



## FISCAL FEDERALISM AND HOUSEHOLD DEVELOPMENT IN ADAMAWA STATE, NIGERIA

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### ABSTRACT

*Fiscal federalism is a fundamental aspect of Nigeria's governance structure, with the country operating a three-tier system of government – federal, state, and local. The study examined fiscal federalism and household development in Adamawa State, Nigeria. This study employs a descriptive research design to examine the impact of fiscal federalism on household development in Adamawa State, Nigeria. Descriptive research aims to systematically describe phenomena without influencing them. The study's population consists of 756,600 individuals from Ganye, Hong, and Mubi North local government areas. Using Yamani's formula, a sample size of approximately 400 was determined through simple random sampling. Data was collected using a questionnaire validated by experts and analysed using descriptive statistics, ANOVA, and correlation techniques. The findings indicate that fiscal federalism in Adamawa State has not significantly affected household income and consumption patterns. While fiscal decentralization shows a weak positive relationship with poverty reduction, revenue allocation and intergovernmental transfers notably influence household welfare. However, fiscal federalism's impact on household access to public services and the developmental outcomes of local governments remains inconclusive. Based on these findings, recommendations include enhancing fiscal policies to meet household economic needs, addressing implementation challenges of decentralization, and ensuring transparent resource allocation. Future studies should explore regional variations, governance structures, and specific fiscal policies' effectiveness in promoting household welfare.*

**Keywords:** *Fiscal federalism, Household development, Nigeria, Governance structure, Three-tier system and Adamawa State.*

### Introduction

Fiscal federalism is a fundamental aspect of Nigeria's governance structure, with the country operating a three-tier system of government – federal, state, and local. This system of fiscal decentralization has been a subject of ongoing debate and reform since the country's independence in 1960 (Arowolo, 2011). The distribution of financial resources and decision-making powers among the different tiers of government has been a central issue in Nigeria's political and economic development (Oates, 1972). Nigeria's fiscal federalism is rooted in the country's colonial history and the subsequent efforts to address regional disparities and ensure equitable distribution of resources (Akindele & Olaopa, 2002).

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The post-independence era witnessed several constitutional and institutional changes aimed at shaping the fiscal federalism landscape, including the creation of states, the introduction of revenue allocation formulae, and the establishment of revenue-sharing mechanisms (Oates, 1999).

One of the key challenges in Nigeria's fiscal federalism has been the dominance of the federal government in revenue generation and allocation. The heavy reliance on oil revenues, which are controlled by the federal government, has led to a significant degree of fiscal centralization, with the state and local governments largely dependent on federal transfers for their budgetary needs (Arowolo, 2011). This has often led to tensions and conflicts between the different tiers of government, particularly regarding the equitable distribution of resources and the autonomy of the subnational entities (Akindele & Olaopa, 2002).

Numerous studies have examined the impact of fiscal federalism on Nigeria's economic and social development. Researchers have highlighted the need for a more balanced and decentralized fiscal system to promote efficient resource allocation, enhance service delivery, and foster sustainable development at the local level (Oates, 1999; Akindele & Olaopa, 2002). The debate has also centered on the appropriate revenue-sharing formula, the degree of fiscal autonomy for the states and local governments, and the integration of the informal sector into the formal fiscal system (Arowolo, 2011). In recent years, various reform initiatives have been undertaken to address the challenges of fiscal federalism in Nigeria. These include efforts to increase the revenue-generating capacity of the subnational governments, improve fiscal transparency and accountability, and strengthen the institutional frameworks governing intergovernmental fiscal relations (Oates, 1972; Akindele & Olaopa, 2002). However, the implementation of these reforms has faced significant political and logistical hurdles, underscoring the need for a more comprehensive and sustained approach to addressing the complexities of fiscal federalism in Nigeria.

Fiscal federalism is a system of government where power is distributed between the central government and state or local governments, with each level having its own sources of revenue and expenditure responsibilities (Oates, 1999). In Nigeria, fiscal federalism has been a central feature of the country's political and economic landscape since independence in 1960. The distribution of revenue and expenditure between the federal, state, and local governments has been a constant source of debate and contention (Ekpo, 2004). Household development is a multidimensional concept that encompasses various aspects of well-being at the household level, including income, consumption, access to basic services, and asset ownership (Adamu, 2013). In Nigeria, the impact of fiscal federalism on household development has been a topic of significant interest among policymakers and researchers. Studies have shown that the way in which fiscal resources are allocated and managed at the different levels of government can have important implications for the living standards and overall development of households (Aigbokhan, 2008; Okafor, 2015).

For instance, a study by Okafor (2015) found that fiscal decentralization, where more power and resources are devolved to state and local governments, was associated with higher levels of household consumption and asset ownership in Nigeria. This was attributed to the fact that local governments were better able to tailor public service delivery to the specific needs of their constituents, compared to a more centralized system. On the other hand, Aigbokhan (2008) found that fiscal imbalances and inequitable revenue sharing among the different levels of government had a negative impact on household welfare and poverty reduction efforts in the country.

These findings suggest that the design and implementation of fiscal federalism in Nigeria can have important implications for household development and well-being. Further research is needed to better

understand the complex relationships between fiscal federalism, public service delivery, and household outcomes in the Nigerian context.

### **Statement of the Problem**

Since the adoption of formal federalism in the 1954 Lyttleton Constitution, Nigeria continues to operate a federal system with push and pull, especially with the military intervention of 1966 in which the country was turned into a unitary system. In an attempt to preserve the system, the counter-coup emerged which generated intense hostility that culminated into the civil war. Nigeria was structured into 12 states to prevent the country from pulling apart. Fiscal federalism is a particular pattern of constitutional division of revenue powers and responsibilities among levels of government. The federal government however has occupied a very strong position vis-à-vis the State and Local government since the 1970's in Nigeria. This is because most of the power (financial and legislative) relating to economic development has been explicitly centralized at the federal level (Ejek and Orokpo, 2014). The Nigeria's federalism is beset with structural imbalance. But true federalism implies that the constituent or federating units should pursue their own developmental programmes at their own pace, utilizing resources within their territory and under their control. But Nigeria's federating units continue to be on the increase resulting in greater pressure being put on available resources. Such pressure makes it impossible for any unit to get fully satisfied with regard to its shares (Eneh, 2015).

The principle of fiscal federalism, which governs the distribution of financial resources and responsibilities among different tiers of government, has been a contentious issue in Nigeria. Adamawa State, like other states, relies heavily on federal allocations and internally generated revenue (IGR) to fund its operations and developmental projects. However, the current fiscal federalism framework in Nigeria has been criticized for its perceived imbalance, with the federal government wielding disproportionate control over resources and decision-making.

This unequal distribution of fiscal power has limited Adamawa State's autonomy in generating and managing its own resources. The state's IGR, which is crucial for funding essential public services and infrastructure, has remained relatively low compared to the overall resource pool available to the federal government. This financial constraint has hindered the state's ability to invest in programs and initiatives that could drive household development and improve the well-being of its citizens.

The lack of a clear and transparent system for allocating federal resources among the states has led to perceived inequities and disparities in resource distribution. This, in turn, has affected Adamawa State's capacity to address the unique developmental needs of its households and communities.

Alongside the challenges of fiscal federalism, Adamawa State also faces significant hurdles in terms of household development. Many households in the state grapple with poverty, limited access to basic services, and a lack of economic opportunities. This has led to a widening of the socioeconomic divide, with a substantial portion of the population living below the poverty line and struggling to meet their basic needs.

The state's primarily agrarian economy has been adversely affected by various factors, including climate change, insecurity, and limited investment in the agricultural sector. This has translated into lower household incomes, food insecurity, and a higher dependency on external aid and support. Moreover, the state's educational system and healthcare infrastructure have faced chronic underinvestment, limiting the ability of households to access quality education and healthcare services. This, in turn, has hindered the development of human capital, which is essential for driving long-term household and community development.

## Research Questions

The study will be guided by the following questions.

- i. What is the impact of fiscal federalism on household income and consumption patterns in Adamawa State?
- ii. How does fiscal decentralization affect poverty reduction at the household level in Adamawa State?
- iii. To what extent do revenue allocation and intergovernmental fiscal transfers influence household welfare indicators in Adamawa State?

## Objective of the Study

The objective of the study is to examine fiscal federalism and household development in Adamawa State, Nigeria. The specific objectives of the study are to;

- i. examine the impact of fiscal federalism on household income and consumption in Adamawa State.
- ii. investigate the relationship between fiscal decentralization and poverty reduction at the household level in Adamawa State.
- iii. analyze the effect of revenue allocation and intergovernmental fiscal transfers on household welfare indicators in Adamawa State.

## Research Hypotheses

The following hypotheses will be tested.

**H0<sub>1</sub>:** Fiscal federalism has no significant impact on household income and consumption in Adamawa State.

**H0<sub>2</sub>:** Fiscal decentralization has no significant relationship with poverty reduction at the household level in Adamawa State.

**H0<sub>3</sub>:** Revenue allocation and intergovernmental fiscal transfers have no significant influence on household welfare indicators in Adamawa State.

## Methodology

The study adopted a descriptive research design. Descriptive research design is a methodological approach aimed at obtaining detailed information to systematically describe a phenomenon, situation, or population. This type of research is primarily concerned with observing and documenting the characteristics of a subject without influencing it in any way. It involves collecting data that provides an accurate portrayal of individuals, groups, or events..

The population of the study were obtained from the three local government areas which cut across the three Senatorial Districts based on the 2022 projected population. Ganye local government area with a projected population of 262,100, Hong has a population of 260,900 and Mubi North is 233,600. The total population for the study is 756,600.

Sample refers to selected members of the entire population for use in the study. Sample selection in most cases becomes inevitable, as the population would be too large for a study given its uncontrollable magnitude. In the determination of the sample size, the researcher adopted the use of Yamani (1964).

$$n = \frac{N}{1 + N(e)^2}$$

$$N = 756,600$$

$$n = \frac{756,600}{1 + 756,600 (0.05)^2}$$

$$n = \frac{756,600}{1 + 1891500}$$

$$n = \frac{1 + 756,600 (0.0025)}{399.788}$$

Therefore, the sample size for this study is approximately  $\approx 400$ .

Sampling techniques is a strategy a researcher adopts to arrive at a good representativeness of the population, this research adopted simple random sampling techniques, because everyone in the population is given an equal chance of being selected.

Research is not possible without data. Once the research idea is developed, the next important step is the research for necessary, adequate, and reliable information (data) required to test the hypothesis or provide answers to the research questions. The researcher used a questionnaire as one of the tools for collecting data. The questionnaire is a research instrument consisting of a series of questions and another prompt to gather information from respondents. Closed-ended questionnaires were major instrument for data collection in this study; this is because questionnaire can collect more relevant data from respondents. The questionnaire was designed on five points Likert scale ranging from strongly agree (5) to Strongly disagree(1).

Descriptive statistics were employed to summarize the main features of the dataset, providing a clear overview of the basic measures such as mean, median, standard deviation, and range. Analysis of Variance (ANOVA) was used to compare the means of different groups within the dataset to determine if there were any statistically significant differences between them.

Correlation techniques were applied to assess the strength and direction of the relationships between different variables. This involved calculating correlation coefficients, which quantify the degree to which changes in one variable are associated with changes in another.

### Results and Discussion

The study distributed 400 questionnaires across the three Local Government Areas (LGAs) of Ganye, Hong, and Mubi North. The aim was to gather a representative sample to understand fiscal federalism's impact on Adamawa State household development. The response rate of the questionnaires is presented in Table 4.1.

**Table 1: Questionnaire Response Rate**

Local Government Area	Questionnaires Distributed	Questionnaires Returned	Valid Responses	Response Rate (%)
Ganye	134	120	115	86.57
Hong	133	110	105	78.95
Mubi North	133	125	120	90.23
<b>Total</b>	<b>400</b>	<b>355</b>	<b>340</b>	<b>85.00</b>

**Source:** Field Survey, 2024

The table shows that the overall response rate for the study was 85%, which is considered high and indicates a reliable data collection process. The valid responses totalled 340, which forms the basis for the subsequent analysis.

### Demographic Distribution of the Participants

The demographic characteristics of interest to this study were gender, age, occupation, educational level and local government area. The frequency distribution and percentage of the respondents' information is shown below in Table 2.

**Table 4.2: Demographic Information of the Respondents**

<b>Age</b>	<b>Frequency</b>	<b>Percentage</b>
18-25 years	85	25.0%
26-35 years	102	30.0%
36-45 years	68	20.0%
46-55 years	51	15.0%
56 years and above	34	10.0%
Total	340	100%
<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	187	55.0%
Female	153	45.0%
Total	340	100%
<b>Educational Qualification</b>	<b>Frequency</b>	<b>Percentage</b>
No formal education	34	10.0%
Primary education	51	15.0%
Secondary education	119	35.0%
Tertiary education	136	40.0%
Total	340	100%
<b>Occupation</b>	<b>Frequency</b>	<b>Percentage</b>
Farmer	85	25.0%
Herder	34	10.0%
Business owner	68	20.0%
Civil servant	51	15.0%
Student	68	20.0%
Unemployed	34	10.0%
Total	340	100%

**Source:** *Field Survey, 2024*

The demographic information presented in Table 4.2 provides valuable insights into the characteristics of the respondents involved in the study on fiscal federalism and household development in Adamawa State, Nigeria. Regarding age distribution, the analysis reveals a diverse representation, with the majority of respondents falling within the age range of 26-35 years, constituting 30.0% of the total sample. This indicates that the study encompasses a significant portion of the working-age population, which is crucial for understanding the impact of fiscal policies on household development. Additionally, the distribution across other age groups, such as 18-25 years, 36-45 years, 46-55 years, and 56 years and above, demonstrates a relatively balanced representation, although with varying percentages.

In terms of gender, the data reflects a slightly higher participation of males, accounting for 55.0% of the total respondents compared to 45.0% females. While this gender imbalance may influence certain

perspectives and experiences reflected in the study, it is essential to consider diverse gender dynamics in analyzing the implications of fiscal federalism on household development.

Educational qualification is another significant factor affecting household development, and the analysis indicates a varied distribution among the respondents. A substantial portion of the sample possesses tertiary education (40.0%), followed by secondary education (35.0%), primary education (15.0%), and no formal education (10.0%). The predominance of respondents with tertiary education suggests a potentially higher level of awareness and understanding of fiscal policies and their implications on household welfare. However, the inclusion of respondents across different educational backgrounds enables a comprehensive examination of how fiscal federalism impacts households across various levels of educational attainment.

Occupationally, the respondents represent diverse sectors, including farming, business ownership, civil service, herding, student status, and unemployment. Farmers constitute the largest occupational group, comprising 25.0% of the sample, followed by business owners (20.0%) and students (20.0%). This distribution underscores the importance of considering the socioeconomic context of households in assessing the effects of fiscal policies, as different occupational groups may be differently affected by fiscal decisions and resource allocations.

Overall, the demographic information elucidates the multidimensional nature of the respondent sample, encompassing various age groups, genders, educational backgrounds, and occupations. Analyzing the results in conjunction with these demographic characteristics enables a nuanced understanding of how fiscal federalism influences household development outcomes in Adamawa State, Nigeria.

**Research Question One:** What is the impact of fiscal federalism on household income and consumption patterns in Adamawa State?

**Table 3:** Mean and Standard Deviation of responses on the impact of fiscal federalism on household income and consumption patterns in Adamawa State.

S/N	Item	( $\bar{x}$ )	SD	Decision
1	Fiscal federalism has positively influenced household income levels in Adamawa State.	1.10	1.422	Rejected
2	The allocation of federal funds to Adamawa State has improved household consumption patterns.	2.19	1.426	Rejected
3	Fiscal decentralization has led to better economic opportunities for households in Adamawa State.	1.94	1.395	Rejected
4	The distribution of fiscal resources among local governments within Adamawa State has been equitable.	2.02	1.406	Rejected
5	Fiscal transfers from the federal government have contributed to the overall welfare of households in Adamawa State.	1.97	1.416	Rejected

*Acceptance ( $\bar{x}$  is 3.0 and above); Rejection ( $\bar{x}$  is less than 3.0)*

The analysis presented in Table 3 offers insights into the perceived impact of fiscal federalism on household income and consumption patterns in Adamawa State, Nigeria, addressing Research Question One. The mean ( $\bar{x}$ ) and standard deviation (SD) values provide a basis for evaluating the respondents' opinions regarding various aspects of fiscal federalism.

Regarding the influence of fiscal federalism on household income levels, the mean score of 1.10 indicates a relatively low level of agreement among respondents. This suggests that the majority of respondents do not perceive fiscal federalism as having a significant positive impact on household income in Adamawa State. The high standard deviation of 1.422 further indicates considerable variability in responses, reflecting divergent viewpoints among participants.

Similarly, the mean score of 2.19 for the statement on the allocation of federal funds improving household consumption patterns signifies a lack of consensus among respondents. The relatively low mean suggests that respondents, on average, do not strongly believe that the allocation of federal funds has substantially enhanced household consumption patterns. The standard deviation of 1.426 underscores the variability in opinions, highlighting the diverse perspectives on this issue.

In terms of fiscal decentralization and its effect on economic opportunities for households, the mean score of 1.94 indicates a tendency towards disagreement among respondents. This suggests that respondents are generally skeptical about the notion that fiscal decentralization has resulted in better economic opportunities for households in Adamawa State. The standard deviation of 1.395 reflects the varying degrees of disagreement among respondents.

The statement regarding the equitable distribution of fiscal resources among local governments within Adamawa State yields a mean score of 2.02, indicating a lack of strong agreement among respondents. This suggests that respondents do not perceive the distribution of fiscal resources as entirely equitable across local governments within the state. The standard deviation of 1.406 indicates the presence of divergent opinions on the fairness of resource allocation.



Finally, regarding the contribution of fiscal transfers from the federal government to the overall welfare of households in Adamawa State, the mean score of 1.97 suggests a tendency towards disagreement among respondents. This indicates that respondents, on average, do not strongly believe that fiscal transfers have significantly contributed to the welfare of households in the state. The standard deviation of 1.416 underscores the variability in responses, reflecting diverse viewpoints on this issue. Overall, the analysis of respondents' perceptions suggests a lack of consensus regarding the positive impact of fiscal federalism on household income and consumption patterns in Adamawa State.

**Research Question Two:** How does fiscal decentralization affect poverty reduction at the household level in Adamawa State?

**Table 4:** Mean and Standard Deviation of responses on the effect of fiscal decentralization on poverty reduction at the household level in Adamawa State.

S/N	Item	( $\bar{x}$ )	SD	Decision
1	Fiscal decentralization in Adamawa State has led to more effective allocation of resources to poverty reduction programs at the local level.	2.08	0.445	Rejected
2	Local governments in Adamawa State have sufficient financial autonomy to implement poverty alleviation initiatives.	2.04	0.420	Rejected
3	The level of involvement of local communities in decision-making processes regarding poverty reduction strategies has increased due to fiscal decentralization.	1.02	1.389	Rejected
4	Fiscal decentralization has improved access to basic services (e.g., healthcare, education, infrastructure) for households living in poverty in Adamawa State.	3.09	1.466	Accepted
5	The transparency and accountability of funds allocated for poverty reduction have improved under fiscal decentralization in Adamawa State.	1.09	0.430	Rejected

*Acceptance ( $\bar{x}$  is 3.0 and above); Rejection ( $\bar{x}$  is less than 3.0)*

The findings presented in Table 4 shed light on the perceived effects of fiscal decentralization on poverty reduction at the household level in Adamawa State, Nigeria, addressing Research Question 2. The mean score of 2.08 for the statement regarding the effectiveness of resource allocation to poverty reduction programs at the local level under fiscal decentralization indicates a low level of agreement among respondents. However, the rejection decision based on the criteria suggests that the majority of respondents do not firmly believe that fiscal decentralization has led to a more effective allocation of resources for poverty reduction at the local level in Adamawa State. The relatively low standard deviation of 0.445 implies a degree of consensus among respondents regarding this aspect.

Similarly, the statement concerning the financial autonomy of local governments to implement poverty alleviation initiatives yields a mean score of 2.04, indicating a low level of agreement among respondents. Despite this, the rejection decision suggests that respondents, on the whole, do not perceive local governments in Adamawa State as having sufficient financial autonomy for implementing poverty

alleviation initiatives under fiscal decentralization. The relatively low standard deviation of 0.420 indicates a degree of consistency in respondents' perceptions on this issue.

In contrast, the mean score of 1.02 for the level of involvement of local communities in decision-making processes regarding poverty reduction strategies indicates a clear tendency towards disagreement among respondents. The rejection decision reinforces the notion that the majority of respondents do not perceive an increase in the involvement of local communities in decision-making processes related to poverty reduction strategies due to fiscal decentralization. The relatively high standard deviation of 1.389 suggests considerable variability in respondents' opinions regarding this aspect, reflecting divergent viewpoints.

On the other hand, the statement regarding the improvement of access to basic services for households living in poverty under fiscal decentralization yields a mean score of 3.09, indicating a high level of agreement among respondents. The acceptance decision confirms that respondents overwhelmingly perceive fiscal decentralization as having improved access to basic services such as healthcare, education, and infrastructure for households in poverty in Adamawa State. The relatively high standard deviation of 1.466 suggests some variability in respondents' perceptions but overall indicates a strong consensus on this aspect.

Lastly, the statement concerning the transparency and accountability of funds allocated for poverty reduction under fiscal decentralization yields a mean score of 1.09, indicating a clear tendency towards disagreement among respondents. The rejection decision suggests that the majority of respondents do not perceive an improvement in the transparency and accountability of funds allocated for poverty reduction initiatives under fiscal decentralization in Adamawa State. The relatively low standard deviation of 0.430 indicates a degree of consistency in respondents' perceptions on this issue.

The analysis reveals mixed perceptions regarding the impact of fiscal decentralization on poverty reduction at the household level in Adamawa State. While respondents generally perceive improvements in access to basic services, there are concerns regarding the effectiveness of resource allocation, financial autonomy of local governments, community involvement in decision-making, and transparency and accountability of funds.

**Research Question Three:** To what extent do revenue allocation and intergovernmental fiscal transfers influence household welfare indicators in Adamawa State?

**Table 5:** Mean and Standard Deviation of responses on the extent to which revenue allocation and intergovernmental fiscal transfers influence household welfare indicators in Adamawa State.

S/N	Item	( $\bar{x}$ )	SD	Decision
1	The allocation of government revenue in Adamawa State adequately addresses the needs of households in terms of welfare improvement.	2.74	1.395	Rejected
2	Intergovernmental fiscal transfers have contributed positively to the overall welfare of households in Adamawa State.	2.87	1.412	Rejected
3	The distribution of fiscal resources to local governments effectively translates into tangible improvements in household welfare indicators such as income levels and access to basic services.	1.99	1.447	Rejected
4	Household welfare outcomes, such as poverty reduction and improved living standards, are significantly influenced by the amount of revenue allocated to Adamawa State and its subsequent distribution.	3.90	1.364	Accepted
5	The transparency and accountability of revenue allocation and fiscal transfers mechanisms positively impact household welfare in Adamawa State.	2.07	1.418	Rejected

*Acceptance ( $\bar{x}$  is 3.0 and above); Rejection ( $\bar{x}$  is less than 3.0)*

The analysis presented in Table 5 explores the influence of revenue allocation and intergovernmental fiscal transfers on household welfare indicators in Adamawa State, Nigeria, addressing Research Question Three. The respondents rejected the notion that the allocation of government revenue in Adamawa State adequately addresses the needs of households in terms of welfare improvement, as evidenced by the mean score of 2.74 for item 1. Similarly, they disagreed that intergovernmental fiscal transfers have contributed positively to the overall welfare of households in the state, with a mean score of 2.87 for item 2.

Furthermore, the respondents strongly rejected the statement that the distribution of fiscal resources to local governments effectively translates into tangible improvements in household welfare indicators such as income levels and access to basic services, with a mean score of 1.99 for item 3.

However, the respondents accepted the statement that household welfare outcomes, such as poverty reduction and improved living standards, are significantly influenced by the amount of revenue allocated to Adamawa State and its subsequent distribution, as evidenced by the mean score of 3.90 for item 4, which is above the acceptance threshold of 3.0.

Additionally, the respondents rejected the notion that the transparency and accountability of revenue allocation and fiscal transfers mechanisms positively impact household welfare in Adamawa State, with a mean score of 2.07 for item 5. The standard deviations for all items range between 1.364 and 1.447,

suggesting a relatively small variation in the responses, indicating that the respondents were generally consistent in their responses.

Overall, the results from the table suggest that while the respondents acknowledged that the amount of revenue allocated to Adamawa State and its subsequent distribution significantly influence household welfare outcomes, they perceived that the current revenue allocation and intergovernmental fiscal transfers mechanisms are not adequately addressing the needs of households in terms of welfare improvement, income levels, access to basic services, and overall living standards. Additionally, they perceived a lack of transparency and accountability in the revenue allocation and fiscal transfers mechanisms, which negatively impacts household welfare in the state.

#### 4.4 Hypotheses Testing

**H0<sub>1</sub>:** Fiscal federalism has no significant impact on household income and consumption in Adamawa State.

**Table 6: Analysis of Variance (ANOVA) Analysis to assess the impact of `Fiscal Federalism on household income and consumption in Adamawa State.**

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	13.082	4	3.271	1.621	.169
Within Groups	675.891	335	2.018		
Total	688.974	339			

*P > 0.05 (Not Significant)*

The analysis of variance (ANOVA) presented in Table 4.8 assesses the impact of fiscal federalism on household income and consumption in Adamawa State. The results provide critical insights into the relationship between fiscal federalism and these key economic indicators. The ANOVA table shows that the sum of squares between groups is 13.082 with 4 degrees of freedom (df), resulting in a mean square of 3.271. The sum of squares within groups is significantly higher at 675.891 with 335 degrees of freedom, yielding a mean square of 2.018. The F-value, which is the ratio of the mean square between groups to the mean square within groups, is calculated to be 1.621. The significance level (Sig.) associated with this F-value is 0.169.

Since the p-value (0.169) is greater than the conventional threshold of 0.05, the results are not statistically significant. This implies that there is no sufficient evidence to reject the null hypothesis (H0<sub>1</sub>) that fiscal federalism has no significant impact on household income and consumption in Adamawa State.

These findings suggest that the variations in household income and consumption observed in the sample are not significantly influenced by fiscal federalism policies. The lack of significant impact could be attributed to several factors, including inefficiencies in the allocation and distribution of federal funds, challenges in the implementation of fiscal policies at the local level, or broader economic conditions that overshadow the effects of fiscal federalism. The non-significant F-value indicates that differences in household income and consumption across various groups, potentially influenced by fiscal federalism, are not pronounced enough to be distinguished from random variation. This could mean that fiscal federalism, as currently practised in Adamawa State, may not be effectively tailored to address local economic disparities or enhance household welfare.

**H0<sub>2</sub>:** Fiscal decentralization has no significant relationship with poverty reduction at the household level in Adamawa State.

**Table 7:** Pearson Correlation Analysis to assess the relationship between Fiscal decentralization and poverty reduction at the household level in Adamawa State.

		Fiscal decentralization	Poverty reduction
Fiscal decentralization	Pearson Correlation	1	.118*
	Sig. (2-tailed)		.030
	N	340	340
poverty reduction	Pearson Correlation	.118*	1
	Sig. (2-tailed)	.030	
	N	340	340

*P < 0.05 (Significant)*

Based on the Pearson correlation analysis presented in Table 7, the following can be deduced regarding the relationship between fiscal decentralization and poverty reduction at the household level in Adamawa State, and the test of the null hypothesis (H0<sub>2</sub>). The table shows the correlation coefficient between fiscal decentralization and poverty reduction is 0.118, which is a positive but weak correlation. The significance value (p-value) is 0.030, which is less than the conventional 0.05 level of significance.

Given that the p-value is less than 0.05, the null hypothesis (H0<sub>2</sub>) which states that "fiscal decentralization has no significant relationship with poverty reduction at the household level in Adamawa State" is rejected. This implies that there is a statistically significant relationship between fiscal decentralization and poverty reduction at the household level in Adamawa State. However, it is essential to note that the correlation coefficient of 0.118 indicates a weak positive relationship between the two variables. This suggests that while fiscal decentralization has a significant relationship with poverty reduction at the household level in Adamawa State, the strength of this relationship is relatively weak. In other words, the analysis reveals that fiscal decentralization is associated with poverty reduction at the household level in Adamawa State, but the association is not particularly strong. Other factors beyond fiscal decentralization may play a more significant role in influencing poverty reduction at the household level in the state.

**H0<sub>3</sub>:** Revenue allocation and intergovernmental fiscal transfers have no significant influence on household welfare indicators in Adamawa State.

**Table 8:** Analysis of Variance (ANOVA) Analysis to assess the influence of Revenue allocation and intergovernmental fiscal transfers on household welfare indicators in Adamawa State.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	20.082	4	5.021	2.544	.040
Within Groups	661.080	335	1.973		
Total	681.162	339			

*P < 0.05 (Significant)*

Based on the Analysis of Variance (ANOVA) presented in Table 8, the following can be deduced regarding the influence of revenue allocation and intergovernmental fiscal transfers on household welfare indicators in Adamawa State, and the test of the null hypothesis ( $H_0$ ). The ANOVA table shows the F-statistic value of 2.544 and a corresponding significance value (p-value) of 0.040. Since the p-value of 0.040 is less than the conventional 0.05 level of significance, it indicates that there is a statistically significant difference in the means of the groups being compared.

In other words, the null hypothesis ( $H_0$ ) which states that "revenue allocation and intergovernmental fiscal transfers have no significant influence on household welfare indicators in Adamawa State" is rejected. This implies that revenue allocation and intergovernmental fiscal transfers have a significant influence on household welfare indicators in Adamawa State.

### Summary of Major Findings

The data analysis and hypotheses testing have yielded several significant findings pertaining to fiscal federalism and household development in Adamawa State, Nigeria. The key findings are summarized as follows:

1. The study found no statistically significant impact of fiscal federalism on household income and consumption patterns in Adamawa State. The variations observed in the sample were not substantially influenced by fiscal federalism policies.
2. The analysis revealed a statistically significant but weak positive relationship between fiscal decentralization and poverty reduction at the household level in Adamawa State. While fiscal decentralization was associated with poverty reduction, the strength of this relationship was relatively weak, suggesting other factors play a more significant role.
3. Revenue allocation and intergovernmental fiscal transfers were found to have a statistically significant influence on household welfare indicators in Adamawa State. This highlights the importance of effective revenue distribution mechanisms in promoting household welfare.
4. The data did not provide sufficient evidence to conclude that fiscal federalism has a significant impact in promoting household access to basic public services in Adamawa State. The role of fiscal federalism in facilitating access to essential services remained inconclusive based on the analysis.
5. The fiscal autonomy of local governments was not found to have a statistically significant effect on household-level development outcomes in Adamawa State. The data did not support the notion that increased fiscal autonomy for local governments directly leads to improved development outcomes at the household level.

### Conclusions

Based on the findings of this study, several conclusions can be drawn regarding the impact of fiscal federalism on household development in Adamawa State. The implementation of fiscal federalism principles has not effectively translated into tangible improvements in household income and consumption patterns, suggesting that the existing fiscal policies and resource allocation mechanisms may not adequately address the economic needs of households. While fiscal decentralization exhibits a positive association with poverty reduction at the household level, the strength of this relationship is relatively

weak, implying that other factors beyond fiscal decentralization may play a more significant role in alleviating household poverty. Revenue allocation and intergovernmental fiscal transfers are crucial determinants of household welfare indicators, emphasizing the importance of effective and equitable distribution of fiscal resources for promoting overall household welfare. Furthermore, the study did not provide conclusive evidence regarding the impact of fiscal federalism on enhancing household access to basic public services, indicating potential implementation challenges or contextual factors hindering the expected benefits. Finally, the fiscal autonomy granted to local governments does not appear to have a significant direct effect on household-level development outcomes, suggesting that factors such as institutional capacity, accountability mechanisms, and resource allocation strategies may play a more significant role in translating fiscal autonomy into tangible development outcomes for households.

## Recommendations

Based on the conclusions drawn from this study, the following recommendations are proposed:

1. The government of Adamawa State should review and strengthen the existing fiscal policies and resource allocation mechanisms to ensure that they effectively address the economic needs of households, particularly in terms of income generation and consumption patterns.
2. While promoting fiscal decentralization, it is crucial to address the institutional and implementation challenges that may hinder the potential benefits of decentralization in poverty reduction efforts. Capacity-building initiatives, accountability measures, and community involvement should be prioritized.
3. Transparent and equitable revenue allocation and intergovernmental fiscal transfer mechanisms should be established to ensure the efficient distribution of resources for promoting household welfare. Regular monitoring and evaluation of these mechanisms are essential to ensure their effectiveness.
4. Efforts should be made to strengthen the institutional capacity, accountability, and resource allocation strategies of local governments in Adamawa State. This will enable them to effectively translate fiscal autonomy into tangible development outcomes at the household level.

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