X_i\lambda_j)}}{1+\sum_{k=1}^{3} e^{X_i\lambda_k+\tau_k V\hat{E}P_i}}, \text{ j= 0} \quad \text{…..……Equation 7}$$

Probabilities for four different choices were then obtained from equations (6) and (7). Upon normalization, the 'protective effect' (i.e., the effect of preventing the non-poor from falling into poverty), and the 'promotional effect' (i.e., the effect associated with helping the poor escape poverty in a dynamic framework) were then identified. Chi-square (X^2) distributions and log –likelihood function was used to test the goodness of fit of the overall model.

3.4. Analytical Model

for the econometrics analysis, a multinomial logit regression model was estimated to capture the determinants of chronic and transitory poverty in Nigeria. A multinomial logit regression model was estimated based on method one (differentiating poor households), as the three poverty groups in this method involves ordinal ranking. The multinomial logit regression enables the study to ascertain the various factors (explanatory variables) that exact a statistically significant influence on chronic and transitory poverty among households. In this case, it is utilized to anticipate the destitution status of people over time based on their individual characteristics (such as the gender, literacy level, age, and employment status of the household head), household characteristics (such as family size, number employed and social grants receivers in the household, land and livestock ownership, farm status, and electricity connection) and community characteristics (such as area of residence i.e., urban or rural area). Based on method one of identifying poor households as discussed above, our dependent variable was coded as (1) Chronic poor; (2) transitory poor: (3) Non-poor. The last category of households that were non-poor in 2010-11, 2012-13 and 2016-17, are the reference category in the multinomial logit model.
Our logit model is thus specified as:

$$L_n = In(\frac{P}{1-P}) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots\ldots\ldots\beta_n X_n + \epsilon_i \quad \text{…..……Equation 8}$$

$$L_n = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + +\beta_3 X_3 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12} + \epsilon_i \text{…..……Equation 9}$$

Where:
X_1 is household size, X_2 is age of the head of household, X_3 is sex of the household head, X_4 is area of residence, X_5 is availability of potable water, X_6 is access to electricity, X_7 is household access to remittance, X_8 is land size, X_9 is access to credit, $X_{10}$is household head employed in the formal sector, X_{11} is education level of the household head, and X_{12} occupation of the household head.

3.5. Methods of Analysis

The study used quantitative and descriptive analytical tools in analyzing the GHS-panel data collected for the study. Objective one and two were measured using descriptive tools like mean, frequencies, percentages and tables. Objective three was measured using multinomial logit. According to Lipton and Ravallion, (1995), consumption measure of poverty is more stable than income-based measure of poverty. They argued that income of households fluctuates more than their consumption and that consumption captures the household's strength to pull resources during economic stress. In this study, total household consumption expenditure per capita was used as a proxy for per capita income in calculating the poverty line for the study. The study made use of a relative poverty line which was calculated using the mean per capita household consumption expenditures (MPCHCE) from the GHS data (per capita consumption expenditure divided by the total number of households).
Those whose per capita household consumption expenditure were greater than two-thirds of the MPCHCE were classified as not poor while those whose per capita household consumption expenditure were less than two-third of the MPCHCE were classified as poor.
Given the poverty line, the poverty status of households in wave 1 (2010-11), wave 2 (2012-13) and Wave 3 (2016-2017) of the GHS-panel data was used in operationalizing the concepts of transitory and chronic poverty. A common approach of decomposing poverty into its chronic and transitory component is known as the component approach; it uses inter-temporal mean of consumption in decomposing poverty into chronic and transitory. This approach is not best for our study because according to Mckay and Lawson (2003), inter-temporal mean of consumption cannot be computed

appropriately using three waves of panel data. Hence, the spell approach was adopted in decomposing total poverty into chronic and transitory poverty for this study. This approach states that households whose per capita consumption expenditure is below the poverty line in all waves is chronically poor while those whose per capita consumption expenditure is below the poverty line in one or two waves alone is transitorily poor. Changes in the status of households' poverty was analyzed by categorizing households from the panel aspect of GHS into three groups namely non-poor, chronically poor and transitorily poor. The dynamic nature of household poverty is influenced by a number of factors ranging from economic shocks, physical environment, societal trend and even the household characteristics itself. To begin with, the extent of transitory and chronic poverty in Nigeria was analyzed using descriptive statistics. At that point, the multinomial logit regression was utilized to determine the socio-economic factors influencing the changes in the poverty status of households in Nigeria.

Identification of different poor households

Various scholars (e.g. Arif and Bilquees, 2007; Baulch and McCulloch, 1999; and Khanal, 2013), used a single approach in differentiating households or individuals that are poor. This study identifies chronically, transitory and non-poor households using two different methods. Nevertheless, the first method was the main focus of the study.

Method one

1) **Chronic poor**: This category of households refers to those whose per capita consumption expenditure falls below the poverty line in Wave 1, Wave 2 and Wave 3 of our GHS;
2) **Transitory poor**: This category of households refers to those whose per capita consumption expenditure falls below the poverty line in either Wave 1, Wave 2 or Wave 3 of our GHS;
3) **Non-poor**: This category of households refers to those whose per capita consumption expenditure is above the poverty line in Wave 1, Wave 2 and Wave 3 of our GHS;

Method two

1) Chronic poor: This category of households refers to those identified as poor in all waves.
2) Poverty entry: This category of households refers to those whose per capita consumption expenditure is above the poverty line in Wave 1 but falls below the poverty line in Wave 2 or Wave 3.
3) Poverty exit: This category of households refers to those whose per capita consumption expenditure is below the poverty line in Wave 1 but above the poverty line in Wave 2 or Wave 3
4) Non-poor: This category of households refers to those whose per capita consumption expenditure is above the poverty line in all Waves.

4. Results presentation and analysis

4.1. Descriptive analysis

Socio-economic characteristics of households have been identified as a key factor affecting their poverty. The socio-economic and demographic characteristics of the sample respondents in this study were gauged with respect to sex, age bracket, level of education, their primary occupation, employment status of the head of the households and the area of residence. The results are shown below:

Gender of the head of the household

The study started by computing the sex distribution of the head of households for the sample respondents. Table 1 presents the sex distribution of household heads.

Table 1: Sex distribution of Household heads

Sex	Frequency	Percentage	Cumulative
Female	920	20.19	20.19
Male	3,637	79.81	100
Total	4,557	100.00	

Source: Author's computation from NGHS

Table 1 shows that the number of households headed by a male is far higher than the number headed by females. From the total sample of 4,557 households, 3,637 (79.81%) of the households were headed by a male while the remaining 920(20.19%) were headed by females. This implies that sampled population had more males than females.

Age bracket of the household heads

Table 2: Age bracket of Household heads

Age of HH heads in years	Frequency	Percentage	Cumulative
20 - 29	133	2.92	2.92
30 - 39	878	19.27	22.19
40- 49	964	21.15	43.34
50- 59	1,183	25.96	69.30
60 years and above	1,399	30.70	100.00
Total	**4,557**	**100**	

Source: Author's computation from NGHS

From Table 2, the number of household heads within the age of 60years and above, are greater than other age categories. This could mean that the household heads were old, and not in their active and productive age. Most of them were senior citizens. 30.70% of household heads fell under this age category. The second age category with highest number of household head (25.96%) were those between the age of 50 and 59years. Young household heads between the age of 20 and 29 years were the smallest amounting to only 2.92% of the total household heads. 21.55% of the total household heads fell within the age bracket of 40 and 49 years and the remaining 19.27% fell under the age bracket of 30-39 years.

Educational level of the household heads

Education goes a long way in influencing the poverty status of households. Table 3 showed that most of the household's heads (19.18%) had only primary school education. A number of other household heads (14.77%), had no form of formal education.

Table 3: Highest Education level attained

Educational level of HH heads	Frequency	Percentage
None	673	14.77
Primary	874	19.18
Secondary	852	18.70
Diploma	290	6.36
NCE	255	5.60
Bachelor	395	8.67
Post Graduate	181	3.97
Adult Education	117	2.57
Quranic Education	739	16.22
Teacher Training	64	1.40
Vocational/ Technical	177	2.57
Total	**4,557**	**100.00**

Source: Author's computation from NGHS

Table 3 further shows that only 8.67% of the household heads have a bachelor degree and 3.97% a post graduate degree. A large number of the household heads (18.70%) had only secondary school education and 16.22% attended only a quranic education. The rest of the households had attended one form of formal education or training as represented in Table 3. The results showed that the majority of the household heads had Primary, quranic, and secondary education. Lack of quality and/or higher education could deprive household head of higher income earning and also generating opportunities that could take them out of poverty.

Primary occupation of household heads

Table 4. Primary Occupation

Occupation	Frequency	Percent
Agriculture	2,305	50.58
Buying and selling	850	18.65
Construction	189	4.15
Education	185	4.06
Electricity/water/gas/waste	12	0.26
Financial/insurance/real estate service	34	0.75
Health	56	1.23
Manufacturing	292	6.41
Mining	4	0.09

Personal services	287	6.3
Professional/scientific/technical activ	66	1.45
Public administration	129	2.83
Transportation	103	2.26
Other specify	45	0.99
Total	**4,557**	**100**

Source: Author's computation from NGHS

From table 4, we can see that majority (50.58) of the household heads were engaged in agriculture as their primary occupation, while 18.65% were engaged in buying and selling as their primary occupation. This implies that a large number of the household heads were engaged in the informal sector. About 6.41% household heads were engaged in manufacturing and 4.06% in education. 6.30% render personal services and about 2.83% were public administrators. Table 5.4 reviewed that household head were more engaged in the informal sector than the formal sector. This is a clear picture of the Nigeria situation were the informal sector is larger than the formal sector.

Household heads employed in the formal sector

Table 5: employment status of household heads

Employed in the Sector	Freq.	Percentage	Cum.
No	2.840	62.32	62.32
Yes	1,717	37.68	100.00
Total	4,557	100.00	

Source: Author's computation from NGHS

From table 45, it shows that 62.32% of the household heads were not employed in the formal sector. About 37.68% were gainfully employed in the formal sector of the Nigerian economy.

This goes to show that in Nigeria, majority of the household heads are employed in the informal sector of the country, in this sector, the income may not be regular, hence most household are struggling to break out of poverty.

Household area of residence

Many scholars have argued that poverty in any country is more prevalent in the rural areas of the country. Households dwelling in urban areas have more opportunities of exiting poverty or not even falling into poverty compared to their counterparts dwelling in rural areas.

Table 6: Household area of residence

Residential area of hh	**Freq.**	**Percentage**	**Cum.**
Rural	3,193	70.07	70.07
Urban	1,364	29.93	100.00
Total	**4,447**	**100.00**	

Source: Author's computation from NGHS

From table 6, we can observe that majority of our sampled households (70.07%) dwell in rural area of Nigeria while the remaining 29.93% dwell in urban areas of the country. There is every possibility that the households in the rural areas lack basic amenities that be used for income generation to bring them out of poverty.

4.2. Poverty Headcount

The mean per capita household consumption expenditure for wave 1, wave 2 and wave 3 from the GHS-panel were ₦109,863, ₦125,137 and ₦153,547 respectively from where poverty line of ₦73,242, ₦83,425 and ₦102,365 equivalent to two-third of the mean per capita household consumption expenditure (MPCHCE) were computed respectively. The study went further to compute the poverty headcount ratio for each wave. The percentage of households whose MPCHCE fell below the relative poverty line for each wave (known as the poor households) where presented in table 7, 8 and 9.

Table 7: Poverty headcount for wave one

Poverty 1	Freq.	Percentage	Cum.
Non-poor	2,444	53.63	53.63
Poor	2,113	46.67	100.00
Total	4,557	100.00	

Source: Author's computation from NGHS

Table 8: Poverty headcount for wave two

Poverty 2	Freq.	Percentage	Cum.
Non-poor	2,141	46.98	46.98
Poor	2,416	53.02	100.00
Total	4,557	100.00	

Source: Author's computation from NGHS

Table 9: Poverty headcount for wave three

Poverty 3	Freq.	Percentage	Cum.
Non-poor	2,330	51.13	51.13
Poor	2,337	48.87	100.00
Total	4,557	100.00	

Source: Author's computation from NGHS

From our results in Table 7, 8 and 9, we observed that 46.4% of our total population were living below the poverty line in wave one. This figure increased to 53.02% in the second wave and fell slightly to 48.9% in wave three. This result gave a static view of poverty in Nigeria by looking at poverty levels at a specific point in time which fails to bring to the fore the dynamic nature of poverty. So, the study went further to decompose poverty into chronic and transitory poverty, in order to capture the dynamic nature of poverty in Nigeria.

4.3. Poverty Decomposition

Using the spell approach, poverty in Nigeria was decomposed into chronic and transitory poverty. From our result in Table 10, we discovered that 36.76% of the total households in Nigeria suffered from chronic poverty while 28.37% suffered from transitory poverty. From the statistics, it is obvious that Nigeria suffered more from chronic poverty compared to transient poverty.

Table 10: poverty decomposition (spell approach)

Poverty Decomposition	Frequency	Percentage	Cum.
Chronic	1,675	36.36	36.76
Non-Poor	1,589	34.87	71.63
Transitory	1,293	28.37	100.00
Total	4,557	100.00	

Source: Author's computation (Stata12)

To further understand the extent of poverty in Nigeria, the poverty spell in the various geo-political zone was analyzed. From table 11, it is observed that chronic poverty is prevalent in the Northern region of Nigeria compared to the southern region. In the North-Central region of Nigeria 37.2 household suffered from chronic poverty while 29.8% suffered from transitory poverty. In the North-East region of the country, 57.7% of households were found to be chronically poor while 25.1% were found to be transitorily poor. Further, 63.2% of households in the North-West region of the country were found to be chronically poor and 25.8% to be transitorily poor.

Table 11: Distribution of transitory and chronically poor household by geographical zones

		poverty decomposition			Total
		Chronic poverty	Transitory poverty	Non-poor	
Zone	1. North Central	37.2%	29.8%	33.0%	100.0%
	2. North East	57.7%	25.1%	17.2%	100.0%
	3. North West	63.2%	25.8%	11.0%	100.0%
	4. South East	25.3%	29.0%	45.7%	100.0%
	5. South South	15.0%	28.7%	56.3%	100.0%
	6. South West	16.3%	32.6%	51.1%	100.0%
Total		36.8%	28.4%	34.9%	100.0%

Source: Author's computation from NGHS-panel data wave2 and wave3

The North-East and North-West regions seems to have the highest level of chronically poor households in Nigeria with the North-West being the highest with 63.2% of chronically poor households. This can be attributed to high rate of insurgency in this area and the fact that the region is predominantly dependent on subsistence agriculture for livelihood. Banditry in the North-West and Boko Haram in North-Eastern region in Nigeria have crippled the economy of these regions, riddling it with chronically poor households. South-West seems to have one of the lowest numbers of chronically poor households (16.3%) in Nigeria, which is second only to South-South. This is not surprising because states (e.g. Lagos

state, Ogun state, Oyo state etc) in the southwest region of the country has been described as the industrial hub of the country with access to basic amenities, employment opportunities, industries, services and better living conditions compared to other regions. Poverty in the South-West region is mostly transient than chronic. The South-West region has the highest number of transitorily poor households in Nigeria (32.6%). The South-South region is the region in Nigeria with the lowest numbers of chronically poor households in the country (15%). This region is the oil hub of the country so it is not surprising that it has the lowest number of chronically poor households. The states in these regions have access to basic facilities and better living conditions compared to the Northern region. The South-East region also has a low number of chronically poor households as only 25.3% of the poor households are chronically poor in this region. Poverty in southern region Nigeria is mostly transient (29%) in natured compared to the Northern region which suffer from mostly chronic poverty. Further, the study also looked at the poverty status of those households dwelling in rural areas compared to those dwelling in urban areas.

Table 12: Distribution of transitory and chronically poor household by area of residence

		poverty decomposition			Total
		Chronic poverty	Transitory poverty	Non-poor	
Area of residence	Rural	45.3%	29.0%	25.7%	100.0%
	Urban	16.9%	26.9%	56.2%	100.0%
Total		36.8%	28.4%	34.9%	100.0%

Source: Author's computation (Stata12)

From our results in table 12, 45.3% of the total households in rural Nigeria, suffered from chronic poverty while 29% of them suffered from transitory poverty and the remaining 25.7% do not suffer from poverty. But in urban areas, only 16.9% of the total households dwelling in this area suffers from chronic poverty while 26.9% suffer from transitory poverty and the remaining 56.2% were non-poor. This implies that households dwelling in rural areas of the country suffer more from chronic poverty than those in urban areas.

4.4. Multinomial Logit regression analysis

The multinomial logit regression analysis was the econometrics analysis adopted for the study to provide answers to the research questions in the study. The multinomial logit regression analysis was used to analyze the factors influencing chronic and transitory poverty in Nigeria. The overall logit regression result is robust and statistically significant since our Chi2 (66) of 1817.19 is statistically significant at 5% level of significance with a Prob > Chi2 value of 0.0000. The logit model also explains 18% of the variations in chronic and transitory poverty status of households given the Pseudo R. Squared value of 0.1821. The factors influencing chronic and transient poverty were interpreted in terms of the odds ratio of all other response categories relative to the base category. The base category in this case is the non-poor households. The results also present the odds ratios associated with the different explanatory variables

Table 13: Multinomial Logit regression model

Variable	Chronic poverty				Transitory poverty			
	Odds ratio	Coef.	z-value	p>/z/	Odds ratio	Coef.	z-value	p>/z/
Hhsize	1.497	0.4036	22.79***	0.000	1.22	0.1994	12.05***	0.000
Age	0.998	-0.0013	-0.45	0.656	1	0.0001	0.07	0.947
Sex								
Male	0.888	-0.1184	-1.07	0.287	0.929	-0.0736	-0.73	0.464
Area of residence								
Urban	0.3055	-1.1858	-11.01***	0.000	0.51	-0.6724	-7.67***	0.000
potable water	0.999	-0.0004	-8.27***	0.000	0.999	-0.0001	-6.20***	0.000
Electricity	0.999	-0.0003	-10.44***	0.000	0.999	-0.0008	-5.82***	0.000
Access to remittance	2.23	0.8041	1.37	0.17	1.006	0.0069	1.27	0.204
Land size	0.9045	-0.1004	-0.22	0.823	0.634	-0.4552	-0.99	0.320
Access to credit	0.442	-0.8168	-2.99***	0.003	0.779	-0.2495	-0.93	0.351
Hhh employed in the formal sector	1.133	0.1249	1.21	0.226	1.035	0.0347	0.37	0.714
Education								
Primary	0.952	-0.0469	-0.31	0.753	1.016	0.01581	0.11	0.909
Secondary	0.792	-0.2336	-1.55	0.121	0.99	-0.0079	-0.06	0.954
Bachelor	0.762	-0.2717	-1.50	0.133	0.680	-0.3854	-2.21***	0.027
Post graduate	0.810	-0.2103	-0.87	0.386	0.951	-0.0498	-0.22	0.823

Source: authors computation (Stata12)

**** Significant at 5%. Log likelihood = -4080.95. Observations = 4557. Pseudo R. Squared = 0.1821. LR Chi2 (66) = 1817.19. Prob > Chi2 = 0.0000. Dependent variable: poverty status (1=chronic poor, 2=transitory poor, 3=nonpoor), with base category poverty status=3. Base categories: Sex-female; Area-rural; Education-none.*

4.5. Discussion of findings

Table 13, shows that household size, area of residence, access to electricity, access to potable water, and access to credit are the major factors influencing chronic poverty in the study area. The age of the household head, sex of the household head, area of residence, access to electricity, potable water and credit, land size and educational qualification of the household head reduces the likelihood of chronic poverty among households in Nigeria. While household size, access to remittance and household head employed in the formal sector increases the likelihood of chronic poverty among households.

An increase in household size, increase the odds of households being chronically poor compare to being non poor by 1.47. This positive relationship is statistically significant at 5% level of significance. This implies that an increases in household size contribute to household falling into poverty. Further, access to remittance, and the number of household heads employed in the formal sector increases the odds of households being chronically poor. This positive relationship is not statistically significant at 5% level of significance implying that although, access to remittance and households' heads employed in the formal sector increases the likelihood of households being chronically poor than non-poor by 2.33 and 1.133 respectively, this effect is statistically insignificant. This result is in agreement with the findings of Adepoju, (2012) who in a similar study using multinomial logit regression model concluded that family size is a significant determinant of chronic poverty and an increase in family size increases the odds of being chronically poor. The findings are also consistent with the work of Arif and Bilquees (2007).

The logit results also revealed that households, headed by a male is 0.998 times less likely to suffer from chronic poverty compared to households headed by a female. Also, an increase in the age of household's head, will decrease the odds of the households being chronically poor. Although the age and sex of the household heads reduces the odds of being chronically poor, its influence is statistically insignificant. Households dwelling in urban areas are 0.3 times less likely to suffer from chronic poverty compared to households dwelling in rural areas, and this relationship is statistically significant implying that dwelling in urban areas significantly reduces the odds of being chronically poor. Also, the results from table 13 shows that increase in the access to electricity, potable water and credit reduces the odds of being chronically poor by 0.99, 0.99 and 0.44 respectively. And this negative relationship is statistically significant at 5% level of significance. Although increase in the land size owned by households reduces the odds of being chronically poor, its influence was statistically insignificant. These findings are similar to the findings of Arif and Bilquees (2007), who in a similar study concluded that access to potable water, electricity and male headed households reduces the odds of being chronically poor.

The human capital variables (primary, secondary, bachelor and post graduate education of household head) showed negative relationship with chronic poverty and is statistically insignificant. Specifically, head of household with primary, secondary, bachelor and post graduate education increases the odds of being chronically poor by 0.952, 0.792, 0.762 and 0.810, respectively. The results correspond strongly with a priori expectations that education is very likely to have a fundamental influence on a household's poverty status but given the Nigeria situation, where graduates lack gainful employment because of the high unemployment rate in the country, the influence of education is not statistically significant. This finding is in agreement with the findings of Gonçalves and Machado (2015) who carried out similar research in Brazil and reported that increase in educational attainment of the household head reduces the likelihood of the family falling into any of the poverty category.

Table 13, also reveals the major factors influencing the odds of transitory poverty in the study. These are; household size, area of residence, access to electricity, educational qualification of household head and access to potable water. The sex of the household head, area of residence, access to electricity, potable water and credit, land size and educational qualification of the household head reduces the likelihood of transitory poverty among households in Nigeria. While household size, age of the household head, access to remittance and household head employed in the formal sector increases the likelihood of transitory poverty among households.

The positive coefficient of household size indicates that increase in household size increases the odds of being transitorily poor by 1.22 and this effect is statistically significant at 5% level of significance. Also, increase in the age of household heads, access to remittance and household head employed in the formal sector increases the odds of suffering from transient poverty among households; although their effect was statistically insignificant at 5% level of significance. This result is consistent the findings of Haddad and Ahmed (2002)

On the other hand, urban residents with large sized lands were found to be less likely to fall into poverty. That is, households residing in urban areas with large land sizes is less likely to suffer from transitory poverty compared to those residing in rural areas with little land size. The inverse relationship between households dwelling in urban and transitory poverty was statistically significant at 5% level of significance. Similarly, male headed households decreased the odds of slipping into transitory poverty by 0.93 compared to female headed households; although, the influences of male headed households in reducing the odds of being transitorily poor was statistically insignificant. This result collaborates the findings of Gonçalves. and Machado (2015) who concluded that male headed households is less likely to fall into chronic or transitory poverty. Also, the results from Table 13 shows that increase in the access to electricity and potable water

significantly reduces the odds of being transitorily poor by 0.99 and 0.99 respectively. Further, access to credit reduces the odds of being transitorily poor by 0.77 but this effect is statistically insignificant. Also, among all the human capital assets, only tertiary (Bachelor degree) education of the head had a significant negative influence on the likelihood of a household being transitorily poor. That is, tertiary (Bachelor degree) education decreased the odds of slipping (2011) who concluded in their study on poverty that higher levels of education is crucial for sustained poverty reduction as it increases opportunity of gainful employment and access to skills which enhances productivity and consequently improves household income and welfare.

5. Summary, Conclusion and Recommendations

5.1. Summary

This study has grouped the households from the NGHS panel data into three categories namely: chronic poor- those who remained poor in all waves of the survey; transitory poor- those who moved into or out of poverty between the waves; and non-poor- those who were non-poor in all waves. The analysis shows that 36.8% of the total households in Nigeria suffers from chronic poverty while 28.4% suffers from transitory poverty. Chronic poverty was found to be prevalent in the Northern region of Nigeria while transitory poverty was prevalent in the southern region. More than 74.3% of households residing in rural areas of the country was found to be suffering from chronic or transitory poverty.

The analysis also shows that household size increases the probability of falling into poverty (transient poverty) or remaining in chronic poverty. Chronically poor households have large families and their monthly per capita expenditures are very low. Although many poor households are economically active, they are unable to escape poverty mainly because of low wages and lack of access to productive assets such as lands. Thus, getting employed does not always translate into escaping poverty. From our result we saw that household heads employed in the formal sector increases the odds of such households being chronically or transitorily poor. Also, educational level of the household reduces the probability of households falling into transitory poverty or remaining in chronic poverty. Access to potable water and electricity had a significant and negative association with the probability of being either chronically poor or transitorily poor. Chronic and transitory poverty was found to be prevalent among households dwelling in rural areas compared to those in urban areas.

5.2. Conclusion

Despite the various poverty alleviation programmes and strategies implemented by the Nigerian governments in their attempt to curb poverty, the country is still being characterized as one of the poorest countries in the world. Of recent, Nigeria was called the 'poverty capital' of the world (World Bank, 2021). Given the high level of poverty ravaging the country, it is imperative for policy makers and Nigerians in general to have a better understanding of the dynamic nature of poverty at the household level.

In this study, the dynamic nature of poverty was analyzed using the Nigeria General Household Survey (NGHS) panel data and it brings to the fore that poverty in Nigeria is not static (i.e., the poor are not a homogenous group) but consists of households trapped in poverty (chronic poverty) as well as households slipping in and out of poverty (transitory poverty). Therefore, the following recommendations are made;

5.3. Recommendation

In formulating and implementing poverty reduction policies, it is important to consider the extent of chronic and transitory poverty. Also, the fact that the number of chronically poor households in Nigeria is more than the number of transitorily poor households, is an indication that the Nigerian government needs to provide long term social security programmes (such as transfers of conditional cash and subsidies for general prices) to empower households and also introduce policies (such as interest free microfinance loans) to encourage asset accumulation by households in the case of households that are transitorily poor, the government needs to adopt policies that encourages them to enroll in insurances schemes and other schemes that could help flatten their consumptions over time.

Further, since most factors that significantly influence chronic poverty are the same factors that influence transient poverty, except for a few that significantly influence transient poverty but not chronic poverty and vice versa, the major focus of the various poverty alleviation programmes must take into account the factors that help poor households exit while giving due attention to the factors that made them poor in the first place.

Poverty alleviation policies should be formulated on the basis of poverty dynamics. A geographical approach would be more useful for such policies. Since chronic poverty is more prevalent in the Northern region of the country, policies such as skills acquisition and empowerment can be formulated for the North, while in the Southern region, transitory poverty is more prevalent, policy on credit schemes would be preferable. Further, the government should formulate and implement more social policies. Social policies allow the poor to benefit from income-based welfare through the subsidization of expenses such as housing, education and amenities, thereby reducing the cost of living. Given the major factors influencing chronic and transitory poverty as discussed in the study, there is need for more structural changes in existing poverty alleviation policies. Efforts should be made by the government to enhance the educational level through free and mandatory primary and secondary schooling and skills acquisition through vocational programmes for chronically poor household in order to increase their living standard, the government should increase the electricity coverage and availability of potable water especially in the rural areas where majority of the households are chronically poor. Also,

government should adopt policies on birth control to control household size downward as it can be seen that from the analysis that increase in household size is statistically significant and has positive influence on the odds of being chronically or transitorily poor.

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The article followed all ethical standards appropriate for this kind of research.

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