Local Government Finance and Community Development in Nigeria

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Abstract

Using the Ordinary Least Square (OLS) method, the research investigates the effect of local government budget on community development in Nigeria. The findings show that the overall loan taken out by local governments has a negative and significant effect on human development. Additionally, it was discovered that municipal governments' overall spending had a somewhat favourable effect on human development. Additional research revealed that local governments' present revenues significantly and favourably affected human development. The rate of population expansion had a detrimental and severe impact on human development. The total amount borrowed by municipal governments also had a detrimental but little effect on life expectancy. The results also demonstrated that local governments' overall spending, current revenue, and real GDP growth rate all had a favourable and significant impact on life expectancy. Local government autonomy is recommended. With local government autonomy, federal allocation (revenue) as well as other revenues will come direct to the local governments and not through the state governments. This will ensure higher revenue for the local governments to carry out development-oriented projects and programmes. Also, local government authorities should utilize available revenues in bringing about desired community development in the areas of human development in Nigeria. Local government autonomy is recommended so that revenue from the federation accounts and other revenues could go directly to local government, not through state governments. This could improve on local government revenue base and bring about desired human development in Nigeria.

Keywords: *Autonomy, Community, Development, Finance, Rural*

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Background to the Study

Nigeria's local area development is crucial since it is the catalyst for economic expansion and the growth of local communities throughout all societies. The local area is made up of rural areas or villages, economic resources including natural resources, and economic activity like entrepreneurship and agriculture. According to Abdullateef, Yinusa, Danjuma, Abdul-Rasheed & Adeyemi (2017), improving a defined region's potential to raise its economic characteristic and residents' quality of life is one of the main goals of local area development. Economic inequality and inequities in development could be reduced by effective local development. In addition to boosting the flow of information between investors and developers, it may also increase the number of jobs produced locally, stimulate private sector investment locally as a whole, and improve the coherence and credibility of the metrics used to measure local economic strategy. This may also result in a more accurate diagnostic evaluation of the economic resources and unique advantages of local communities (Organisation for Economic Co-operation and Development, OECD, 2022). Even at the national level, the foundation for sustained and self-generative economic growth is laid by the development of rural communities. In order to attain local area development, which is now a must for all nations (Ntiwunka & Ayodele, 2021) it takes adequate resources.

Local governments could contribute meaningfully to the development of local areas in terms of delivering key infrastructure services like road and water transpiration, education and health. These could go a long way to enhance the deepening of local democracy, reduce internal regional tensions, especially in conflict-prone areas, encourage broader and deeper participation in public affairs by the citizens, and could foster confidence in the public sector in the country generally (Martinez-Vazquez & Smoke, 2011). Local government finance refers to the spending and revenue choices made by local governments within a federation. It includes the revenue sources used by local governments, including user fees, income, property, and sales taxes, as well as intergovernmental transfers and other levies. Along with public-private partnerships, finance for infrastructure, borrowing, and development fees are also included.

Nevertheless, there are numerous empirical research in this field. Does local government funding significantly affect human development in Nigeria? is the topic this article aims to address. In Nigeria, what way does local government budget affect life expectancy? Answering these queries served as the impetus for the paper's efforts to (i) investigate the effect of local government finances on human development in Nigeria and (ii) ascertain the effect of local government finances on life expectancy in Nigeria.

Theoretical Literature
Rostow's Stages of Growth Theory
American economist Walt (1960), developed this idea. According to Rostow's thesis on the stages of growth, every country must pass through a series of phases or stages in order to move from underdevelopment to development. The stages are the traditional society, the launch circumstances, the launch, the drive to maturity, and the period of high mass

consumption. Among these phases, takeoff is the most important. The transition from an underdeveloped to a developed state would be place at this stage for developing nations (Todaro and Smith, 2009). Rostow's phases theory is among the most widely accepted theories of development despite the challenges. It is possible to claim that this theory comes close to meeting specific requirements at various periods during its evolution.

Structural Change and Patterns of Development
Aspects of development Hollis Chenery's analysis of the structural change focuses mainly on the sequential process that would change the institutional, industrial, and economic structure of a developing economy over time, enabling new industries to take the place of antiquated traditional agriculture as a driver of economic growth. According to Hollis Chenery's patterns-of-development analysts, rising savings and investment are only essential but not sufficient conditions for the economy to flourish. Other associated forms of economic structural changes are required for the transition from the traditional economic system, in addition to capital accumulation (including human and physical capital) (Todaro and Smith, 2009). The limitations on economic development at home and abroad are a major focus of empirical structural-change analysts.

Domestic limitations include the availability of resources, the size of the nation's physical environment and population, as well as the kind of national development goals that the government has set. The accessibility of outside finance, technology, and international trade, on the other hand, are international limits. According to some, the local and global limitations that emerging countries experience are the cause of differences in the level of development among those nations. The differences in transition between now industrialized and developing countries are determined by international limitations. Aristizabal-Ramirez, Leahy, & Tesar, 2022; Todaro & Smith, 2009); structural changes can also occur as a result of changes in production, consumer demand composition, resource use patterns, international trade, and socioeconomic factors such as urbanization and changes in population growth and distribution. This model recognizes that developing countries are a part of a global network that has the potential to either accelerate or impede economic growth.

This approach is criticised on the grounds that it prioritises urban development over rural development, which can lead to a rise in inequality within a nation's internal regions. It is criticised for presuming that a society that is primarily agrarian experiences a labour surplus in the two-sector surplus model, introduced in the 1950s. Over the years, it has become clear that a labour shortage is a seasonal problem, and that shifting a labour excess from the rural to the urban sectors might probably bring about the demise of the agricultural sector of the economy. The lack of a theoretical foundation for the patterns-of-development analysis of structural change has drawn criticism (Emako, Nuru & Menza, 2022; Todaro & Smith, 2009).

Empirical Literature

In Nigeria, Braimoh & Onuoha (2022), investigated how local government councils generated revenue and how well they performed in local governance. Three local government units in Edo State were chosen for the study, and a sample size of 180 respondents, each with 60 personnel, was chosen at random. The study used descriptive methods to analyse the data, including frequency and straightforward percentages. It was discovered that insufficient local government revenue production impedes grassroots growth.

In Uganda, local government financial crisis and local governance were explored in Wakwabubi, Nkundabanyaga, Orobia, and Kaawaase's (2023) study of the local government delivery system's mediating function. For the study, a sample of 109 Ugandan local governments (districts) was chosen. The partial least squares structural equation modelling method was the data analysis method used. The study's findings demonstrated that the association between poor governance and financial distress was mediated by the way the government delivers its services. The results also demonstrated that in the local government system, the delivery system is more variable in its ability to produce financial strain than the governance.

Cao, Duan, and Ibrahim (2022), investigated the connection between China's underinvestment in A-share listed companies and the rise in local government debt. The sample years for the study were from 2011 to 2021. Data analysis was done using the ARDL (autoregressive distributed lag) method. The results demonstrated that the rising level of local government debt displaced enterprise loan funding, which then indicated the degree of enterprise underinvestment. It was discovered that for listed companies with relatively little fixed assets, a larger level of underinvestment was caused by the rise in local debt.

Pertiwi, Maksum, and Lumbanraja (2022), looked at how regional original revenue (PAD), general allocation funds (DAU), and special allocation funds (DAK) affected economic growth in Indonesia. For the study, a sample of 330 respondents was chosen. Descriptive analytic methods like frequency and straightforward percentages were used. The results demonstrated that PAD, DAU, and DAK concurrently had a considerable impact on economic growth. The strong favourable effects of PAD and DAU on economic growth were also discovered. On the other side, the results indicated that DAK partially had a major detrimental impact on economic expansion.

The impact of local government debt on green innovation was studied by Chen, Zhu, He, Yang, and Yang (2022) using Chinese listed companies. The study's time frame ranged from 2011 to 2019. It was discovered that a drop in corporate green innovation occurred with an increase in the standard deviation of the provincial debt-to-GDP ratio. Additionally, it was discovered that the crowding-out impact was more pronounced for businesses with less tangible assets and for provinces with weaker capacities for fiscal self-sufficiency. Additionally, it was shown that high local government debt made it

harder for businesses to finance their operations, increased the cost of borrowing money, and encouraged them to use "short-term debt for long-term investment."

Wijaya and Solikhi (2022), looked at the variables influencing the local government's financial performance in Indonesia. 11 municipal governments were chosen at random for the investigation. The descriptive technique was used to analyse the data. The study's conclusions demonstrated that the degree of regional wealth had a sizable favourable impact on the financial performance of the government. Additionally, it was discovered that capital investments significantly improved local government finances. Furthermore, it was discovered that intergovernmental revenue did not significantly improve the financial performance of local governments.

Between 2011 and 2017, Zhang and Jin (2022), investigated the effect of local government debt on business innovation. According to research, there is an inverse U-shaped connection between government debt and business innovation. The effect of local government debt on enterprise innovation was also found to be moderated by digital financing.

Uchechukwu and Obiora (2018), investigated how local governments might determine the revenue sources at their disposal and guarantee efficient administration of their finances to support rural development. The study was based on a case study of Umuahia's north local government area in Abia state. A descriptive analysis of the data was performed. The study's conclusions demonstrated a substantial relationship between rural development and the efficient use of local government funding, as well as a significant relationship between rural development and the improvement of that funding.

Fatile, Fajonyomi, and Adejuwon (2017), looked at the impact of state-local budgetary ties on local government development in a few chosen local governments in Lagos State. Using the questionnaire, the data was gathered. The data were examined using the descriptive statistics method, and the Pearson Product Moment Correlational analysis was used to evaluate the hypotheses. On the whole, the three tiers of government's revenue allocation modules were determined to have an impact on grassroots development.

Using Iwo Local Government as a case study, Murana (2016), investigated local government finances in Nigeria. The study makes use of information acquired through in-person interviews and readily accessible local government records. Descriptive methods, including content analysis and straightforward percentages, were used to analyse the data. The research revealed that Statutory Federal Allocation, a type of federal financial transfer, was the most practical and consistent source of revenue for local governments. Additionally, it was discovered that Nigerian local governments could not launch any capital projects without Federal Allocation. In Kaduna state, Nigeria, Kudan and Sabon gari local government areas were the subject of Umar's (2015) investigation of

the effect of local government revenue on service delivery. The two-yearly estimates and treasurer's reports of the local governments served as the data's main sources. The data was analysed using Pearson chi-square. The results demonstrated that efficient administration of local government revenue had a favourable influence on such efforts. The study also discovered a relationship between the calibre of services rendered and money generated. The whole 774 local government areas in Nigeria are taken into account in this macro analysis. Additionally, this study uses econometric techniques that accurately evaluate the genuine influence of local government budget on development-related components, which was not taken into account in other studies in Nigeria.

Model Specification

Examining how local government finances affect human development is the first objective. The local government's current revenue, loans, and overall spending are used to gauge local government finances in this study. On the other hand, the human development index quantifies human development. To analyse Objective 1, multiple regression analysis is utilised. The following is a specification of the model's functional form for objective one:

$$\text{HDI} = REV, \text{LOAN}, \text{TEXP}, \text{PGR} . \qquad . \qquad . \qquad (1)$$

Where:
HDI = human development index
REV = local government's current revenue
LOAN = local government total loan
TEXP = local government total expenditure
PGR = population growth rate

The econometric model is specified as:

$$\text{HDI} = b_0 + b_1 Log REV + b_2 Log\text{LOAN} + b_3 Log TEXP + b_4 PGR + u_t \ . \ . \ . \ (2)$$

Where all of the variables were as previously defined. Because the variables are in rate, HDI and PGR are not logged. The variables are logged in order to reduce the variance of the series (Luetkepohl & Xu, 2009). The incorrect phrase is "ut." It is necessary to estimate the parameters b0, b1, b2, b3, and b4. REV and TEXP have a positive a priori expectation, whereas LOAN and PGR can have a good or negative outcome. The model for estimation is found in equation (3.2). The model is intended to capture the first goal. To capture objective two, the following function form is specified;

$$\text{LEXP} = REV, \text{LOAN}, \text{TEXP}, \text{GDPG} \qquad . \qquad . \qquad . \qquad (3)$$

Where:
LEXP = life expectancy
REV = local government's current revenue
LOAN = local government total loan
TEXP = local government total expenditure
GDPG = real GDP growth rate

The econometric model is specified as:

$$LogLEXP = a_0 + a_1 LogREV + a_2 Log\text{LOAN} + a_3 LogTEXP + b_4 GDPG + e_t \quad (4)$$

Where all of the variables were as previously defined. The variable is in rate, hence GDPG is not logged. The incorrect term is et. The parameters that need to be estimated are a_1, a_2, a_3, a_0, and a_4. While LOAN might be either positive or negative, the a priori expectation for REV, TEXP, and GDPG is all positive. The estimation model can be found in Equation (3.4). The model is intended to capture goal number two.

Descriptive Statistics of the Variables

To learn more about the dataset, we checked the variables' descriptive statistics. The variables' means, standard deviations, maximum and lowest values, skewness, and kurtosis are taken into account as descriptive statistics.

Table 1: The variables for the study's skewness and kurtosis, as well as their means, standard deviations, maximum and lowest values

Variables	Obs.	Mean	Standard Deviation	Minimum value	Maximum value	P-value (Skewness)	P-value (Kurtosis)
HDI	29	0.5075	0.0601	0.3583	0.6310	0.6671	0.0842
REV	29	854.0728	693.7801	19.2231	1837.321	0.9011	0.0000
LOAN	29	28817.26	51099.53	11.00	220196.6	0.0000	0.0001
TEXP	29	852.2914	694.1477	18.9671	1837.921	0.8942	0.0000
PGR	29	2.5454	0.0698	2.44	2.6453	0.9799	0.0003
LEXP	29	49.58	3.2688	45.87	55.12	0.4419	0.0013
GDPG	29	4.1897	3.9117	-2.04	15.33	0.2980	0.2355

Source: Authors' Computation, 2023

The average values of the human development index, current revenue, total expenditure of local governments, population growth rate, local government expenditure, and real GDP growth are all within a few percentage points of the standard deviation. This indicates that the data values for the variables are roughly near to their respective means. Local government total loans, on the other hand, have a mean value that is significantly higher than its standard deviation value. The data values for the variable are likely to be significantly higher or less than their mean value if there is a significant difference between the mean value and standard deviation value. This indicates that the variable's data value is not (or not closely) centred on the mean value. The variables' minimum values are all below their respective mean values, whereas their highest values exceed those values. This shows that the variable data values are within the expected range, with some values dispersed above the mean values and some dispersed below the mean values. Therefore, there aren't any problems with outliers in the data values.

The probability value of local government loans is significant for the skewness at the 5% level. The null hypothesis of a normal distribution is rejected at the 5% level because the

skewness probability value is significant. The variable was either skewed to the right or to the left, according to this. The distribution is not equal throughout. Human development index, current revenue, total spending, population growth rate, and local government expenditure, on the other hand, displayed negligible probability values. The normal distribution null hypothesis is therefore accepted. This indicates a regularly distributed distribution of the data values. Real GDP and human capital development showed negligible probability values according to the Kurtosis. As a result, at the 5% level, the null hypothesis of kurtosis of a normal distribution is accepted. This indicates that the data for real GDP and human capital development significantly deviate from the tails of a normal distribution. However, the remaining variables, which are significant at the 5% level, show that the hypothesis of a normal distribution is false.

Unit Root Test
A regression model's time-series variables are tested for stationarity using the unit root. The stationarity of the time-series variables was examined using the Augmented Dickey-Fuller and Phillips-Perron tests.

Table 2: Augmented Dickey-Fuller and Philips–Perron unit root test results

Variable	Augmented Dickey-Fuller Result		Philips–Perron Result		Lag order	~I(d)
	Level	1st Difference	Level	1st Difference		
HDI	-2.797	-4.201*	-2.933	-4.751*	2	I(1)
LogREV	-0.574	-4.380*	-0.428	-5.646*	2	I(1)
LogLOAN	-1.774	-5.090*	-3.854	-10.554*	2	I(1)
LogTEXP	-0.616	-4.380*	-0.431	-5.605*	2	I(1)
PGR	-1.474	-4.380*	-1.440	-7.081*	2	I(1)
LogLEXP	-2.964	-4.380*	-3.171	-4.362*	2	I(1)
GDPG	-2.474	-4.663*	-2.689	-7.213*	2	I(1)

Where "*" indicates rejection of the unit root null hypothesis and significance at 5%. Using Akaike's Final Prediction Error (FPE) and information criteria, a lag duration of two was determined to be the ideal one. The ADF 5% critical value at levels is -3.596, while it is -3.600 at the first difference. Levels and the first difference have a Philips -Perron critical value of -3.588 and -3.592, respectively. Both the Augmented Dickey-Fuller and the Philips-Perron unit root test models indicated a trend.

Source: Authors' Computation, 2023

The Augmented Dickey-Fuller 5% critical value is greater than the corresponding test statistics for the variables when the variables were tested at level. This suggests that the variables' test statistics at each level were not significant. As a result, levels accept the unit root null hypothesis at a rate of 5%. The variables were therefore only differed once, and the test was once more run at the first difference. The test statistics for the variables increased above the crucial value of 5% at the first difference. As a result, the first difference rejects the null hypothesis that there is a unit root. The variables are stationary

at the first difference, according to this. They are first order integrated. The results of the Philips-Perron test also support this. None of the variables are level stationary. But after the first difference, every variable turned stationary.

Local Government Finance and Human Development
Examining how local government finances affect human development is the first goal. The variables in the model for objective one underwent a cointegration test prior to estimation to demonstrate the presence of a long-term relationship between the variables. The cointegration test by Johansen was applied, and Table 3 presents the test result.

Table 3: Result of Johansen test for cointegration

Maximum Rank	Eigenvalue	Trace Statistics	5% critical value
0	-	96.3517	59.46
1	0.8186	50.2508	39.89
2	0.5836	26.5931	24.31
3	0.47169	9.3650*	12.53
4	0.2171	2.7566	3.84
5	0.0970	-	-

Source: Authors' computation, 2023

Three significant trace statistics were discovered by comparing the corresponding trace statistics with the 5% critical levels. As a result, the model for Objective One has three cointegrating equations among the variables. Consequently, the null hypothesis that there is no cointegration is rejected at the 5% level. As a result, the variables in the equation for Objective One also have a long-term relationship. Using the OLS method, the model for goal one was estimated to show the effect of local government finance on human development.

Table 4: Estimations of how local Government Finances Affect Human Development

HDI	Coefficients	Standard Errors	t-statistic	P-value
LogLOAN	-0.0111	0.0526	-2.11	0.044
LogTEXP	0.2449	0.6205	0.39	0.697
LogREV	0.2402	0.0709	3.39	0.000
PGR	-0.4680	0.1619	-2.89	0.000
_cons	1.5773	0.5846	2.70	0.000
R-Squared	0.8442			
Adj. R-Squared	0.7182			
F (4, 24)	41.94 (0.0000)			
Durbin-Watson d-statistic (5, 29)	1.5496			
Breusch-Godfrey LM chi3	0.231 (0.9014)			

Source: Authors' Computation, 2023

The local government loan coefficient is -0.0111 and has a t-value of -2.11. The 2-t rule of thumb is used to reject the null hypothesis that local government total loans have no substantial impact on human development at the 5% level because the t-value of -2.11 is bigger than 2 in absolute terms. There is an insignificant error in rejecting the null hypothesis at the 5% level, according to the significant probability value of 0.044. This implies that local government borrowing generally has a big impact on human development. Increases in local government total loans specifically cause a significant 0.01 percent decline in human development.

Total local government spending contributed to human development in a positive and negligible way. The positive but small coefficient for overall expenditures by local government serves as evidence of this. Therefore, at the 5% level, the null hypothesis that local government total expenditure has no discernible impact on human development is accepted. The null hypothesis is accepted in accordance with the probability value of 0.697, which indicates that there is no appreciable error in doing so. Human development increases by a negligible 0.24 percent for every dollar that local governments spend more overall. With a t-value of 3.39, the local government's current revenue coefficient is 0.2402. This implies that a 0.24 percent increase in local government current revenue results in a significant 0.24 percent gain in human development. The t-value is statistically significant, hence the null hypothesis—that there is no meaningful relationship between local government current revenue and human development—is rejected at the 5% level. The null hypothesis' rejection is likewise not significantly erroneous, as indicated by the probability value of 0.000. As a result, existing local government revenue statistically significantly influences human development.

Human development is negatively and significantly impacted by population expansion. Human development is significantly reduced by 0.47 percent as population growth rates rise. We can reject the null hypothesis at a level of 5% because the t-value and p-value are significant. The independent variables' capacity for explanation is gauged by the coefficient of determination (R^2). Our result's R^2 is 0.8442, which indicates that the model's variables may account for an 84.42 percent difference in human development. Given that the probability is less than 0.05, the F-statistics (4, 24) value of 41.94 (0.0000) is significant. We therefore claim that the model's variables as a whole considerably influence human development. The value of the Durbin-Watson d-statistic (5, 29) is 1.5496. We consequently draw the conclusion that the model's variables have no autocorrelation because this value is around 2. Additionally, the variables don't have any autocorrelation, according to the Breusch-Godfrey LM chi2 test, which had test statistics and negligible probability values of 0.231 and 0.9014.

Multicollinearity Test
The variables' multicollinearity was examined using the Variance Inflation Factor (VIF) test. Table 5 displays the outcome.

Table 5: Variance inflation factor (VIF) test estimates for multicollinearity

Variable	VIF	1/VIF
LogTEXP	2.18	0.458716
LogREV	3.34	0.299401
LogLOAN	5.57	0.179394
PGR	2.64	0.379449
Mean VIF	3.43	

Source: Computed by the researchers, 2023

If any variable's value is larger than 10, multicollinearity ends, and if it is less than 10, there is no multicollinearity. The VIF values of the variables are fewer than 10 according to the test. This demonstrates the absence of multicollinearity. Since there is no multicollinearity, we accept the null hypothesis. As a result, we may claim that the variables don't have the multicollinearity issue.

Heteroskedasticity Test
The heteroskedasticity of the variables was evaluated using the Breusch-Pagan/Cook-Weisberg test. The outcome is displayed in Table 6.

Table 6: Estimates of Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
chi2(1)   =   0.14
Prob > chi2 = 0.7036

Source: Computed by the authors, 2023

The p-value is statistically negligible after the test result; hence the null hypothesis of constant variance is accepted. This demonstrates the homoskedasticity of the variables. Additionally, this indicates that the variables in the model for Objective 1 do not exhibit heteroskedasticity; rather, the variance is constant.

Local Government Finance and Life Expectancy
Examining how local government finances affect life expectancy is the second goal. The variables were subjected to a cointegration test before the model for goal two was estimated to demonstrate the presence of a long-term relationship between the variables. Table 7 displays the test result for the cointegration using the Johansen test.

Table 7: Result of Johansen Test for Cointegration

Maximum Rank	Eigenvalue	Trace Statistics	5% critical value
0	-	77.6405	59.46
1	0.6658	48.0449	39.89
2	0.6306	21.1561*	24.31
3	0.4241	6.2563	12.53
4	0.1664	1.3423	3.84
5	0.0485	-	-

Source: Authors' computation, 2023

Two statistically significant traces were discovered when comparing the corresponding traces to the 5% crucial levels. This means that the second-goal regression model contains two cointegrating equations. Therefore, the lack of cointegration cannot be assumed, and the null hypothesis is rejected at the 5% significance level. The variables in the model for criterion 2 are therefore assumed to be related over the long term.

The second goal required us to estimate a model using the OLS method so that we could see how municipal spending affected longevity. Table 4.8 presents the estimated value.

Table 8: Estimates of the impact of local government finance on life expectancy

LogLEXP	Coefficients	Standard Errors	t-statistic	P-value
LogLOAN	-0.0025	0.0039	-0.63	0.534
LogTEXP	0.2106	0.0548	3.84	0.000
LogREV	0.2469	0.0620	3.98	0.000
GDPG	0.0067	0.0011	5.88	0.000
_cons	3.6892	0.0206	178.98	0.000
R-Squared	0.8963			
Adj. R-Squared	0.8790			
F (4, 24)	51.84 (0.0000)			
Durbin-Watson d-statistic (5, 29)	1.9701			
Breusch-Godfrey LM chi3	1.611 (0.2044)			

Source: Authors' computation, 2023

A t-value of -0.63 indicates a coefficient of -0.0025 for local government loans. According to the 2-t rule of thumb, the null hypothesis that the total loan from local governments has no effect on life expectancy is rejected at the 5% level when the t-value is less than 2. Rejecting the null hypothesis at the 5% level would be a small mistake due to the substantial probability value of 0.534. Therefore, it may be concluded that overall government borrowing has a major impact on longevity. Specifically, a drop in life expectancy of around 0.003% can be attributed to an increase in the total debt taken out by local governments.

Total expenditure by local governments has a considerable and favourable effect on life expectancy. The overall expenditure by local governments has a positive and statistically significant coefficient, indicating this. Therefore, at the 5% significance level, we reject the null hypothesis that total local government spending has no effect on life expectancy. There is insufficient evidence to rule out the possibility of a serious mistake in rejecting the null hypothesis because it is consistent with the suggested probability value of 0.000. Life expectancy rises by 0.21 percent for every 1 percent increase in overall spending by local governments.

Current revenue from local governments has a t-value of 3.98 and a coefficient of 0.2469. This suggests that a 0.25 percent increase in local government current revenue has a substantial impact on life expectancy. The null hypothesis that there is no relationship between local government current revenue and life expectancy is rejected at the 5% level due to the statistically significant t-value. If the likelihood is 0.000, then rejecting the null hypothesis would be a huge mistake. Thus, the current revenue of local governments has a statistically significant effect on life expectancy. The pace of increase in real GDP is significantly related to average lifespan. Life expectancy rises by a noticeable 0.01 percent for every percentage point increase in the real GDP growth rate. We can confidently reject the null hypothesis at the 5% level due to the large t-value and small p-value.

With an R^2 of 0.8963, the model's variables adequately explain the variance in life expectancy by roughly 89.63 percent. A probability of less than 0.05 indicates statistical significance with an F-statistics (4, 24) value of 51.84 (0.0000). The model's variables have a large, combined effect on longevity. The value of Durbin-Watson d(5, 29) is 1.9701. We can conclude that there is no autocorrelation between the model variables because this value is close to 2. Additionally, the Breusch-Godfrey LM chi2 test revealed that there is no autocorrelation between the variables, with a test statistic and negligible probability value of 1.611 and 0.2044, respectively.

Multicollinearity Test
It was determined whether the variables were multicollinear by using the Variance Inflation Factor (VIF) test.

Table 9: Estimates of the Variance inflation factor (VIF) test for multicollinearity

Variable	VIF	1/VIF
LogTEXP	2.25	0.444444
LogREV	4.17	0.239808
LogLOAN	5.38	0.185722
GDPG	1.08	0.924868
Mean VIF	3.43	

Source: Computed by the researchers, 2023

According to the results, no multicollinearity exists because all of the VIF values for the variables are less than 10. Therefore, we take the alternative hypothesis of

multicollinearity into account. In other words, multicollinearity is not an issue due to the independence of the variables. The outcome of a Breusch-Pagan/Cook-Weisberg test for heteroskedasticity of the variables is also presented below.

Heteroskedasticity Test
To check if the variables were heteroskedastic, the Breusch-Pagan / Cook-Weisberg test was applied. Table 10 displays the final outcome.

Table 10: Estimates of Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
chi2(1) = 0.67
Prob > chi2 = 0.4137

Source: Computed by the authors, 2023

The resulting p-value is not statistically significant; thus, we accept the null hypothesis that the variance has remained constant. The variables are, thus, homoskedastic. This also implies that the variance of the variables in the objective one model is constant and that there is no heteroskedasticity.

Conclusion and Recommendations
The impact of local government spending on growth in Nigeria has been subject to research. The findings suggest that elevated levels of local government debt hinder progress. It is plausible that local government loans were not employed effectively to attract investments. Local governments total expenditure, local governments current revenue, and the real GDP growth are positive determinants of development. They play key role in development process. High population reduces development, especially if the population is more of dependent or lack of investment in terms of human capital development programmes by the government. In general, local government finance (except local government loan) enhances development. The paper recommended that: Local government autonomy is recommended. With local government autonomy, federal allocation (revenue) as well as other revenues will come direct to the local governments and not through the state governors. This will ensure higher revenue for the local governments to carry out development-oriented projects and programmes. We also recommend increase in local government expenditure. This could be facilitated by private sector partnership in financing developmental projects and programmes. Local government loans by the local governments, as well as population growth should be discouraged because loans and population growth had neagtive impact on the development of local communities in Nigeria.

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