



Ene Edet Ene  
Department of Economics  
University of Calabar, Nigeria  
[meetene29@gmail.com](mailto:meetene29@gmail.com)

Ubi Omini Ubi  
Department of Public  
Administration,  
University of Calabar, Nigeria  
[ubiubi@unical.edu.ng](mailto:ubiubi@unical.edu.ng)

Daniella Chinyere Nwanne  
Department of Economics,  
Arthur Jarvis University,  
Akpabuyo,  
Cross River State, Nigeria  
[daniella.nwanne@arthurjarvisuniversity.edu.ng](mailto:daniella.nwanne@arthurjarvisuniversity.edu.ng)

Dachi Arikpo  
Department of Economics  
University of Calabar,  
Nigeria  
[dachiarikpo@gmail.com](mailto:dachiarikpo@gmail.com)

**\*Corresponding author:**  
Ene Edet Ene  
Department of Economics  
University of Calabar, Nigeria  
[meetene29@gmail.com](mailto:meetene29@gmail.com)

## POPULATION GROWTH AND INVESTMENT IN CROSS RIVER STATE

### ABSTRACT

*This study assessed the effects of population growth on investments opportunities in Calabar South Local Government Area of Cross River State, Nigeria. The study adopted the survey design, the sample size for the study were 210 respondents, the instrument of data collection was the questionnaire and the data collected was analyzed using the chi-square technique. From the chi-square result, it was revealed that there is a significant effect of population growth on investment opportunities in transportation businesses in Calabar South Local Government Area of Cross River State and there is a significant effect of population growth on investment opportunities in restaurant businesses in Calabar South Local Government Area of Cross River State. Based on the findings, the study recommended that the population growth rate in Cross River State should be reduced so as to stimulate socio-economic development in terms of more investment opportunities and population considerations should be taken into account at all levels of decision making. Again, the government should create a conducive investment climate for businesses in terms of reduction in taxation so that investments can thrive and government should create enabling environment that will facilitate savings, investment, innovation, entrepreneurship and technical know-how, among others.*

**Keywords:** *Population growth; Investments; Cross River State; Calabar South; Chi-square*

### 1. INTRODUCTION

The emergence of Nigeria in the world as one of the countries with one of the highest population growth rate (2.41 percent) and a population of over 220 million which represent 2.78 percent of the world population (UN, 2022), is a cause for concern to policy makers, social scientists and researchers. The concern is even more crucial with soaring unemployment rate and rising economic emigration (Tom, 2006; Asongu, 2014a). These issues have reignited renewed interest in the problem of long-run investment opportunities. The continuous increase in population really raises important policy questions about the availability of investment opportunities needed to accommodate soaring unemployment occasioned by population explosion.

Scholars have been trying to examine the relationship between population growth and investments opportunities.

According to Asongu (2015), an increasing rate of population growth might influence investors to be pessimistically inclined to feel that, such an increase will cause more absolute unemployment and economic hardship in a country, leading to less profitable investment prospects. Conversely, with an increasing rate of population, expectations of entrepreneurs change as they tend to believe certain investments to be profitable. The spectacular growth of the Nigeria's population, coupled with the substantially documented investment needs of the various states in the country such as Cross River State raise important policy questions about the sources of future investment opportunities that would manage and contend with the present bad economic conditions prevalence in the country.

An increasing population will increase the dependency ratio and workers will have more mouths to feed. Greater dependents on the working population will lead to social burden and economic liability on the working population. Having met their needs and that of their dependents', there will be little or nothing left out of their income. This may reduce savings and leads to lower rate of capital formation and in turn may hamper the socioeconomic growth of the country. The high population growth in Nigeria could results to a situation where households find it difficult to access the basic needs of life hence making many households to fall below the poverty line. In the same vein, the continuous increase in the country's population growth makes the value of household's per capita total consumption expenditures to be below or equal to the poverty line.

Accordingly, the Malthusian and the Neo-Malthusian theories of population are of the opinion that a rising population growth will lead to increase in the poverty level of the population. Recently, the investments climate in Calabar South Local Government Area of Cross River State, Nigeria have been worrisome due to the present economic conditions in the country which is occasioned by low levels of economic activities, high rate of inflation and unemployment, etc hence having negative impacts on investment opportunities in the transport, restaurants, provision shops, businesses as well as many other businesses in Calabar South Local Government Area of Cross River State, Nigeria. It is based on this premise that this study seeks to the following questions: Is there any significant effect of population growth on investment opportunities in transportation businesses in Calabar South Local Government Area of Cross River State? Is there any significant effect of population growth on investment opportunities in restaurants businesses in Calabar South Local Government Area of Cross River State?

This mainly objective of this study is to assess the effects of population growth on investments opportunities in Calabar South Local Government Area of Cross River State, Nigeria.

The paper is structured into five sections. After this introductory section, section two reviews related literature. The methodology is discussed in the third section. Section four comprises results and discussion of findings, and finally, section five draws conclusions based on the findings and recommends the way forward.

## **2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK**

### **2.1.1 Conceptual literature**

#### **Population**

According to OECD (2023), Population is defined as all nationals present in, or temporarily absent from a country, and aliens permanently settled in a country. This indicator shows the number of people that

usually live in an area. Total population includes the following: national armed forces stationed abroad; merchant seamen at sea; diplomatic personnel located abroad; civilian aliens resident in the country; displaced persons resident in the country. However, it excludes the following: foreign armed forces stationed in the country; foreign diplomatic personnel located in the country; civilian aliens temporarily in the country.

ii. Population growth rate:

The growth rate of a population is the average annual percent change in the population, resulting from a surplus (or deficit) of births over deaths and the balance of migrants entering and leaving a country. The rate may be positive or negative.

iii. Investments

According to Capital Market Authority (CMA) Investments is defined as the commitment of current financial resources in order to achieve higher gains in the future. It deals with what is called uncertainty domains. From this definition, the importance of time and future arises as they are two important elements in investment. Hence, the information that may help shape up a vision about the levels of certainty in the status of investment in the future is significant. Investment is also traditionally defined as the "commitment of resources to achieve later benefits".

## 2.2 Empirical Literature

### Population growth, human capital investments and investment opportunities

This section will be discussed in three strands: the first analyzes the debate on the linkages among population growth, human capital and investment opportunities; the second examines the relationship between population growth and investment opportunities and; the third assesses the debate on linkages between population growth and economic development.

In the first strand, it is essential to investigate how the soaring population will be accommodated by future investment dynamics because among the striking regularities, it is evident in aggregate cross-country data (whether examined cross-sectionally or over-time) that, there are inverse associations between fertility rates and 'per capita incomes, indicators of human capital, schooling levels and survival rates'. As a general rule, high-income countries have been (and are) characterized by low fertility and high-levels of human capital (Rosenzweig, 1990). Indeed, those countries that have experienced high rates of per capita income growth have also experienced relatively rapid declines in fertility and increases in human capital levels<sup>10</sup>. Hence, it could be inferred that, declines in fertility and increases in human capital levels accompany economic development.

Such aggregate linkages by themselves do not reveal very much about the determinants of economic growth and human capital investments. In fact, it has frequently been stated that the declining rate of population growth was one of the major contributing causes for the failure of the American economy to recover fully from depression in the 1930s (Rosenson, 1942). It is probably factual that, in a boom period of rapid expansion and increasing population, a sudden decrease in the rate of population

growth would tend to make investors more cautious. Indeed, increasing rate of population growth might influence investors to be pessimistically inclined to feel that, such an increase will cause more absolute unemployment and economic hardship in a country, so that investment prospects are less profitable. On the other hand, with an increasing rate of population, expectations of entrepreneurs change so that they turn to believe certain investments to be profitable. As investors increase their optimism, investment and unemployment increases and decreases respectively.

There are several ways in which population growth might influence investment in the second strand (Sweezy, 1940): (1) through its effect on the propensity to consume; (2) through its effect on the competition of aggregate consumer demand; (3) by means of supply of labour and; (4) as an essential part of a certain broader phenomenon which in turn vitally affects investment. Firstly, a population containing a high proportion of dependents may be expected to have a relatively high propensity to consume. To a considerable extent, this factor cuts both ways (so far as population is concerned). Whereas a rapidly growing population has a high proportion of children, a stationary population has a high proportion of people beyond working age. However, from sociological and political standpoints, the two situations differ considerably. Undoubtedly, a high proportion of dependent in the older age group presents much more a problem for the public than a high proportion of children. Moreover, during the transition period from rapid growth to complete stability, the population goes through a point where the combined proportion of dependents is at a minimum.

Secondly, the effect of population growth on the composition of total consumer demand is important for investment opportunity. In fact, a growing population of necessity directs a relatively large proportion of its expenditure towards commodities which require relatively heavy capital outlays for their production. Thirdly, so far we have been considering the effect of population growth on the demand for commodities and therefore, indirectly on the outlets for investment seeking funds. More direct is the effect of population growth on the labour supply. Indeed, this is the aspect of the concern that has interested classical economists and the usual treatment stems directly from their work. Fourthly, the above points have been asking what the effects of population growth on investment and employment would be. From a wider perspective, the link between population growth and investment is an essential part of a certain broader phenomenon. It is scarcely possible to conceive this linkage as occurring in isolation because; they are intimately bound with other factors (like technological change and progress in health care).

### 2.3 Theoretical framework

#### **Demographic Transition Theory (DTT)**

Demographic Transition Theory (DTT) was first formulated by Warren S. Thompson and Frank W. Nodestein (1945). According to the theory, changes in the size of the world's population over a certain period of time are due to fertility and mortality changes. The theory proposes four stages of mortality and fertility change that occur in the process of societal modernization. Stage 1 (Pre-transitional stage), It shows high rates of fluctuation of mortality and high fertility. Stage 2 (Transitional stage): The Pre-transitional stage was followed by the first transitional stage. For numerous reasons (medical care, improved food production, advancement in science), mortality began to decline in many countries of the world. Stage 3 (Industrial stage): This stage known as the industrial stage was characterized by decreasing population growth due to lower birth and death rates; it is during this period that fertility begins to decline.

Birth rates fall due to family planning and the desire for more possession instead of children. Stage 4 (Post-industrial stage)

In the final stage both fertility and mortality are very low. In recent years, fertility has fallen so low in many countries in the global north and South Korea that the number of deaths exceed the number of births.

Basically, this theory is relevance to this study in the following ways First, as the demographic transitions in Nigeria into stage 2, the reduction in mortality has a significant influence on human capital investments. As the demographic transitions, the health component of human capital investment increases, helping people improve their health conditions. Additionally, life expectancy also becomes higher than before. Increase in life expectancy in the country makes people to work hard and earn more income for consumption and investments purposes thus enabling them to reduce poverty and boost economic growth.

Furthermore, children who are born in high fertility years grow up to join the increasing working population, therefore increasing the labor supply. According to Bloom and Williamson (1997), demographic transition increases labor inputs per person, the proportion of working-age population, the labor force participation rate of working age population increases and there is an increase in workers' working hours thereby increasing the level of investments and economic growth in the country.

#### **2.4 Summary of Literature and Research gap**

This study explored the relationship between population growth and investments opportunities in Calabar South Local Government Area of Cross River State, Nigeria. To the best of our knowledge, no scholars has investigated the relationship between population growth and investments opportunities in Calabar South Local Government Area of Cross River State, Nigeria. It is based on this perceived gap that this present attempt to fill.

### **3. METHODOLOGY**

This study adopted a survey design to establish the effects of population growth on investment opportunities in Calabar South Local Government Area, Cross River State. The area of study is Calabar South local government which is in the Southern Senatorial District. The population of the study consists of various business outfits such as transportation business, restaurants business as well as provision shops business in Calabar South Local Government Area in Cross River State.

Convenient sampling techniques was employed in selecting sample. Respondents was selected from their various businesses in Calabar South Local Government Area. The participants included both male and female. The sample of the study consisted of two hundred and ten (210) businesses from the transportation, restaurant and provision shops businesses in Calabar South Local Government Area. The sources of data for this study were grouped into primary and secondary sources. The primary sources consist of first-hand information obtained from respondents in the course of field work. The questionnaire make up the primary data for this study. On the other hand, the secondary sources of data consisted of journals and other documents on the major variables of the study. The main instrument for data collection was the questionnaire. The data for this research was analyzed with the chi-square statistical technique.

#### 4. DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

##### 4.1 Presentation of Data

**TABLE 4.1:**  
**Summary of respondents**

Questionnaire	Responses according category	Total	Percentage (%)
No. returned	200	200	95.2
Not returned	10	10	4.8
<b>Total</b>	<b>210</b>	<b>210</b>	<b>100</b>

**Source:** *Field survey by the Author, 2024*

From table 4.1 two hundred and ten (210) questionnaires were administered to respondents and out of this number, 200 questionnaires were returned while 10 questionnaires were not returned. The total number of questionnaire returned was 200 representing 95.2 per cent while the total number of questionnaire not returned were 10, representing 4.8 per cent of the respondents who did not return their questionnaire.

##### 4.2 Test of Hypotheses

###### Hypothesis One

There is no significant effect of population growth on investment opportunities in transportation businesses in Calabar South Local Government Area of Cross River State.

Decision rule 1: reject null hypothesis, if chi-square calculated value is greater than the table value at the chosen degree of freedom and the p-value is less than 0.05 chosen significance level.

Decision rule 2: Otherwise accept null hypothesis.

###### Figure 4.1

Summary of Chi-square computation to show if there is a significant effect of population growth on investment opportunities in transportation businesses in Calabar South Local Government Area of Cross River State.

Test Statistics	
Population growth and investment opportunities in transportation businesses	
Chi-Square	170.493 <sup>a</sup>
Df	14
Asymp. Sig.	.000

**Source:** Field work, 2024

From figure 4.1 above, it can be observed that since the chi-square calculated value of 170.493 is greater than the table value of 23.68 at 14 degree of freedom and the p-value of 0.000 is greater than 0.05 chosen significance level. We therefore reject the null hypothesis which states that there is no significant effect of population growth on investment opportunities in transportation businesses in Calabar South Local Government Area of Cross River State and concluded that there is a significant effect of population growth



on investment opportunities in transportation businesses in Calabar South Local Government Area of Cross River State. This result implies that population growth has helped to boost investment opportunities in transportation businesses in Calabar South Local Government Area of Cross River State.

**Hypothesis Two**

Population growth has no significant effect on investment opportunities in restaurants businesses in Calabar South Local Government Area of Cross River State.

**Figure 4.2**

Summary of Chi-square computation to show if there is a significant effect of population growth on investment opportunities in restaurant businesses in Calabar South Local Government Area of Cross River State.

<b>Test Statistics</b>	
Population growth and investment opportunities in restaurant businesses	
Chi-Square	205.611 <sup>a</sup>
Df	12
Asymp. Sig.	.000

**Source:** *Field work, 2024*

From figure 4.2 above, it can be observed that since the chi-square calculated value of 205.611 is greater than the table value of 21.03 at 12 degree of freedom and the p-value of 0.000 is greater than 0.05 chosen significance level. We therefore reject the null hypothesis which states that there is no significant effect of population growth on investment in restaurant business in Calabar South Local Government Area and concluded that there is a significant effect of population growth on investment opportunities in restaurant business in Calabar South Local Government Area. This result implies that population has contributed significantly in promoting investment opportunities in restaurant business in Calabar South Local Government Area.

**4.3 Discussions of Findings**

From the results, there is a significant effect of population growth on investment opportunities in transportation businesses in Calabar South Local Government Area of Cross River State. The significant effect of population growth on investment opportunities in transportation businesses may be due to the increase in the supply of labour in the transportation business in Calabar South. It could also be as a result of a rise in the demand for transportation by passengers to go about their normal businesses. This finding is in line with the finding of Sweezy (1940).

Furthermore, from the results, there is a significant effect of population growth on investment opportunities in restaurant businesses in Calabar South Local Government Area of Cross River State. The significant effect of population growth on investment opportunities in restaurant businesses may be due to the increase in the supply of labour in the restaurant business since a high population growth will increase the labour supply in the restaurant business as well as the propensity to consume by the populace in Calabar South since a high population provides a large market for sales of goods and services which leads to increase in

demand, sales, income and profits of restaurant businesses. This finding conforms to the finding of Sweezy (1940) which stressed that population growth might influence investment by means of supply of labour.

## 5. CONCLUSION AND POLICY RECOMMENDATIONS

This study examined the effects of population growth on investments opportunities in Calabar South Local Government Area of Cross River State, Nigeria. From the findings of the study, it is concluded that there is a significant effect population growth on investment opportunities in transportation businesses in Calabar South Local Government Area of Cross River State, there is a significant effect of population growth on investment opportunities in restaurant businesses in Calabar South Local Government Area of Cross River State, and there is a significant effect of population growth on investment opportunities in provision shop businesses in Calabar South Local Government Area of Cross River State.

Based on these research outcomes, the following recommendations are made:

- i. The population growth rate in Cross River State should be reduced so as to stimulate socio-economic development in terms of more investment opportunities.
- ii. Population factor is important in socio-economic development; therefore, population considerations should be taken into account at all levels of decision making.
- iii. The government should create a conducive investment climate (and ease of doing business) for businesses in terms of reduction in taxation so that investments can thrive.
- iv. Government should create enabling environment that will facilitate savings, investment, innovation, entrepreneurship and technical know-how.
- v. The government should provide the basic infrastructures such as electricity, good roads network, among others to local investors.
- vi. Credit facilities should be provided to business men and women so that they can invest in various businesses that will help in improving their livelihoods, quality of life as well as improve the economic growth in the State.

## REFERENCES

- Asongu, S., A. (2015), "Long-term effects of population growth on aggregate investment dynamics", *African Journal of Economic and Management Studies*, 6(3), 225 – 250 Permanent link to this document: <http://dx.doi.org/10.1108/AJEMS-12-2012-0083>
- Asongu, S.A. (2014a), "The impact of health worker migration on development dynamics: evidence of wealth-effects from Africa", *The European Journal of Health Economics*, 15(2), 187-201, available at: <http://link.springer.com/article/10.1007%2Fs10198-013-0465-4> (accessed April 1, 2013).
- Asongu, S., A. (2013). How Would Population Growth Affect Investment in the Future? Asymmetric Panel Causality Evidence for Africa. *African Development Review*, 25(1), 14–29.
- Azomahou, T., & Mishra, T. (2008). "Age dynamics and economic growth: Revisiting the nexus in a nonparametric setting". *Economic Letters*, 99, 67-71.



- Campbell, J. (2018). *Nigeria faces a crippling population boom*. Retrieved on 17th June, 2020 from <https://www.cfr.org/blogs/nigeria>.
- Malthus, T. (1960). *On Population*. Edited and introduced by Gertrude Himmelfarb. New York: The Modern Library press.
- National Population Commission (NPC) [Nigeria], (1998). *1991 Population Census of the Federal Republic of Nigeria: Analytical Report at the National Level*. Lagos, Nigeria: National Population Commission
- Nnadi, I. (2013). Son preference a violation of women's human rights. A case study of Igbo custom in Nigeria. *Journal of politics and law*, 6(1), 134-141.
- Oramah, I. T. (2006). The effects of population growth in Nigeria. *Journal of Applied Sciences*, 6, 1332-1337.
- Rosenson A. (1942). "Population growth, investment and economic recovery", *The American Economic Review*, 32(1), 122-125.
- Rosenzweig, M. R. (1990). "Population growth and human capital: theory and evidence", *Journal of Political Economy*, 98(5), 33-68.
- Sweezy, A. R. (1940). "Population growth and investment opportunity", *Quarterly Journal of Economics*, 55(1), 64-79.
- Tom, N. (2006). "High growth marred by unemployment", *African Business*, Issue 318, 22-23.