Effects of Agricultural, Transportation and Finance Sector on Gross Domestic Product in Nigeria

Adeoye .A. O., Adedoyin .I.S, Ishola J. A

Department of Statistics Federal Polytechnic offa Kwara State Nigeria
Department of Business Administration Kwara State Polytechnic, Ilorin, Nigeria
Faculty of Management and Social Sciences Thomas Adewumi university Oko Kwara State Nigeria

ABSTRACT
This project Statistical analysis on impact of Agriculture,Transportation and Finance sector on gross domestic product in Nigeria aims to model the gross domestic product on Agriculture ,Transportation and Finance and to compare the impact of each of the variable under consideration , Data was extracted from National bureau of Statistics Bulleting , Regression analysis with the help of SPSS was used to analyse the data, from the analysis the following model is obtained $Y=4.614+1.595X_1+0.128X_2-0.042X_3$.Further analysis indicate that the contribution of Agriculture to the gross domestic Product is significant and that the contribution of transportation and finance is not significant . It was discovered R^2 of 0.67 (67%) indicate that the total variation of 67% in gross domestic Product is explained by agriculture, transportation and finance. The result of test of independent on agriculture and transportation shows that there is significant difference between the contribution of transportation and agriculture, also the same test shows that there is significant difference between the contributions of agriculture and finance while the result of the analysis revealed that there is no significant difference between the contributions of agriculture and finance.
Key words: Agriculture, Finance Transportation and Gross Domestic Products

I.   INTRODUCTION
Agriculture, transportation and finance sector on gross domestic investment has long been considered a subset or component of the capita representing the basic foundation that underpins all production functions. Historically, shipping volumes of raw materials to the factory and finished goods to the market in a timely manner depend on the availability and quality of the rural agriculture transportation and finance sector on gross domestic system, mainly in the form of roads traveled by trucks and automobiles Akpan (2012). For much of the 20th century, agriculture transportation and finance sector on gross domestic investment was one of the least recognized subfields of economic development, and it was virtually neglected as an analytic component in the early development of economic literature, in which capital is undifferentiated and commonly represented by factories Anaebonam (2014).

Agriculture, transportation and finance sector on gross domestic was not considered with the same focus as other forms of capital in the early economic models Chidiadi (2019). In particular, the state's dependency on finance sector on gross domestic has been a complicated issue. Productivity effects are likely to vary substantially according to the type of finance (private versus public) and can differ as the level of agriculture finance sector on gross domestic evolves over time Olajide et.al (2012). Numerous contemporary research works have added to empirical knowledge concerning agriculture transportation and finance sector on gross domestic as a facilitator and important contributor to a nation's economic development Oni (2014).

Oyedele (2017) explained the reason agriculture transportation and finance sector on gross domestic underrepresented in the early economic literature. Traditional economic models treat capital as undifferentiated; that is, agriculture and other production components were lumped together as capital, so the specificities of finance were not captured. Olajide et al. (2012) asserted that one of the main econometric challenges has been the identification of the productivity effects of agriculture transportation and finance sector on

gross domestic. agriculture transportation and finance sector underlies the more visible forms of capital, facilitating the delivery of inputs to places of production and the delivery of finished goods to marketplaces. agriculture transportation and finance sector on gross domestic also supports various social services, providing access to schools, hospitals, and places of employment Akpan (2012).

Given the capital-intensive nature of agriculture transportation and finance sector on gross domestic and the increasing scarcity of resources for capital-intensive projects, it is important to understand the effects of agriculture transportation and finance sector on gross domestic investments on the economic activity of a developing country Oni (2014). There is burgeoning literature directed at the relationship between agriculture transportation and finance networks investment and economic development in developed countries such as the United States and United Kingdom Oyedele (2017). In contrast, very limited numbers of studies have addressed the possible relationship between investment in agriculture transportation and finance sector on gross domestic and economic development in developing countries including the Federal Republic of Nigeria, which I proposed to study.

II.   RESEARCH METHODOLOGY
METHODS OF DATA ANALYSIS
Multiple Linear Regression
 Model Specification of Data Analysis
The model specification used in this study is based on the description of the relationship between the dependent and independent variables of this research work.
The linear descriptive models for this study is defined as:
$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + e$$
Where, Y is dependent variable (Geo-political Zone),
x_1: Agriculture
x_2: Transportation
x_3: Finance
β_1, β_2, and β_3 : are the coefficients of independent variable, β : intercept term and e: Error term

III.   DATA PRESENTATION AND ANALYSIS
Table 1 : Shows data Presentation on Quarterly basis

Year	Quarterly	X1 Agriculture	X2 Transportation	X3 Finance	Y GDP
2017	Q1	3.38	2.11	5.04	10.45
	Q2	3.74	1.7	5.42	10.82
	Q3	5.18	1.97	4.79	11.86
	Q4	4.85	2.53	5.27	12.65
2018	Q1	3.48	2.41	5.71	11.52
	Q2	3.79	2.16	5.49	12.05
	Q3	5.28	2.21	4.56	11.44
	Q4	4.97	2.77	5.17	12.05
2019	Q1	6.07	7.92	1.02	12.84
	Q2	6.78	6.5	1.5	15.01
	Q3	9.7	7.6	9.09	14.70
	Q4	9.25	8.34	1.23	26.39
2020	Q1	7.44	9.53	1.27	18.82
	Q2	8.13	3.84	1.27	13.24
	Q3	11.10	4.98	9.62	25.70
	Q4	10.55	.02	1.22	19.74

Source : National Bureau of Statistics Bulleting
Table 2: Shows the result of regression analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.614	2.080		2.218	.044

AGRICULTURE	1.595	.299	.819	5.332	.000
TRANSPOTATION	.128	1.354	.598	0.498	.477
FINANCE	-.042	.134	.875	0.325	.998

a. Dependent Variable: GROSS DOMESTIC PRODUCT

b. Predictors in the Model: (Constant), AGRICULTURE

Hypothesis for joint test (β-test)
$H_0: \beta_0 = \beta_1 = \beta_2 = \beta_3 = 0$
$H_1: \beta_1 \neq 0$ for at least β_i
Test Statistic

$$F = \frac{SSR}{SSE} \text{ where,}$$

From the table one above the model is Y=4.614+1.595X1+0.128X2-0.042X3   which shows that the contribution of Agriculture to the gross domestic Product is higher than other factors considered in this research   and that the contribution of transportation and finance is not significant . It was discovered R^2 of 0.67 (67%) indicate that the total variation in gross domestic Product is explained by agriculture, transportation and finance. Also, since transportation and finance is not significant then the model reduced to Y=4.614+1.595X1

Table 3 : Shows the ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	257.876	1	257.876	28.433	.000[b]
	Residual	126.973	14	9.070		
	Total	384.849	15			

a. Dependent Variable: GROSS DOMESTIC PRODUCT
b. Predictors: (Constant), AGRICULTURE

Hypothesis for individual test (T-test)
H_0: The model does not fit the data
H_1: The model fit the data
Test statistic :Pvalue = 0.000

α = 0.05 Decision Rule : Reject H0 if Pvalue less than α
Decision : Reject H_0
Conclusion : The model fit the data

Table 4 : Paired Samples Test

		Paired Differences	t	df	Sig. (2-tailed)
		95% Confidence Interval of the Difference			
		Upper			
Pair 1	AGRICULTURE TRANSPORTATION	-2.90165	3.590	15	.003
Pair 2	AGRICULTURE FINANCE	-4.32108	2.322	15	.035
Pair 3	TRANSPORTATION FINANCE	-2.95498	.365	15	.720

The result of test of independent on agriculture and transportation shows that there is significant difference between the contribution of transportation and agriculture, also the same test shows that there is significant difference between the contributions of agriculture and finance while the result of the analysis revealed that there is no significant difference between the contributions of agriculture and finance.

IV. SUMMARY, CONCLUSION AND RECOMMENDATION

This research model the gross domestic product on Agriculture,Transportation and Finance, from the analysis the following model is obtained $Y=4.614+1.595X_1+0.128X_2-0.042X_3$.Further analysis indicate that the contribution of Agriculture to the gross domestic Product is higher than other factors considered in this research and that the contribution of transportation and finance is not significant . It was discovered R^2 of 0.67 (67%) indicate that the total variation of 67% in gross domestic Product is explained by agriculture, transportation and finance. Also, since transportation and finance is not significant then the model reduced to $Y=4.614+1.595X_1$

The result of test of independent on agriculture and transportation shows that there is significant difference between the contribution of transportation and agriculture, also the same test shows that there is significant difference between the contributions of agriculture and finance while the result of the analysis revealed that there is no significant difference between the contributions of agriculture and finance. We thereby recommend that government should encourage people to embark on agriculture in order to improve the Nigeria Gross Domestic Product

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