Taxation and Agricultural Financing: Perspective from Niger State Local Government Assessment

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Abstract
This study examines the effect of taxes' income on agricultural financing in Niger state local government. Three local governments from each of Niger State's three senatorial/ geopolitical zones were selected. Data was gathered from the Niger State Local Government Commission, Niger State Ministry of Local Government and Chieftaincy Affairs. Panel data model components such as pooled regression, fixed effect model, Random effect model, and FGLS as well as Hausman test were employed in the study. The heteroskedasticity, VIF and Pearson Product Moment correlation were also employed to determine the multicollinearity in the variables employed. Findings revealed that tenement rate, and market fees have favourable and considerable impact on agricultural financing but development levy, hawkers permit and slaughter slab had positive but weak significant effects on agricultural Financing in all sampled Local government in Niger state. It was concluded taxation had positive impacts but weak significant on agricultural financing in Niger State local governments. This is to the fact that agricultural sector has drastically been neglected due to the insecurity of both human and materials, and nonchalant attitude of the farmers. It is recommended that Local government should device means of providing security for the loan and farmers for easy recouping of loan given to all the farmers for effective utilization and repayment. Also, monitoring should be given to the collection of taxes revenue in order to bring more taxpayers into tax net for enhancement of tax revenue and financial assistance to the local government and farmers respectively.

Key Words: *Agricultural financing; Tenement Rate; Development Levy; Hawkers Permit; Market Fees; Forestry Fee; Slaughter Slab*

Introduction

Tax is a non-negotiable payment but forcefully collected from corporate entities and individuals by the government with different rate according to the tax law which is not made in exchanging for direct purchase of goods and services (Adegbite, 2019; Adegbite, 2020; Akoyeke et al., 2022). The desired direction of the economy and the government's assessment of the citizens' standard of living are also taken into consideration when determining the basis tax rates and the time period for paying the tax. However, tax income apart from oil revenue is the primary factor that influences the budgetary expenditure on the projects or programs to be implemented by the government. For this reason, taxes are regarded as a tool for generating money for governments and a tool for shaping fiscal policy in every country (Adegbite & Olatunji, 2021; Akoyeke et al., 2022)). Taxes are not directly paid based on an exchange contract like other payments, with the exception of government-funded subsidies.

Taxes generate more revenue to expend on necessary expenditures without resorting to excessive borrowing from the other sector. It also generates revenue in a dispassionate manner which diminishes its disincentive impacts on economic activity without departing from international norms and practices. Taxation, which is the means of generating resources for government responsibilities fulfilments such include infrastructure, security, social amenities, and agricultural services provisions. Agriculture is regarded as the fundamental cornerstone of any economy, and foundation of a strong rock economy with the capacity to explore its potentials and opportunities using natural resources particularly in Africa (Egwu, 2016; Ezu, 2023). In the most developed economy, agriculture is essential and germane to national development. It is viewed as a way to lessen an economy's overdependence on certain sectors or economic activity, such as the oil industry with the potential benefits of gaining from increased exportation rates, improved foreign exchange, the creation of job opportunities, lower levels of poverty, and contributions to economic progress (Chiogor et al., 2023; Oladipo et al., 2019). In 1960,70% of Nigerian exports are attributed to the agricultural sector. Later, in the late 1970s, this dropped to 40% before progressively falling to 2% in the late 1990s (CBN, 2019). Recently, agriculture is only practiced on a limited scale that is only 40% of Nigeria's land area is farmed and used for agriculture, despite the fact that Nigeria has been noted as one of the top nations with abundant natural resources. Majority of Nigerians have disregarded the agricultural sector because of inadequate finance to procure modern equipment and the priority

of white-collar jobs. Farmers lack motivation because of inadequate financing, poor transportation due to poor roads, and a lack of markets (people rather import foods).

The essence of collecting taxes in local government across the country is to generate revenue for effective implementation of local government expenditure. One of the expenditures which is consider viable to local government resident is development of agriculture services. The income generated by local government has been expended on the provision and improvement of agricultural services in each local government on procuring tractors, insecticide, fertilizer, and other necessary equipment to discard primitive method of farming. Despite the effort of the government locally on the improvement of agriculture services in each local government, the agricultural outputs have not improved as expected. In 2010, Niger state compulsorily mandate all local governments to expend more than 50 percent of their income on agriculture, nevertheless, the outputs are still not encouraging. But, agriculture have been progressively incorporated into the country's general taxation structure as agricultural activity has become a profitable and lucrative industry (Izvoranu, 2022b). Due to this feature, agriculture' chances of being viable in local government have been altering concurrently. In light of these adjustments, it is essential to evaluate how taxes affect agricultural outputs. Therefore, the pertinent motive of this study is to examine the impact of taxation on agriculture financing in the local governments of Niger state, Nigeria.

Literature Review

Why Taxation is imperative in Nigeria Local Governments

According to Adegbite & Shittu, (2018), taxation significantly contributed to revenue generated in all the tiers of Nigeria government. The urgent needs for all the governments to generate sufficient revenue inwardly has become necessary and important especially the local government. According Ganyam & Ivungu, (2019) taxation cannot be regarded as the most imperative revenue source to local government in terms of enormousness of revenue realisable monthly but it is the most significant revenue source by the government because of its consistency and certainty. According to Adegbite & Shittu, (2018), local governments are expected to raise money from market rate, sale of real estate, capitation, flat rate, and other types of taxes within their jurisdictions. Income realised from taxation in local government has been employed to establishing and financing capital expenditure, daily recurrent expenditure,

provide security, infrastructural facilities, social amenities, and to financing agricultures in areas like tractor procurement, fertilizers procurement, and provision of loans for farmers in order to enhance their farm productivities for the country residents (Adegbite & Akande, 2017). In addition, taxation policies' potential is to solve variety of obstacles to high productivity of agricultural output which are analysed in conjunction with governments in order to financing expenditures for expansion of agricultural infrastructure and outputs productivity.

Agricultural Financing

Agricultural financing is defined as the delivery of numerous categories of services devoted to supporting farm agricultural businesses and activities which includes input production, provision and distribution, processing, marketing and wholesale (Francis, 2020). Agriculture financing is a long-term financing with the aims at persuading agriculture-led development and growth in the country. According to Oladipo et al., (2020), local government was created all over the world to support government locally in terms of development which are visible on social, political and economic, development. In Nigeria, it was established to aid the development at local level, and provided with legal protections as well as statutory and institutional protections needed to act as a tier of government for effective and efficient administration and functions. Also, local governments are established to ultimately and directly provide services, and facilitate projects to complement and enhance the actions, efforts and potency of both the State and Federal governments in terms of development, financing and empowerment. Financing of local agriculture has been seen as one of the essential responsibilities of any local government administrators in order to increase foods productions and to create employment opportunities.

Government is absolutely committed to agricultural sector due to the facts that every nation are absolutely depended on agricultural sector which is also stipulated in policy documents. Agricultural policy accentuates the significant development and growth of agriculture in sustainable ways. Establishing, maintaining, and regulating slaughterhouses, slabs, marketplaces, gardens, and parks are among the local government duties in the agricultural sector. It also takes part in the development of agriculture and natural resources other than those used to extract minerals. According to Egwu, (2016), the updated policy is in line with the

original but emphasizes the roles and duties of the three levels of government in jointly funding agricultural extension. The strong and stable financial potency is necessary, pertinent and sacrosanct for local government to effectively provide agricultural financing especially on agricultural development fund which needs to effectively sourced, used, and maintained.

Tenement Rate (TENRATE)

A tenement rate is a charge imposed and collected by local government on a developed and occupied property. It is a rate or tax assessed against property owners or occupants (Adegbite & Shittu, 2018). An empty, uninhabited, or undeveloped parcel of property is not subjected to tenement rate levies or charges. Usually, the tax rate is imposed on private or non-public property. All land and buildings used solely for public worship, cemeteries, burial grounds, registered public institutions certified as not profit making, all palaces of recognized traditional rulers are examples of property on which tenement rate is not levied by local authority. From a financial perspective, tenement rates form a source of revenue for the local government authority which invariably has solid impact on both recurrent and capital expenditure of each local government (Adegbite & Akande, 2017). Tenement rate has been discovered having positive effect on revenue generation of local government (Adegbite & Ishola, 2022; Adegbite & Shittu, 2018; Akoyeke et al., 2022; Izvoranu, 2022). Hence, it is expected and postulated that:

HO[1]: Tenement rate enhances agricultural financing significantly and positively in Niger State Local Government

Market Fees (MAKFEE)

This is the amount of money payable by any user of any facility in the market for purpose of transaction of goods and service. The payment justified the usage of facilities like electricity in the market, water supply, shops and others which are collected by market operators who are saddled with the responsibility of collecting the taxes income on behalf of local government. This tax are collected with the assistance of law enforcement agencies such as police. According to Izvoranu, (2022), market taxes are collected by the local government to financing both the current expenditure such as agricultural financing, building of schools, bridge constructions, procurement of tractors, road maintenance, and recurrent expenditure such as payment of salaries, education financing fertilizers procurement, and agricultural financing. It

was confirmed that market fee had positive significant effects on revenue generation of local government Adegbite & Akande, 2017; Akoyeke et al., 2022; Izvoranu, 2022a; Okoh et al., (2023) but significant effect on agriculture was advocated by Chiogor et al., 2023; Ezu, 2023; Ganyam & Ivungu, (2019). Therefore, it is hypothesized that:

HO²: Market fee enhances agricultural financing significantly and positively in Niger State Local Government

Development Levy (DEVPLEVY)

The amount of money payable by the parents as an agreed but non-refundable contribution to the school developmental costs. Development levy is charged through LG planning authority for all the new developments within their jurisdiction. This levy is regularly required to be paid before issuance of building permit. This payment is paid by those who purchased land whether from customary, private sources or state which is fixed by authority of LG. This money is designed to financing of sectors in local government such as empowerment through provision of agricultural capital equipment for famers and the likes (Adegbite & Shittu, 2018). It was further advocated that development levy possessed positive significant effect on local government revenue (Adegbite & Shittu, 2018; Ezu, 2023; Iyoha, 2020; Oladipo et al., 2019). It is also hypothesized that:

HO³: Development Levy enhances agricultural financing significantly and positively in Niger State Local Government

Slaughter Slab fee (SLAUSLAB)

Slaughter slab fee is the amount received from any sector that is licence and permitted by the authority of local government with the sole motive of dressing and slaughtering of animal for human consumption (Adegbite, 2017). This income is forcefully collected daily abattoirs, and slaughterhouses for effective upkeeping of local government disbursement. It is expected to generate revenue for local government because of daily slaughtering of many cow and other domestic animals which invariably enhances income expended by local government on agricultural financing in their respective local government jurisdictions. Therefore, it is believed that:

HO⁴: Slaughter Slab fee enhances agricultural financing significantly and positively in Niger State Local Government

Hawkers Permit (HAWPMF)

Hawker or peddler refers to any person, agent or principal who travels from location to another location, or from a town to another town to selling products either through on foot or a vehicle. Every state, or local government enacted law to restrict the hawkers from selling products without hawking permit which grant them full permission on transaction within the state and local government. It was advocated by extant literature that hawking permits also generate enormous revenue for the government (Adegbite & Akande, 2017; Akoyeke et al., 2022; Izvoranu, 2022a; Okoh et al., (2023) but significant effect on agriculture was advocated by Chiogor et al., 2023; Ezu, 2023; Ganyam & Ivungu, (2019). According to Adegbite & Ishola, (2022); and Adegbite & Shittu, (2018), hawking permit revenue is positively significant to revenue generation and expenditure of government. This indicates that government also employed hawking permit revenue to financing many sectors in the state and local government. Such income is descended on sectors like education, health, security and agricultural financing. Therefore, it is propounded that:

HO⁵: Hawking Permit fee enhances agricultural financing significantly and positively in Niger state Local Government

Forestry Fee (FORFINE)

Grant and premium programs that are intended to develop and enhance the growth of the forest estate fall within the purview of the forest service. Applications must be filed in compliance with established scheme rules and processes in order to be approved and receive funding. To maintain standards and guarantee that grants and premiums requested are eligible for payment, the department employs a risk-based inspection process. The penalty schedules described in this document lessens the need to examine every site and enable inspection rates to be reassessed in light of the degree of compliance with each of the penalty categories specified below. All applications for approval, grants, and premium claims submitted on or after January 1, 2015 are subjected to the implementation date for the enforcement of penalties indicated in this document. The terms and conditions of schemes at the time of approval, earlier penalty schedules, and any letters of approval given shall all be taken into account when determining

whether a penalty will be levied to plantations formed prior to the implementation date. This penalty which is determined by the authority of forestry department generated significant influence on local government revenue. Forestry fee has been confirmed having connection with revenue generation in the local government which its revenue has also been engaged in financing sectors such as agriculture (Chiogor et al., 2023; Ezu, 2023; Ganyam & Ivungu, (2019). Consequently, it is assumed that

HO⁶: Forestry Fee enhances agricultural financing significantly and positively in Niger state Local Government

Theoretical Framework

Benefit Principle Theory

This theory was propounded by Knut Wicksell (1896) which was later reviewed by Erik Lindahl (1919). The theory stated that the state should compulsorily levy taxes on citizen in accordance with benefit conferred on each individual. The more the benefits an individual realized from the state activities, the more the individual should pay as tax. The choice of payment of tax and service received are within the purview of the taxpayers. Therefore, government must provide worthwhile services in order to tap revenue from the populace. This principle is subjected to criticism. The assumption paying tax by an individual in accordance to benefits realized from the state is fairly unrealistic due to the fact that the benefits derived correctly immeasurable monetarily which is purely a subjective matter without any scientific methods of gauging the magnitude monetary values of the benefits. This is clearly unjust and unacceptable proposition because if benefits amassed by individual is gauge the tax payable, poor must pay higher taxes more than the rich because poor individual should get more benefits from the expenditure of the Government than the rich. The motive of government on equitable distribution of wealth is derailed if this theory/ principle is implemented.

This study anchored on this theory because there is contractual agreement between the state and the taxpayers on the collection of tax and receiving of benefits respectively. Government collects tax to provide certain essential services for the populace such as education, road construction, public goods provision and financial assistance in terms of loan for self-development and empowerment.

Empirical Review

Okoh et al., (2023) evaluated tax revenue impacts on Nigeria agricultural output expenditure from 1980 to 2022. Data sourced from CBN, FIRS and World Bank which were analysed with OLS divulged that tax revenue has negative and insignificant effect on Nigeria agricultural output. But government expenditure displayed positive significant effect on agricultural output. The study finally concluded that tax revenue significantly and positively impacted Nigeria agricultural output. The study coverage was the federal tax revenue on agricultural financing as distant from the current study on Niger state local government tax revenue which possessed different policy on agricultural financing. In the same vein, Chiogor et al., (2023) analyzed macroeconomic effect on agricultural financing reforms in Nigeria from 2010 to 2019. Time series data sourced from CBN, NBS and World Bank were analysed with Simulation Designs and t- test. The study discovered that agricultural financing reforms positively impacted on Nigeria economic growth significantly. This study covered entire Nigeria as distinct from the current study which is confined to Niger state local governments.

Omodero & Ajetunmobi, (2023) investigated direct taxation effect on Nigeria agricultural financing. Secondary data were garnered from CBN Statistical Bulletin from 2012 to 2021. The results from multiple regression demonstrated that direct taxes had insignificant effect on Nigeria agricultural funding. The study is streamlined to the whole country as against the current study on local governments in Niger state. Therefore, the policy implication is indifferent.

Ezu, (2023) also examined agricultural financing impact on Nigeria economic growth. The study further examined agriculture loan effect of farmers on gross domestic product. Data collected from CBN were analysed with OLS, correlation and Granger Causality Test. Finding showed that farmers' agriculture loan possessed positive significant on economic growth in Nigeria. The study was majorly on agricultural financing and economic growth which is not in line with the current study on local government tax revenue and agricultural financing in Niger state Nigeria.

Akoyeke et al., (2022) appraised tax farming effect on Nigeria tax revenue collection. Monthly data were sourced from annual accounts/financial statement for sixty months from 2013-2018.

The results from t-test, and Augumented Dickey Fuller (ADF) tests employed for analysis showed that positive significance of tax farming on tax revenue. The study concluded that tax farming had positive significant impact on tax revenue. The study was on tax farming and tax revenue of federal government as not in tandem with the current study in Niger state. Therefore, the outcome is irrelevant to the policy of local governments. Francis, (2020) examined the relationship amid Nigeria economic growth and agriculture financing from 1981 to 2016. Data sourced from CBN were analysed using regression analysis and causality test. It was discovered in the study that Uni-directional causality existed amid economic growth and agricultural financing. It was further explained that economic growth granger- caused agricultural financing. The study focused the relationship amid Nigeria economic growth and agriculture financing but not on tax revenue and agriculture financing which is a focus of the current study.

Oladipo et al., (2019) examined the impact of total tax revenue on agricultural performance in Nigeria. The study used Engel and Granger approach to cointegration to establish the long- and short- run behavior. It was found that a positive and significant relationship exists between revenue obtained from agricultural sector. The study further realised that total tax generated and employment were insignificant in the short run but statistically significant in the long run. The study engaged the whole Nigeria tax revenue and agricultural performance with involvement of Engel and Granger approach as not in consonance with the current study on agricultural financing and local government study with involvement of panel data analysis.

Ironkwe & Ndah, (2016) looked into the impact of locally generated income on local government performance in River State. Two questions and two hypotheses were developed to serve as the study's guiding principles. The study used an ex-post facto research strategy, often known as a causal compilation approach. The local government council of Ogba/egbema/ndoni was specifically chosen for the investigation. Data from the council's financial statements from 2006 to 2013 that were obtained from the local government's auditor general's office were used for the statistical analysis. The hypotheses were tested using statistics analysis. The study's key finding was that tax income had an unstable impact on building and maintaining roads. Although tax revenue has little impact on building and maintaining roads, the study found that both tax and non-tax revenue are essential components in enhancing local government performance.

Nicais (2019) investigated how agricultural loans affected underdeveloped nations. The dissertation's goal is to examine the function and significance of microfinance in the agricultural sector of developing nations. A study of 750 agricultural households was conducted in both rural and urban Benin in October 2017. The North-East (cotton zone), the Center (tubers and cashew nut zone), and the South (all three diverse agricultural zones) were chosen (a region with special crops such as vegetables, pineapple, palm tree, exotic plants). This investigation focused on agricultural loans. It consists of customers of the main microfinance organization in Benin.

Adegbite (2019) looked into how taxes affected investment in Nigeria from 1970 to 2018 as a baseline. Particularly from the federal Inland Revenue agency bulletins from 1970 to 2018 and the central bank of Nigeria's CBN statistical bulletins, pertinent secondary data were gathered. Technique for regression analysis. The long-term relationship and causality between the variables were ascertained using the units root test, Johansson co integration, vector error-correction model, and granger causality test. The findings indicate that while corporation income tax, customs, and excise duties had an influence on investment in Nigeria, PPT and value added tax had a positive noticeable impact on INV both in the short term and in the long term. Anything but corporate income tax. Corporate income tax significantly impacted investments in a negative way over the long and short terms.

Ayanduba and Aronwman (2015) looked into the impact of federal tax revenue on infrastructure development in Nigeria. Data collected from CBN statistical bulletin were analysed with error correction model. The results demonstrated taxation had significant influence on Nigerian infrastructure development. As previously stated, the study only looked at federal taxes collected which was not included local taxes because the variables involved were time series which was analysed with error correction model as absolutely negated by the current study on tax revenue and agricultural finance with panel data analysis. Dethier and Effenberger's (2012) study was on the relationship amid agriculture and development in low-income nations. According to the study, agricultural sector contributed significantly to the economies of nations examined. Agriculture contributed to poverty reduction and income growth in emerging countries. The study was majorly focused low-income nation as against the current study on Niger state, a state in Nigeria.

Most of the reviewed studies were carried out in Nigeria but majority of the studies examined the effect of agricultural output on Nigeria economy (Akoyeke et al., 2022; Chiogor et al., 2023; Ezu, 2023; Iyoha, 2020; Nicais(2019); Adegbite (2019); and Ayanduba & Aronwman (2015). But few of the studies analysed the effect of taxation on agricultural outputs (Okoh et al., 2023; Oladipo et al., 2019; and Omodero & Ajetunmobi, (2023) but this study majorly focused on local government financing on agriculture employing tax revene genrated inwarly which is confined to Niger state. Also, the extant researchers employed time series analysis to achieve individual motives such as regression analysis, granger causality test, and cointegration analysis but Panel data model components such as pooled regression, fixed effect model, Random effect model, and FGLS as well as Hausman test heteroskedasticity, VIF and Pearson Product Moment correlation were employed to determine the multicollinearity in the variables employed in this study which made the study distinct among the existing ones.

Methodology

For this study, secondary sources of data were used in order to maximize and fully grasp the value of variables. Data was gathered from the Niger State Local Government Commission (NSLGC). Niger State Ministry of Local Government and Chieftaincy Affairs (NSMLGCA). Three local governments from each of three senatorial geopolitical zones in Niger State were selected. Panel data analysis components which include pooled regression, fixed effect model, Random effect model, and FGLS as well as Hausman test were employed in the study to analyse the data to determine the impact of taxation on agricultural financing. Heteroskedasticity and VIF were also employed to determine the multicollinearity in the variables employed while Pearson Product Moment correlation (PPMC) was also involved to determine the relationship among the variables.

Model Specification

This model was used to examine the taxation effect on agriculture financing amongst the local government of Niger state. Agriculture financing (AGRIFIN) is taken as dependent variable while tenement rate, **s**laughter slab, development levy, forestry fines, market fees, and hawker permit fees are considered as independent variables. This refers that agriculture financing is a

function of local government taxes employed in this study. The functional econometric model between direct taxes and agriculture financing as stated thus:

AGRIFIN = f(LOCAL GOVERNMENT TAXES, µ)　　　　　　　　　**(1)**

AGRIFIN=f (TENRATE, MAKFEE, DEVPLEVY, SLAUSLAB, HAWPMF, FORFINE, μ)　　**(2)**

$$\sum_{i=1}^{n} AGRIFIN = a0 + \sum_{i=1}^{n} a1TENERATE + MAKFEE + \sum_{i=1}^{n} aDEVPLEVY + \sum_{i=1}^{n} a4SLAUSLAB + \sum_{i=1}^{n} a5HAWPMF + \sum_{i=1}^{n} a6FORFINE$$
$$+ \mu \quad (3)$$

Fixed Effect model

$$Y_{it} = \beta_0 + \beta X_{it} + u_{it} \tag{4}$$

$$AGRIFIN_{it} = \beta_0 + \beta_1 TENRATE_{it} + \beta_2 MAKFEE_{it} + \beta_3 DEVPLEVY_{it} + \beta_4 SLAUSLAB_{it} + \beta_5 HAWPMF_{it} + \beta_6 FORFINE_{it} + y_2 E_2 + \ldots + y_n E_n + u_{it} \tag{5}$$

$$AGRIFIN_{it} = \beta_0 + \beta_1 TENRATE_{it} + \beta_2 MAKFEE_{it} + \beta_3 DEVPLEVY_{it} + \beta_4 SLAUSLAB_{it} + \beta_5 HAWPMF_{it} + \beta_6 FORFINE_{it} + y_2 E_2 + \ldots + y_n E_n + \delta_2 T_2 + \ldots + \delta t T_{t-1} + u_{it} \tag{6}$$

Random Effect Model

$$Y_{it} = \beta_0 + \beta X_{it} + u_{it} + \varepsilon_{it} \tag{7}$$

$$AGRIFIN_{it} = \beta_0 + \beta_1 TENRATE_{it} + \beta_2 MAKFEE_{it} + \beta_3 DEVPLEVY_{it} + \beta_4 SLAUSLAB_{it} + \beta_5 HAWPMF_{it} + \beta_6 FORFINE_{it} + \gamma_2 E_2 + \ldots + \gamma_n E_n + u_{it} + \varepsilon_{it} \tag{8}$$

FGLS Model

$$\beta FGLS = (X^I \Omega^{\wedge -1} X)^{-1} X^I \Omega^{\wedge -1} y \tag{9}$$

$Var(\beta^\wedge FGLS \, jX)$ as

$$(X^I \Omega^{\wedge -1} X)^{-1} \tag{10}$$

Results and Discussion

Table 1: Correlation Matrix

VARIABLES	AGRIFIN	TENRATE	DEVPLEVY	HAWPMT	MAKFEE	SLAUSLAB	FORFINE
AGRIFIN	1.0000						
TENRATE	0.1497	1.0000					
DEVPLEVY	0.1083	0.3051*	1.0000				
HAWPMT	0.1264	0.3087*	0.5055*	1.0000			
MAKFEE	0.1390	0.5819*	0.5524*	0.6252*	1.0000		
SLAUSLAB	0.1628	0.3941*	0.6014*	0.5436*	0.6810*	1.0000	
FORFINE	0.0292	0.1966	0.3023*	0.2734*	0.2210*	0.0918	1.0000

Source: Researcher's Compilation (2024)

Table 1 reveals that all the predictors have a positive relationship with AGRIFIN with the correlation coefficient of 0.1497 for TENRATE, 0.1083 for DEVPLEVY, 0.1264 for HAWPMT, 0.1390 for MAKFEE, 0.1628 for SLAUSLAB and 0.0292 for FORFINE. This dispenses that AGRIFIN and all the predictors are having cordial and positive relationship. Similarly, TENRATE has a positive relationship with DEVPLEVY, HAWPMT, MAKFEE , SLAUSLAB and FORFINE with their coefficient values of 0.3051*, 0.3087*, 0.5819*, 0.3941* and 0.1966respectively. This specifies that the variables possessed the same direction of movement. Also, a positive correlation exists between DEVPLEVY, HAWPMT, MAKFEE , SLAUSLAB and FORFINE with the value of 0.5055*, 0.5524*, 0.6014*, and 0.3023* respectively. A positive correlation equally exists between HAWPMT, MAKFEE, SLAUSLAB and FORFINE to the tune of 0.6252*, 0.5436*, and 0.2734* respectively. A positive relationship exists between MAKFEE, SLAUSLAB and FORFINE with the coefficient value of 0.6810* and 0.2210* respectively. Finally, it was shown that the relationship between SLAUSLAB and FORFINE with the value of 0.0918, this predicted positive relationship between SLAUSLAB and FORFINE. It was also established that there is no presence of multicollinearity among the incorporated variables.

Table 2: Variance Inflation Factor Test

Variable	VIF	1/VIF
TENRATE	1.65	0.605133
DEVPLEVY	6.77	0.147627
HAWPMT	5.73	0.174515
MAKFEE	3.94	0.253973
SLAUSLAB	1.98	0.504381
FORFINE	1.15	0.873028

Source: Researcher's Compilation (2024)

Since all the variance factors for the predictors are less than 10, being the general standard, it connotes that there is no issue of heteroskedasticity.

Table 3: Results of Panel Data Analysis Estimate and Diagnostic Tests

	(1) Pooled Regression	(2) Robust Regression	(3) Fixed Effect Model	(4) Random Effect Model	(5) FGLS
TENRATE	64.83	64.83	15.19	64.83	64.83
	(0.010)	(0.045)	(0.008)	(0.008)	(0.009)
DEVPLEVY	128.0	128.0	433.7	128.0	128.0
	(0.049)	(0.045)	(0.042)	(0.048)	(0.047)
HAWPMT	2.830	2.830	-4.603	2.830	2.830
	(0.076)	(0.074)	(0.079)	(0.075)	(0.070)
MAKFEE	-19.79	-19.79	-37.28	19.79	19.79
	(0.005)	(0.003)	(0.007)	(0.004)	(0.009)
SLAUSLAB	3.261	3.261	7.979	3.261	3.261
	(0.065)	(0.068)	(0.064)	(0.062)	(0.045)
FORFINE	0.0396	0.0396	0.963	0.0396	0.0396
	(0.005)	(0.003)	(0.005)	(0.003)	(0.002)
_CONS	-2036558.8	-2036558.8	-886609.6	-2036558.8	-2036558.8
	(0.007)	(0.006)	(0.000)	(0.000)	(0.000)
Observations	99	99	99	99	99
R-squared	0.6391	0.6391	0.6368		
Adj. R-Squared	0.5435	0.5435	0.124		

F-Stat	$F(6, 92) = 77.62$	$F(6, 92) = 89.17$	$F(6,84) = 101.53$	Wald chi2(6) $= 73.75$	Wald chi2(6) $= 76.03$
	Prob > F = 0.0000	Prob > F = 0.0000	Prob > F = 0.0000	Prob>chi^2 = 0.0000	Prob>chi^2 = 0.0000
Pesaran CD Test	-	-	1.693 {0.0365}	-	
Hausman Test	-	-		Chi2(3) = 6.04 Prob>chi^2 = 0.4186	
Breusch-Pagan LM Test	-	-		chi$^2_{(01)}$ = 57.02 Prob>chi^2 = 0.0000	
Modified Wald Test for Heteroskedasticity	-	chi^2(6) = 121.77 Prob>chi^2 = 0.000	-	-	
Woodridge Test for Autocorrelation	-	$F_{(1,5)}$ = 77.36 Prob > F= 0.0025	-		AR (1) = 0.8748

Standard errors in parentheses *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Source: Researcher's Compilation (2024)

The Hausman test as shown in Table 3 was used to assess the appropriate estimating approach this study. With a probability value of 0.4186, the test favoured the random effect model estimate over the fixed effect model estimate. Similarly, the Breusch and Pagan LM test was also done to gauge the best estimated parameter between random effects and Pooled regression. But random effect was also favoured because a chi-squares statistic of 57.02 and a p-value of 0.0000, supported Hausman test result. The Hausman test result, therefore, takes priority, and pronounced random effect estimation as the best parameter for this model. Further test was carried on to expose non-cross-sectional dependency through the Pesaran CD test, with a pro-value of 0.0000 whilst the Modified Wald Test for Heteroskedasticity reveals that the variance of the error components is not constant across time, indicating the lack of homoskedasticity. This further recommends the Feasible Generalized Least Squares (FGLS) method for eliminating OLS assumptions violations for interpretation of hypotheses. It was discovered that TENRATE, MAKFEE, and FORFINE have favourable and considerable influence on agricultural financing in all sampled Local government in Niger state, Nigeria according to the postulation of FGLS. Contrarily, DEVPLEVY, HAWPMT and SLAUSLAB had positive but weak significant effect on agricultural financing in all sampled local government in Niger state, Nigeria. The Wald chi2(6) value of 76.03 together with Prob>chi^2 = 0.0000 divulged the fitness of the model.

Discussion of Findings

This study examines the effect of taxes' income on agricultural financing in Niger state local government. Three local governments from each of Niger State's three senatorial/ geopolitical zones were selected. Data was gathered from the Niger State Local Government Commission, Niger State Ministry of Local Government and Chieftaincy Affairs. Panel data model components such as pooled regression, fixed effect model, Random effect model, and FGLS as well as Hausman test were employed in the study. The heteroskedasticity, VIF and Pearson Product Moment correlation were also employed to determine the multicollinearity in the variables employed Following the outcome of the study after the thorough scrutinizing of the data with panel data analysis model such as Random effect model, fixed effects model and FGLS. It was revealed that TENRATE, and MAKFEE have favourable and considerable influence on agricultural financing in all sampled Local government in Niger state, this is in line with the submission of Adegbite & Shittu, 2018; Ezu, 2023; Iyoha, 2020; Oladipo et al., 2019 but against the submission of Ayanduba & Aronwman (2015). DEVPLEVY, HAWPMT and SLAUSLAB positively but weakly and significantly affect agricultural Financing in all sampled Local government in Niger state, Nigeria this in line with Adegbite and Shittu (2016), Chiogor et al., 2023; Ezu, 2023; Ganyam & Ivungu, (2019) but rejected the advocacy of Dethier and Effenberger (2012). Insignificant effect of HAWPMT is attributable to the evasion and avoidance of taxpayers of the tax because Hawking is porous in all the local governments in Niger state. This also revealed that much efforts have not been expended significantly on the collection of DEVPLEVY, HAWPMT and SLAUSLAB in the Local government in Niger state. Finally, it was discovered that and FORFINE was found to exert a positive and significant effect on Agricultural Financing in all selected local government in Niger state. This outcome is in consonance with the idea of Chiogor et al., 2023; Ezu, 2023; and Ganyam & Ivungu, (2019). This is traceable to the fact that forest fee is founded to enhance the development of agriculture. This finding implies that forest fine/fee is substantially boost local government spending on agriculture in all the selected local governments in Niger state, Nigeria. This outcome failed to corroborate the findings of Adegbite & Shittu, 2018; and Dethier and Effenberger (2012) and Iyoha, (2020), that forest fines and fees are significantly influence agricultural financing.

Conclusion

This study examines the effect of taxes' income on agricultural financing in Niger state local government. Three local governments from each of Niger State's three senatorial/ geopolitical zones were selected. Data was gathered from the Niger State Local Government Commission, Niger State Ministry of Local Government and Chieftaincy Affairs. Panel data model components such as pooled regression, fixed effect model, Random effect model, and FGLS as well as Hausman test were employed in the study. The heteroskedasticity, VIF and Pearson Product Moment correlation were also employed to determine the multicollinearity in the variables employed Following the outcome of the study after the thorough scrutinizing of the data with panel data analysis model such as Random effect model, fixed effects model and FGLS, it was concluded taxation has positive impacts but weak significant on agricultural financing in Niger State local governments. This is to the fact that agricultural sector has drastically been neglected in the state. The neglecting is due to the inability of the local government to recoup the loan given to the famers because of the insecurity and nonchalant attitude of the farmers to repay the loan back. This deterred the local governments to continue financing the agricultural sectors in all the local government in Niger state. It is recommended that Local government should device means of providing security for the loan and farmers for effective recouping of loan given to all the farmers for effective utilization and repayment. Also, monitoring should be given to the collection of taxes revenue in order to bring more taxpayers into tax net for enhancement of tax revenue and financial assistance to the local government and farmers respectively.

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