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GROWING THE NIGERIA ECONOMY: SPORTS DEVELOPMENT AS A PANACEA TO GOVERNMENT EXPENDITURE ON HEALTH

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ABSTRACT

This paper investigates the impact of sports development, expenditures on health and economic growth in Nigeria between 1981-2013 through the application of Ordinary least squares technique, Augmented Dickey-Fuller technique in testing the unit root property of the series and co- integration test. The results of unit root suggest that all the variables in the model are stationary at levels and first difference. The OLS result revealed that government expenditures on health is not statistically significant but have positive relationship with GDP, The results also revealed that government on sports possessed a negative impact on economic growth.. A major policy implication of this result is that concerted effort should be made by policy makers to sustain government sporting facilities by adequate and efficient maintenance.

KEY WORDS: *Government Expenditure, Economic Growth, Health Expenditure, sportsexpenditures.*

INTRODUCTION

In the Nigerian economy, public expenditure can broadly be categorized into capital and recurrent expenditures. The recurrent expenditures are government expenses on administration such as wages, salaries, interest on loans, maintenance and so on whereas, expenses on capital projects like roads, airports, health, education, telecommunication, electricity generation and so on, are referred to as capital expenditures (Obinna, 2003). The size of government expenditures and their effects on economic growth and vice versa, have been issues of sustained interest for decades. The relationship between government expenditure and economic growth has continued to generate series of debate among scholars. Government performs two major functions-protection (security) and provision of certain public goods (Al-Yousif, 2000).

The federal Republic of Nigeria (Sports Development Policy, 1989) identifies sports development as, the continuous improvement of the sports structure, institutions and programmes to create a social condition that is conducive for physical fitness for all, and the effective functioning of the individual that ensures self-actualization. Akarah's 2007 research findings showed that an effective sport marketing strategy if put in place in Nigeria, amongst others, would make monetary contributions which would boost the economy of Nigeria.

It is noteworthy to mention that, the Federal Republic of Nigeria (Vision 2010, 1997) identified the sports sector as one of the sectors that could help build a strong revenue base for Nigeria. The report also noted amongst other benefits accruable from sports, the significant role of sports in the sustenance of good health.

The Federal Republic of Nigeria (National Sports Policy 2000:5) stated amongst others that the sports sector could maximally contribute towards the attainment of Nigeria's economic and social integration. Further buttressing the role of the sports sector as an economic yielding component and in the quest to place Nigeria amongst the first twenty nations, the Federal Republic of Nigeria (Vision 20:2020, 2009:81) states that, "sports and recreation beyond providing relaxation also create opportunities for people to participate in physical activities for fun and health, through organized competitions and events, while at the same time helping to address and tackle social issues through positive engagement. When applied effectively, sports, recreation and entertainment programmes promote social integration and foster tolerance, helping to reduce tension and generate dialogue. In addition, if well harnessed, they have the potential to create business opportunities and employment, thereby enhancing income and reducing poverty."

Similarly, Obiyemi, Yakassai and Oyerinde (2006) stated that physical fitness is an essential prerequisite for the accomplishments of both occupational and recreative excellence so as to provide basis for enhancing quality of life; and that physical activities help reduce amongst others, premature mortality, coronary heart disease, hypertension, colon cancer, diabetes. They also noted that to function effectively in our occupation, day to day activities and even in our various duties at home, reasonable level of fitness is required.

Whilst buttressing the value of physical fitness in the health component, Mojoyinola (2002) identified among the health and community development problems, psychosocial problems which include feelings of isolation, rejection, stigmatization, hopelessness and so on and also identified the lack of recreational facilities amongst others as constituting health problems of individuals.

Following the classical prescription before the great depression of the 1930's the role of government in the economy was limited to few services like law and order, natural security and promotion of property rights. Adam Smith (1776) in his discussion of the proper role of the government listed three factors. First, "protecting the society from the violence and invasion of other independent societies, secondly, protecting as far as possible every member of the society from injustice or oppression of every other member and thirdly, erecting and maintaining those public work which though may be in the highest degree of advantages to a great society are, however of such a nature that the profit could never repay the expense to any individual or small group of individuals. This list is referred to as the care function of the government. Today however, the economic role of the government has expanded to include consumption and investment expenditure.

Scholars argue that increase in government expenditure on socio-economic and physical infrastructures encourage economic growth. For example, government expenditure on health and education raises the productivity of labour and increases the growth of national output. Similarly, expenditure on infrastructures such as roads, communications, power and so on reduce production costs, increase private sector investment and profitability of firms thus fostering economic growth. As observed by Al-Yusuf and Couray (2009), Abdullah (2000), Ranjan and Sharma (2008) and Cooray (2009) the expansion of government expenditure contributes positively to economic growth. In Olukoye (2009) the general view is that public expenditure whether recurrent or capital, notably, on social and economic infrastructure can be growth-enhancing.

The provision of infrastructure services to meet the demands of business, households and other users is one of the major challenges of economic development in developing countries like Nigeria. Developing countries invest about $200billion a year in new infrastructure representing four percent of their national output and a fifth of their total investment. The result has been a dramatic increase in infrastructure services-for transport, power, water, sanitation, telecommunications and irrigation (World Bank Development Report 1994). Government spending in Nigeria has continued to rise due to the huge receipts from production and sales of crude oil and the increased demand for public utilities (goods) such as roads, communication, power, education and health. There is increasing need to provide both internal and external security for the people and the nation. Available statistics show that total government expenditure (capital and recurrent) and its components have continued to rise in the last three decades. For instance, government's total recurrent expenditure increased from N4, 805.20 million in 1980 to N36,219.60 million in 1990 and further to N1, 589,270.00 trillion in 2007. On the other hand government capital expenditure

rose from N10, 163.40 million in 1980 to N24, 048.60 million in 1990.

Capital expenditure stood at N239, 450.90 million and N759, 323.00 million in 2000 and 2007 respectively. The various components of capital expenditure have risen between 1980 and 2011. However, the rising government expenditure may have not translated to meaningful growth and development, as Nigeria ranks among the poorest countries in the world. In addition, many Nigerians have continued to wallow in abject poverty while more than fifty percent live on less than US$1per day. Moreover, macroeconomic indicators like balance of payments, import obligations, inflation rate, exchange rate and national savings reveal that Nigeria has not fared well in the last three decades.

It is disturbing to note that government's expenditure seems to have not replicated same level of economic growth in Nigeria. For instance, between 1980 and 1990, while theGDP growth rate was decreasing (57.15% down to 2.87%), government expenditure growth rate was increasing (23.2% to 41.24%). Thus, there is an inverse relationship between the two periods. However, it is found that the growth rate of government expenditure in 2000 and 2010 was 15.53% and 2.15% respectively, while GDP growth rate witnessed 8.79% and 1.54% in the same period respectively. Thus, government's expenditure growth rate has been greater than GDP growth in the same period. Due to the mixed feeling on the above, the debate has been inconclusive on whether or not increasing government spending induces economic growth or not. Based on the above this paper attempts to investigate whether sports development would help curb government expenditures on health thereby growing the Nigeria economy. The major objective of this study is therefore, to ascertain whether there will be a relationship between sports development and government's expenditure on health as a prerequisite for growth of the Nigeria economy. The specific objectives are:

1. To ascertain the impact of government expenditures on health on economic growth in Nigeria.
2. To analyze the effect of government expenditures on sports and economic growth in Nigeria
3. To ascertain the impact of sports development on government's expenditures on health.
4. To ascertain if there is long term causal relationship between government spending on health and economic growth in Nigeria.

RESEARCH QUESTIONS

The following research questions were raised to guide the study:

1. To what extent has government expenditures on health influenced the level of economic growth in Nigeria?
2. To what extent has sports development influenced the level of economic growth in Nigeria?
3. To what extent will sports development reduce government expenditures on health in Nigeria?

RESEARCH HYPOTHESES

The following hypotheses were formulated to guide this study:

1. There is no significant relationship between expenditures on health and economic growth in Nigeria.
2. There is no significant relationship between sports development and economic growth in Nigeria
3. There will be no significant relationship between sports development and reduction of government expenditures on health in Nigeria.

EMPIRICAL LITERATURE

Researchers have attempted to examine the effect of government spending on economic growth in different countries and periods. Ram (1986) studied the linkage between government expenditure and economic growth for a group of 115 countries during the period 1950-1980 using both cross section time series data in his analysis and confirmed a positive influence of government expenditure on economic growth.

Erkin (1988) examined the relationship between government expenditure and economic growth by proposing a new framework for New Zealand. The empirical results showed that higher government expenditure does not hurt consumption, but instead raises private investment that in turn accelerates economic growth. Foster and Skinner (1992) studied the relationship between government expenditure and economic growth for a sample of wealthy countries for 1970-1995 periods using various econometric approaches. They submitted that more meaningful (robust) results are generated, as econometric problems are addressed.

Abu-Bader and Abu-Qarn (2003) employed multivariate co-integration and variance decomposition approach to examine the causal relationship between government expenditures and economic growth for Egypt,

Israel, and Syria. In the bivariate framework, the authors observed a bi-directional (feedback) and long run negative relationships between government spending and economic growth. Moreover, the causality test within the trivariate framework (that include share of government civilian expenditures in GDP, military burden, and economic growth) illustrated that military burden has a negative impact on economic growth in all the countries. Furthermore, civilian government expenditures have positive effect on economic growth for both Israel and Egypt.

Loizides and Vamvoukas (2005) employed the trivariate causality test to examine the relationship between government expenditure and economic growth using data set on Greece, United Kingdom and Ireland. The authors found that government size granger causes economic growth in all the countries they studied. The finding was true for Ireland and the United Kingdom both in the long run and short run. The results also indicated that economic growth granger causes public expenditure for Greece and United Kingdom, when inflation is included. Komain and Brahmasrene (2007) examined the association between government expenditures and economic growth in Thailand, by employing the Granger Causality Test. The results revealed that government expenditures and economic growth are not cointegrated. Moreover, the results indicated a unidirectional relationship, as causality runs from government expenditures to growth. Lastly, the results illustrated a significant positive effect of government spending on economic growth.

Olugbenga and Owoye (2007) investigated the relationships between government expenditure and economic growth for a group of 30 OECD countries during the period 1970-2005. The regression results showed the existence of a long-run relationship between government expenditure and economic growth. In addition, the authors observed a unidirectional causality.

THEORETICAL REVIEW ON EXPENDITURES ON HEALTH AND ECONOMIC GROWTH

Public health and human rights are complementary approaches to promoting and protecting human dignity and wellbeing (Aniekwu, 2006). There is a link between macroeconomics and health status. A very important component of economic development of a country is its people's state of health. In fact, there is the argument as to whether it is health that causes development or it is economic development that causes health improvements.

Nurudeen and Usman, (2010) argue that rising government expenditure on health results in an increase in economic growth. They among others, suggest that government should raise its expenditure in the development of the health sector since it enhances productivity and economic growth. In the same flow, Berger and Messer (2002) view health as a form of capital, such that health care is both a consumption good that yields direct satisfaction and an investment good that yields indirect utility through increased productivity, fewer sick days and higher wages. In the literature, while some authors (Abu and Abdullahi, 2010) established a negative relationship between increased government expenditure and economic growth; others, (Bakare and Olubokun, 2011) still found that the relationship is unidirectional in as much as government expenditure impacts very little on growth while, growth does not impact on government expenditures. According to WHO (2010), public health expenditure consists of recurrent and capital spending from government budgets, external borrowings and grants (including donations from international agencies and NGOs), as well as compulsory health insurance funds.

ANALYSIS OF THE ECONOMIC EFFECTS OF SPORT

The sport-related impact on the Nigerian economy can be determined by further calculations result in sport-related gross National Product and sport-related employment – as well as the direct and indirect sport-related effects (multiplier effects) on the value-added effects, the purchasing power, labour market and the calculation of value added effects of sports on growth. The value-added effect of a sector is the difference between total production and the inputs needed to generate this production. To quantify these direct value-added effects, information on income and expenditure in sports, as well as investment, is necessary by subtracting the payments for the inputs from the expenditures. The direct value-added effect is obtained by applying the appropriate multipliers, the direct and indirect value-added effects are obtained.

CALCULATION OF THE PURCHASING POWER EFFECTS OF SPORTS

For the quantification of the direct effects on purchasing power, the expenditures for investments and material expenditures as well as effective net incomes are needed. The effective net income is derived according to the following scheme:

Calculation of the Employment Effects of Sport:-

The following methods can be used in order to calculate the direct employment effects: using the average personnel expenditure per year and per person to calculate the effects as well as using a common "employment structure" of the sector proportional to the value-added effect based on labour productivity. The marginal labour productivity is defined as the ratio of the change of productivity to the change of labour input (either number of employees or working hours). The marginal labour productivity indicates the change of productivity per additional employee. The inverse ratio which is the work coefficient is a measure for the number of persons employed in the production process.

For an extensive evaluation of the employment effects, further factors have to be considered. For example, the occupation structure is an important issue. The occupation elasticity is usually larger for workers than for employees, and in sporting activities especially in the areas of sports marketing expansion of the construction activities and efficient marketing of sports will lead to a significant increase in the number of workers in the Nigerian economy. A significant increase in the number of employees in sports departments will however cetaris paribus lead to increase in health care activities which will inversely translate to growth of the Nigerian economy. Another important factor is the extent of capacity utilization in the sporting sector, sports marketing and government allocations to the health sector and other appropriate sectors. The full employment effect is only realised at 100 per cent capacity utilization and an appropriate increase in the capacities due to the projected extra demand. Beyond that, the tendency exists to compensate a non-permanent demand by overtime and extra shifts rather than by an additional employment of workers.

Calculation of Multiplier Effects:-

For each final expenditure, multiplier effects are assumed since each business needs unfinished-goods as well as raw materials and supplies from other sectors for the production of its products and/or services. Multipliers show how much of the production of other sectors is needed to produce a certain good. For example, production of a sports car requires seats, which come from a different sector. These seats again need textiles, thus affecting a third sector and so on. The size of the multipliers primarily depends on the structure of the "economic linkage" of the source sector to the remaining sectors. That means it depends on how much is received from and delivered to all sectors directly as well as indirectly. The more the sectors are interlinked, the higher are the multipliers, usually ranging from 1.0 to a little more than 2.0. Applying multipliers on the direct effects generate the indirect effects. If for example, a football stadium costs 30 million Naira (direct effect) and construction sector reports a multiplier of 1.8, the indirect effect will be (1.8 - 1.0) x 30, that is 24 million Naira. It has to be considered that national businesses as well as foreign countries are involved in the supply chain, but primary effects for a country depend only on import-adjusted values.

Definition of Sport in the Economic Sense:-

The sport economy as a whole is not a separate statistically measured sector, but is part of various other industries and economic sectors. National statistical offices measure sport explicitly only by the category "operation of sports facilities" in NACE 92.6 where NACE stands for "*Nomenclature statistique des activités économiques dans la Communauté européenne*" and is a classification of industries according to their economic activity. Other categories such as the production of sport articles, sport retail, and sport tourism are ignored in the statistical definition. From an economic point of view, sport is an activity which has repercussions in many different areas of the economy.

Sport-Related Health:-

Sport-related gross value added in the health sector is divided into four subsectors: hospital activities caused by injuries during sport activities, outpatient care caused by injuries during sport activities, hospital activities as medical care for professional athletes, and outpatient activities as medical care for professional athletes. The Eurostat database on national accounts contains gross value added in the health sector for the Member States in 2005. Data on health expenditure, differentiated by supplier and country, are available for 2005 in OECD Health Statistics. Shares of inpatient and outpatient care in expenditure were estimated on this basis and transferred to gross value added in the health sector. The Eurostat database on health statistics contains data on hospital discharges by causes following ICD10. The Injury Database (IDB) (see Bauer (2009)) of the European Union, a representative survey compiled from hospitals of the Member States, contains detailed data on injuries (e.g. on the activity during which the injury occurred), accounting also for sport, and on the treatment in the hospital, whether admitted, treated as an outpatient or sent to a practitioner. Combining these data sources, the share of inpatient care after sport injuries in gross value added of

the health sector was estimated. The Eurostat database on health statistics contains data on outpatient care by diagnoses by the nature of injuries.

In conjunction with the IDB, the share of sport-related injuries in outpatient care could be estimated and hence the sport-related gross value added in outpatient care could be estimated.

RESEARCH METHODOLOGY

To empirically examine the impact of sports development as a panacea to government expenditure on health thus enhancing growth of the Nigerian economy, the researchers subjected the data collected to Unit Root Test, Cointegration, Error Correction test and Granger casualty test. The ADF test is used to test whether the variables are non stationary (unit root). If the results indicate that all series are stationary in the first difference or all series are generated by 1(1) process, condition of stationarity is established or confirmed (Gujarati, 2004). An Error Correction Mechanism is employed to ascertain the speed of adjustment from the short run equilibrium to the long run equilibrium state.

DATA SOURCES

To investigate how sports development could be a panacea to government expenditure on health thus enhancing economic growth in Nigeria, a number of variables have been taken into consideration in this study. These variables consist of Real Gross Domestic Product (RQP), Government expenditure on health (GEXH), Government expenditures on social services (GES) and Government expenditures on communication (GEC) for the period of 1981-2013 and are defined in our model specification. All the variables were sourced from Central Bank of Nigeria's (CBN) statistical bulletin for various years. And are all expressed in million Naira.

MODEL SPECIFICATION

In order to capture the precise relationship between sports development being a panacea to government expenditures on health as a prerequisite for growth in the Nigerian economy, we specified an empirical model that incorporates the effect of government spending and investment in social and communication services on real gross domestic product in Nigeria. We follow the model of Ram (1986) used for a panel of 115 countries both developed and developing, which forms a basis of our empirical model of government expenditure and growth. Denoting the private sector D and public sector G, with capital (K) and labour (L) allocated between both such that K = KD + KG, and L = LD + LG. To capture externalities associated with the public sector, G enter the production function of the private sector D:

$$D = D(K_D, L_D, G) \quad 1$$

$$G = G(K_G, L_G) \quad 2$$

We assume a constant productivity differential between labour in both sectors:

$$G_L/D_L = I + \delta$$

Where $\delta > 0$ implies lower productivity in the public sector (the reverse would be the case if $\delta < 0$ and we assume $\delta \neq 0$. With regard to the Ram (1986) model, we specify our model with some modifications to suit the purpose of our study with regards the Nigerian economy as:

$$RQP = f(GEXH, GES, GEC) \quad 3$$

Equation 3 can be explicitly written as

$$RQP = \lambda 0 + \lambda_1 GEXH + \lambda_2 GES + \lambda_3 GEC + \theta_t \quad 4$$

Where:

RQP = Real gross domestic product

GEXH = Government expenditures on Health

GES = Government expenditures on social services as proxy for government expenditures on sports

GEC = Government expenditures on communication

ANALYSIS OF RESULTS

The analyses of results commence with the ordinary least squares (OLS), unit root test and followed by the Cointegration test.

Table 4.1: Summary of OLS Result

Dependent variable: LOG (GDP)
Sample: 1981-2013.

Variable	Coefficient	STD. Error	T-Stat	Prob
LOG (GEXH)	0.143917	0.084856	1.696027	0.1006
LOG (GEC)	0.090781	0.038955	2.330388	0.0269
LOG (GES)	-0.076554	0.104484	-0.732686	0.4696
C	11.60234	0.207976	55.78693	0.0000
R-squared	*0.909222*		*F-Statistics*	*96.82063*
Adjusted R-squared	*0.899832*		*Prob (F-Statistic)*	*0.0000*
Durbin Watson	*2.833075*			

Source: *Authors calculation using e-views.*

The ordinary least squared (OLS) result shows that 90 percent of the total changes in Nigeria's growth have been explained by government expenditures on health (GEXH), government expenditures on communication (GEC) and government expenditures on sports (GES) taken together. This is a nice fit as the unexplained variation is 10 percent i.e 1- 0.909222.

The F-test with a value of (96.82063) and probability of (0.00000) suggest that government expenditures on health (GEXH), government expenditures on communication (GEC) and government expenditure on sports (GES) are significant factors to be taken into consideration when explaining the changes in the level of economic growth and development in the Nigerian economy. This indicates a rejection of the general hypothesis which states that there is no significant relationship between government expenditures on sports and health and economic growth in Nigeria and an acceptance of the alternative hypothesis which states there is a significant relationship between government expenditures on sports and health and economic growth in Nigeria.

The T-test suggests that government expenditures on health (GEXH) with a value of (1.696027) and probability of (0.0269) is not statistically significant but has positive relationship in explaining the changes in Nigeria's economic growth. A one percent increase in government expenditure on health will increase economic growth by 0.143917 percent, which is an indication that the money on income allocated to the health is not large enough to translate into growth and development of the economy. This could be the reason why health facilities are so poor all over the nation. This result is in agreement with the work of Robinson, Eravwoke and Ukavwe (2014) who from their result found that government expenditures on the Health Sector is not enough to transform the gross domestic product of the Nigerian economy thus accounting for why health facilities in Nigeria are among the poorest in the world.

The T-test equally suggests that government expenditures on communication (GEC) with a value of (2.330388) and probability of (0.0269) is statistically significant in explaining the level of economic growth in Nigeria. The implication of this result is that the awareness created via communication in different media on the importance of fitness via sporting activities and healthissues awareness have helped in developing the Nigerian economy. This is supported by Akarah (2011) when he stated that the "Nigeria government could incorporate sports in its economic development mix with the intent of boosting the nation's economy by incorporating public relations through media and community relations as promotional tools".

Lastly, the T – test suggest that government expenditures on sports with value of (0.732686) and probability of (0.4696) is not statistically significant and have negative relationship with economic growth in Nigeria, a one percent increase in sporting facilities reduces economic growth by -0.076554 percent. The implication of this result is that when the government is the sole proprietor and spends so much on sporting facilities which are supposed to aid growth, because of lack of maintenance culture it reduces its growth, hence the result is showing non significance and negative relationship. This finding is supported by Akarah (2010) when he stated that, the Nigeria government is the sole proprietor and financier of sports thus creating low competition in the aspect of marketing sports as a product and further posited that, if the government were to allow sport producers take charge of the sports sector like it has done through its reforms in some of the other sectors, establish policies that would govern the sports sector, specify the roles that are expected of the producers as well as the taxes and tariffs that would be paid by the producers/ marketers, then government would generate revenue that could be used in revamping and boosting the economy.

The coefficient of determination (R^2) with a value 0.899832 for the model, this indicates that there a very strong positive linear relationship between the dependent variable (GDP) and the explanatory variables GEXH, GEC and GES and the explanatory variables accounted for 89 percent of the variation in economic growth while the remaining 11 percent variation in economic growth is explained by other exogenous variables that are excluded from the model. (error term). The Durbin Watson (DW) test with a value of *2*.833075 did not show support for the existence of first order serial correlation in the model.

Unit Root Test:-

The Augemented Dickey Fuller (ADF) unit root test was used to assess whether the variables are stationary or not and their order of integration. The ADF is preferable to the Dickey Fuller (DF) test because it corrects for serial correlation in the variable. The result of the ADF unit root test is shown in table 4.1 below:

Table 4.1: Summary of ADF Unit Root Test Result

Variables	Level data	First difference	1% CV	5 % CV	10 %	Order of integration
GDP	-0.694306	-7.960872	-3.653730	-2.957110	-2.617434	I (I)
GES	6.490173		-3.699871	-2.976263	-2.627420	I (0)
GEXH	1.406187	-5.223928	-3.661661	-2.960411	-2.619160	I (1)
GEC	6.271436		-3.737853	-2.991878	-2.635542	I (0)

***Source**: Authors calculation using e-view*

-3.699871, -2.976263 and -2.627420 indicate significance at the 1%, 5% and 10% levels respectively CV= Critical Value

The ADF unit root test result indicates that the variables were originally non-stationary. They however become stationary at levels and at first difference. This can be seen by comparing the observed values (in absolute terms) of the ADF statistics at 1 percent, 5 percent and 10 percent levels of significance. Economic growth (GDP) and government expenditures on health (GEXH) attained stationarity at first difference i.e. I(I). However government expenditures on sport (GES) and government expenditures on communication that help to create awareness on sports and other sectors (GEC) attained stationarity at levels i.e. I(0). Since all these stated variables were stationary at levels and first difference, on the basis of this, the null of non-stationarity is rejected and it is safe to conclude that the variables are integrated of order zero I(0) and order one i.e I(1). This permits us to test for co-integration which forms the basis of the next section.

Co-integration Test:-

The Johansen co-integration test was used to test the long-run equilibrium relationship among the variables. The Johansen methodology is preferable over other tests such as the Engel-Granger tests because it amongst others, allows for more than one co-integrating equation. Table 4.2 shows the Johansen test result:

Johansen Cointegration Test Result:-

Table 4.2: Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace statistic	0.05 percent critical value	Prob. **
None*	0.619063	65.92728	47.85613	0.0004
At most 1	0.479572	36.00855	29.79707	0.0085
At most 2	0.373698	15.76231	15.49471	0.0456
At most 3	0.039729	1.256720	3.841466	0.2623

Trace test indicates 3 cointegrating eqn(s) at the 0.05 level
** denotes rejection of the hypothesis at the 0.05 level*
*** Mackinnon- Haug-Michelis (1999) p- values*

Table 4.3: Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE (s)	Eigenvalue	Max-Eigen Statistic	5 percent Critical value	Prob.**
None*	0.619063	29.91874	27.58434	0.0246
At most 1	0.479572	20.24624	21.13162	0.0661
At most 2	0.373698	14.50559	14.26460	0.0458
At most 3	0.039729	1.256720	3.841466	0.2623

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level
** denotes rejection of the hypothesis at the 0.05 level*
*** Mackinnon- Haug-Michelis (1999) p- values*

The results of the unrestricted co-integration rank test (trace) indicate three co-integrating equations. The max-eigenvalue statistic also indicates one co-integrating equation. Following Harris (1995), in case of differences in the number of co-integrating equations the trace statistic supersedes.

CONCLUSION AND POLICY RECOMMENDATIONS

The Nigeria government is desirous of growing the nation's economy especially as is evident in the Vision 20:2020 blueprint which seeks to place Nigeria amongst the top 20 nations by the year 2020. In order to accomplish this feat, it will be imperative for government to regulate

its expenditures in the various sectors. Government budgetary expenditures in the health sector can be grossly pruned if the Nigerian citizenry has awareness on the need to, and use sporting and recreational activities in the enhancement of mental, emotional and social attributes as well as physical fitness as a means of increasing productivity at the work place. This trend will no doubt help reduce government's expenditures on health and grow the Nigerian economy. Achieving the above feat is predicated on governments' willingness to embark on sports development by evolving the public private partnership scheme in funding and provision of the necessary sports facilities.

It is therefore recommended that; the Nigeria government should drastically reduce its expenditures in funding sports and encourage private partnership in the sports sector thus enhancing the improvement and maintenance of sports and recreational facilities which, will in turn lead to a reduction on budgetary health expenditures since the health status of the average Nigerian would have been improved through physical fitness.

It is further recommended that health and fitness campaigns be stepped up as a means of ensuring increased participation towards the attainment of improved preventive health measures.

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