Effects of Present Economic Situation on the Rate of Birth in Ilorin Metropolis

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Abstract: In this research, questionnaire and interview method were used to collect data. Chi-square was used to analyze the data and from the analysis income has a great input on the number of children and also that the number of children depends on type of marriage. Hence, economy has a great impact on the rate of birth of the respondents. We thereby recommended that people should give birth to the number of children they can cater for and that government should improve the general welfare of its citizens by introduction of free basic education and free health care.

Keywords: Economics, Birth, Family, Test

1. Introduction

Nigeria is a country situated at 4° to 15° North of the equator and latitudinal stretch of about 3° to 14° east of the Greenwich meridian. It has about 923,000 square kilometer with a population of about 140,003,652 inhabitants and it is one of the most black populated countries of the world.

The mission of the white (Europeans) to West African coasts is mainly on economic basis. But until 18th century shortly before the abolition of slave trade when the Europeans invaded the interior land of the country.

Nigeria has distinct geographical setting and cultural background. The coming of the Europeans and some others has a direct influence on some of cultural values of the country. Especially with the introduction of Christianity and Islamic religions which is quite difference to our home based traditional religion.

The people had their hope in having as many children as possible which directly or indirectly serves as the source of wealth and basis for farm and popularity in the community. In fact child labour in Nigeria is a tradition as described by Vaknin, [1]. This enhances the polygamous system of family setting among the people in looking for as many children as they can.

Since the children serve as sources of wealth for their parent, people therefore, saw that having many children as an advantage of helping hand in terms of some labour since large percentage of family's basis needs are done and provided with their own children hands. As a result, the parents did not bear much of the burden even if they have them in hundreds but transferred the burden to the children who had no opportunity to either accept or reject. Household heads instead of taking sole responsibility of taking care of the children used them for labour activities to boost income [2].

However, the situation gradually takes a new turn as the Europeans come with introduction of a new religion which preach one God, unity among others and establishment of western education, which pared the way for understanding, ability to read and write and probably know something that is going on in some other continents of the world and as a result monogamous were better adopted and encouraged. In a survey conducted by Anyanwu [3] indicates that monogamous marriages tend to reduce poverty in Nigeria.

This system had many effect on the number of children and wives a man could have at long run. Also, the introduction of western education has its own impact on some people as well. Some of this impact coupled with religion doctrine especially some educated elites found monogamous system of family better and peaceful than polygamous system and with a few number of children as well. By these, they would be able to cope better and cater for their young ones in preparing them for better future instead of beliefs inherited from their fathers who used their children as source of labour on the farm. These children would later become leaders, heads and eminent personalities in the community within a short period of time.

The shift of child labour from the farms to urban areas as noted above is more dangerous than using them in the farms.

This is so, because in the farm their parents have a closer watch over them. Even though, parents would have loved their children to be in their watchful eyes till when they are of age to be on their own but some factors are militating against such ideas. Some of these factors are family structure (polygamy and monogamy) and income. Therefore, some parent has to send their children out as house maids who eventually are abused. Some of these children are used in hawking along the streets. The point now is what is the way out in order not to expose these children to danger? One of the ways out is having the number of children that can be trained with the expected income of the family. But do people take this precaution seriously or they are careless about the consequences by having as many children as they could. This research will give an insight on the current situations.

2. Literature Review

Nigeria has experience rapid population growth since its inception as a nation. According to Ogunbiyi [4] in a study conducted on population and demographic trend shows that by 2050 the population of Nigeria will double from 2010 population. The study further reveals the reasons for the population increase as young age structure of 42.8% of those below 15 years and persistent high fertility rate of about6 children per woman. The issue now is the effect of this increase on the economy and how it will affect families.

The mentality of using children as a source of increasing family income still persist in Nigeria up to this day. The number of child labour involved is not only in farming but also in street hawking which is a very common form of child labour in urban areas of Nigeria [5]. These children are grossly abused because of being exposed to health hazard as working under scourging sun, exposed to rape and other vices. But is there a way out when a single household has so many of them to cater for?

In other to stem out the anomalies of child labour there had been several policies and legislations in Nigeria to improve the welfare of children by eradicating child labour. Even though, these legislations and policies have not been properly applied or enforced.

Nigeria before oil exploration depended mostly on farming with cocoa from the south west and groundnut from the north. The discovery of crude oil in Nigeria brought about a shift from agriculture to almost full dependent on crude oil. The fallen price of oil coupled with rapid population growth is of a great concern to the future of Nigeria economy. Nigeria's population is well over 140 million people from the last population census conducted in 2006. The Gross Domestic Product (GDP) is not too encouraging and inflation is still on a high increase.

There is general believe that economic stagnation is as a result of over population and poor primary health care delivery with low investment in health services [6]. Policy makers are left with the option of stimulating the economy to take care of the population increase and also consider on how to control the population growth rate.

Theodore [7] carry out a study to identify demographic/ economic effects of population growth in Nigeria covering an area of 923,768 sq. km came to conclusion that that an increase in human population means an increasing demand on the environment to provide those resources needed to sustain it.

The study is to investigate whether the economic worries do affect family size and structure (monogamy and polygamy).

3. Methodology

1. Chi-square distribution will be used to analyze the data collected.

$$\chi^2 = \sum_{ij} \frac{(O_{ij} - E_{ij})^2}{E_{ij}} \qquad (1)$$

Where O_i=observed frequency, E_i=expected frequency
And (r-1) (c-1) is degree of freedom [8].
The data will be analysed by the use of SPSS.

4. Presentation of Data

Table 1. *Distribution of number of children per family by family type.*

No of children	Type of family		Total
	Monogamy	Polygamy	
None	21	21	42
One	16	36	52
Two	23	52	75
Three	46	33	79
Four	29	31	60
Above four	93	94	187
Total	219	276	495

Table 2. *Distribution of respondents by children and level of income.*

Montly income	Number of children						Total
	None	One	Two	Three	Four	Above four	
4000 – 10000	27	19	21	17	14	24	121
1100 – 17000	11	13	23	15	9	26	97
18000 – 24000	4	15	25	18	13	31	106
25000 – 31000	5	22	9	9	10	30	85
32000 – 38000	8	4	4	11	3	30	60
39000-+	0	0	4	14	9	4	31
TOTAL	55	71	86	84	58	146	500

5. Data Analysis

Hypothesis 1 (Using Table 2)

Ho: The number of children does not depend on the type of family.

H_1: The number of children depends on the type of family.

Test Statistic: $\chi^2 = 20.1615$

$\alpha = 0.05$

p-value=0.003

Conclusion: The p-value=0.003 is less than $\alpha = 0.05$, we therefore reject Ho, meaning that the number of children depends on the type of marriage.

Hypothesis 2 (Using Table 3)

Ho: The level of income does not have impact on the number of children.

H_1: The level of income have impact on the number of children.

Test Statistic: $\chi^2 = 96.127$

$\alpha = 0.05$

p-value=0.00

Conclusion: The p-value=0.000 is less than α=0.05, therefore we reject Ho, meaning that the level of income has impact on the number of children.

6. General Conclusion

Ordinarily from the data one can see that total numbers of low income earners with the total number of their children are more than the total number of high income earners and with the result of the analysis we conclude that level of income has impact on the number of children. In some communities outside our study the high income earners may have more children than the low income earners.. This is the fact that was stated by Bradbury [9] that parents below a particular income level will prefer not have children. Hence, we concluded that economy has a great impact on the rate of birth of the respondents.

The analysis also indicated that the number of children depends on the type of family (polygamy and monogamy). This is in confirmation of the work of Terilt [10] which revealed that banning polygamy reduces fertility by 40%.

We would want to suggest to the generality of the people to give birth to the number of children they would be able to cater for. In other words, the people should not have children more than what their income can cater for.

We urge the government to improve the general welfare of its citizens and introduce free basic education and free health care or subsidized the cost of education.

With all the above taken into consideration we hope would surely bring about well brought up and catered for future Nigerians who would be able to contribute meaningfully to the development of the nation.

References

[1] Vaknin S. (2009). The morality of child labor, United Press international (UPI).

[2] Onyemauwa, C. S., etal (2013). Household Poverty Status and Child Labour Participation in Isoko North of Delta State, South-South Nigeria. *International Journal of Agricultural and Food Science. ISSN 2249-8516.*

[3] Anyanwu, J. C. (2013). African Development Bank Group: Working Paper on Marital Status, HouseholdSize and Poverty in Nigeria: Evidence from the 2009/2010 Survey Data.

[4] Ogunbiyi, B. (2012). Nigeria: Population and Demographic trends. The Woodrow Wilson InternationalCenter for Scholars, Washington DC.

[5] Osment, L. (2014). Child labour; the effect on child, causes and remedies to the revolving menace. A Thesis Submitted to the Department of Human Geography University of Lund, Sweden.

[6] Olatayo, T. O. and Adeboye, N. O. (2013). Predicting Population Growth through Births and Deaths Rate in Nigeria. Mathematical *Theory and Modeling. ISSN 2225-0522 (Online) Vol.3, No.1.*

[7] Theodore, O. I. (2006). The Effects of Population Growth in Nigeria. *Journal of Applied Sciences, 6: 1332-1337.*

[8] Letchford, S. (1977). *Business Mathematics and Statistics*. 2nd Edition, CASSELL Ltd. London.

[9] Bradbury, B (1992). The Welfare Interpretation of Family Size Equivalence Scale. *SPRC Discussion Paper No. 37.*

[10] Tertilt, M. (2005). Polygamy, Fertility and Savings. Ph. D. Dissertation, Department of Economics, University of Minnesota.