Effect of Armed Banditry on Educational Outcomes in Affected Rural Communities of Katsina State, Nigeria

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Abstract

Measuring educational outcomes in terms of enrolment, attendance, academic performance and teacher effectiveness, the effect of armed banditry was investigated in affected rural communities in three Local Government Areas of Katsina State, namely; Jibia, Batsari, and Danmusa. Obtaining cross-sectional data from 450 respondents encompassing parents, students and school administrators in primary and post-primary schools in the affected communities, the Ordinary Least Squares regression technique was deployed for the analysis. Armed banditry was found to have a negative effect on educational outcomes, and this effect was found to be significant for all the educational indicators. Based on these findings, policy interventions including increased security funding, community engagement, and targeted training are recommended to mitigate these impacts. Specifically, deployment of local vigilantes, embarking on mass orientation on various response measures that can be adopted by citizens before, during and after attacks are recommended. Overall, addressing armed banditry in all its ramifications is imperative in order to improve educational outcomes in the affected rural communities of Katsina State in particular and Nigeria in general.

Keywords: *Armed banditry, Educational outcomes, Katsina state, Nigeria*

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Background to the Study

Educational and Human capital development in general, is the conscious and deliberate building of capacity, including the harnessing of the human resources with a view to develop the full potential of a given society with education and health being key drivers in that trajectory. However, developing education and human capital is hinged on relative security and absence of armed violence. Thus, armed banditry is detrimental to the realization of effective educational and school system, capable of producing the skill set needed for development. The effect of armed banditry on development generally cannot be overemphasized given that it puts the socio-economic and political development on a perpetual decline. Suffice to add that where there is fear, anxiety and suspicion of the unknown, people tend to withdraw from any activity that would expose them to danger. This creates a serious disconnect between the people and their daily socio-economic cum political engagements. Thereby ushering a regime of underdevelopment that affects virtually everything sphere of the society.

Nigeria has experienced preponderance of armed banditry on the rural communities. Rural community's world over is the host of agricultural activities and other social and economic engagements. Katsina state has recorded destruction of school infrastructure and drain in human capital because of incessant banditry. The situation is worsening in the Northeast and Northwest regions of the country especially in Zamfara amd Katsina State. From January to December 2022, 1,858 people were killed in Zamfara, Kaduna, Katsina, Sokoto and Niger States, while over 10,000 cattle were rustled, 2,688 hectares of arable farming land lost as people were forcefully displaced, leading to forced migration (West Africa Network for Peace building, 2022). Additionally, 4,000 people were internally displaced in Katsina State with scores of thousands of deaths recorded between November 2019 and March, 2022. The spate of banditry took an even more dangerous turn in 2022. In March, 2022, more than 210,000 people were internally displaced and over 35,000 refugees crossed Nigeria"'s communal borders into Niger Republic (ACAPS Nigeria, 2022), with the most affected states being Kaduna, Zamfara and Katsina. Akinwotu and Sanyinnawal (2022) reported that between April and June, 2022, armed bandits executed over 50 major attacks in Northwest Nigeria in Kaduna, Zamfara, Katsina and Sokoto states.

Armed banditry in Nigeria is attributed to several factors including the relative ease of entry by foreign rebels, the thick and often impenetrable forested strip bordering Nigeria and neighboring Franco-phone countries (Onah, 2010), easy availability and acquisition of weapons, and importantly rising incidences of poverty, unemployment and the collapse of traditional social control mechanisms and ethos (Defending Human Rights Worldwide, 2005). Flowing from the above, there seems to exist a telling effect of the precarious situation on the educational attainment of the rural populace in Katsina state. The noticeable consequence is the number of out of school children, occasioned by the attacks on school facilities. More often, the school children are the targets where bandits kidnap students and take them to the forest in anticipation of ransom in exchange for their release.

The adoption of Kankara school children in Katsina State in 2020 is an instance. External examination bodies like WAEC and NECO have had very terrible experience in the conduct of their annual examinations. There were instances where ad-hoc staff declined posting to perceived volatile rural communities for fear of attack. Even the Katsina State Ministry of Education finds it extremely difficult to access some of the schools for evaluation and monitoring of both students and staff thereby creating quality assurance gap. This impedes the sustainability past gains and educational development in the state in general. The perennial problems of education in the North-West region have been exacerbated by armed banditry, as there are mass displacements in affected communities and exponential rise in the number of out-of-school children in the region. For example, of the 10.5 million out-of-school children in Nigeria, 30 percent are in the North-West. In addition, real and perceived attacks by armed bandits impact enrolment as well as parental involvement, with schools operating below capacity due to fear of kidnap of students, attacks or killing by armed bandits, leading to increased risks of exploitation and violence. It is known that insecure school environment affects children's learning and academic outcomes, teacher effectiveness and general school administration.

Katsina State, Northwest Nigeria, has not particularly fared well in various indices of educational outcomes, especially in comparison to states in the south. Aside being among the educationally less-developed states in Nigeria, it has one of the highest poverty rates in the country, and also faces a rapidly declining education system. Insecurity, particularly armed banditry, disrupts educational access and quality, leading to school closures, displacement, and increased dropout rates. While anecdotal reports highlight these issues, empirical analyses focusing on specific educational indicators remain limited, particularly in Katsina State. This study aims to address this gap by quantitatively examining how armed banditry impacts enrolment, attendance, academic performance, and teacher effectiveness.

On the basis of the above background, this study is set to achieve the following objectives;
i) To examine the effect of armed banditry on school enrolment in affected rural communities in Katsina State
ii) To determine the effect of armed banditry on school attendance in affected rural communities in Katsina State.
iii) To determine the effect of armed banditry on academic performance in affected rural communities in Katsina State.
iv) To examine the effect of armed banditry on teacher effectiveness in affected rural communities in Katsina State.

Literature Review
Conceptual Clarification and Theoretical Framework
The concept of banditry is a universal concept that its components depend on the location, environment and the prevailing type of crime in such region. But in general, banditry is a type of organized crime committed by outlaws typically involving the threat or use of violence. A person who engages in banditry is known as a bandit and primarily commits crimes such as extortion, robbery, and murder, kidnapping, cattle rustling etc either as an individual or in

groups. Banditry is a vague concept of criminality and in modern usage it relates to armed robbery which is usually involves theft with violence or threat of violence by a person, with whom the victim has had no previous contact, and it is usually unprovoked and unpredictable (Conklin, 1992:103).

Armed banditry, therefore, implies the actual or threatened use of arms (any instrument of force/coercion/violence) to dispossess people of their material belongings. Typically, armed banditry is a gang phenomenon, although some bandits have been known to operate as lone brigands not associated with any criminal networks (Okoli and Okpaleke, 2014). As a gang phenomenon, armed banditry can be appropriately situated within the analytical ambit of organized crimes' discourse. The essence of armed banditry is (illicit) capital acquisition for personal or group aggrandizement.

Armed banditry for the purpose of this study should be seen as the practice of raiding and attacking victims by members of an armed group, whether or not premeditated, using weapons of offence or defence especially in semi-organized groups for the purpose of overpowering the victim and obtaining loot or achieving some political goals. Such bandits are usually regarded as outlaws and desperate lawless marauders who do not have a definite residence or destination, and they roam around the forest and mountains to avoid being detected or arrested.

The theoretical foundation of this study is "the frustration-aggression theory" by John Dollard, (1939). The theory posits that aggression is a result of frustration, which occurs when an individual's goal-directed behaviour is blocked. The theory suggested that frustration invariably leads to aggression, but later revisions recognized that frustration can also lead to other behaviours. This theory is applicable on the basis that, this sets of people engages in banditry activities as a result of frustration, negligence and not been catered for by the government or the political elite which made them to result into kidnapping for ransom in order to earn leaving. The frustration-aggression hypothesis, or principle of psychology, suggesting that when people feel frustrated, it causes them to react with aggression, defined as behaviors meant to harm or injure another individual in some way as a result of what the person is feeling.

Empirical Review
Armed Banditry and Education Development in Nigeria
The effect or impact of armed banditry on educational development has been studied by many scholars with various indicators. This indicator includes among others, students' academic performance, school enrolment, school's properties vandalization and destruction, teacher's performance etc. The general conclusion of most of this study is that activities of armed banditry has a significant negative effect on most of this indicator.

Kitabu & Mohammed (2023), examines the effect of armed banditry on educational development of Niger State, using telcott person's model of structural functionalism which is traceable to the work of Herbert Spencer (1869). The study found out that the incidence of

armed banditry has greatly affected students' performance, enrolment and attendance, and thereby concludes that, the problems of armed banditry is traceable to the problem of unemployment among citizens, injustice by those in position of authority, porous nature of Nigerian borders, among others. It was recommended that; government should strengthen security personnel by providing them with sophisticated weapon to enable them confront armed bandits in order to restore peace in this affected communities so that displaced school's children can go back to their respective schools.

Naomi (2022) examine the effect of banditry on educational system in Kaduna state using sample of 1000 students comprises of 500 male and female students each from the selected public schools in the State. Questionnaire were structured to address three main research question of what is the effect of banditry on student's performance, school enrolment and facilities in the schools. Both descriptive that includes mean, media and percentages and inferential statistics were used for the study analysis. The finding of the study reveals that banditry activities significantly affect the educational system in the state in terms of poor academic performance, low enrolment and vandalization of school properties. Based on this findings, government or concern authority should build a fence round all the public school and provide maximum security to all the school in order to repose confidence on students so that they can return to school and enhance their f performance.

Similarly, Ebonie (2022), assess the impact of banditry on educational and socio-economic development of in the northern Nigeria using qualitative approach on a data generated from various sources such as newspaper, publication from international publication bodies like world bank development indicators. The study finds out that effect of armed banditry which the study used synonymously as Boko Haram, ISWAP etc had significant Impact on education quality and attendance in the region. The study therefore recommends that government should tightening more security around the cools and craning of the country and adopt stick and carrot approach to deal with any culprit arrested and their sponsor.

In a related study by Kangyyan and Aipe (2021) on the Herdsmen, Banditry and Kidnapped activities: A threat to secondary school Education in Nigeria, using interview and structured questionnaire method of data collection administered to both students, staff and parents of some selected secondary school in Nigeria including Borno, Yobe, Adamawa, Kano, Katsina, Zamfara and Niger State. Using Frustration Aggressive theory, the study concludes that activities of boko haram, kidnapping, banditry, cattle rustling, constituted a serious threat to secondary school education in Nigeria. The study also observed that the current efforts of various state governments are welcome, but such efforts will not be successful without genuine stakeholder participation and involvement and Federal government which has exclusive role on providing effective security by ensuring and providing adequate security personnel with full training and working tools and also should make room for the inclusion of all layers of stakeholders.

Dada and Mohammed (2019) investigates the activities of insurgency in the north-eastern

part of the country a case study of Yobe State, with the main focus on the resultant effect on the educational development of the state in particular. The study was based on in-depth analysis of the terror acts, such as abduction of students, burning and destructions of school structures, killings of staff and students and the resultant psychological pressure on the performance of teachers was studied. In addition, the implications of these activities on student's enrolment, attendance to schools and effect of Boko Haram insurgency on school infrastructure was studied. Using sample size of (128) people comprise of 10 teachers, 8 administrators and 40 students from each of the affected school/institution. Data was sourced through the structured questionnaire and the finding of the study indicated that the activities of insurgency have a significant impact on student's enrolment teaching and learning and on school properties The study therefore, recommended that government should provide informal employment opportunities for the citizens and encourage them to be self-reliant. This can only be done through giving them loans and building entrepreneurial skills for different types of businesses. This may have positive effect on the people by preventing them from being easily brainwashed and being involved in any activity that is characterized as insurgency. The assertion is based upon the theory of Frustration-aggression theory which emphasizes the fact that violent response by individuals often results from preventing them from achieving their basic needs.

Methodology
Research Design, Population and Instrumentation
The study uses a survey research design. The population of the study encompasses all parents, students and school administrators in primary and post-primary schools in the affected communities, in three LGAs in Katsina State where armed banditry is endemic. These LGAs are Jibia, Batsari, and Danmusa. A total of 450 persons (comprising 150 each of parents, students and school administrators) were randomly selected from each local government. Structured questionnaires were used in collecting data from the three groups. In order to evaluate the adequacy of the research instrument and to correct all possible problems that could arise in the main study, a pilot study was conducted before the commencement of the study. This was to ensure that the questions are appropriate, terms used are clear and that completing the questionnaire is timely. 45 participants were used in the pilot study, based on the view that a pilot sample can be 10% of the sample projected for the larger main study (Connelly, 2008). This is also consistent with the view by Perneger *et al.* (2015) that suggests that the use of 30 participants is a reasonable starting point when pre-testing questionnaires. Consequently, the pilot study was done in two of the schools within the population but outside the sample (where armed banditry had occurred) to ascertain the reliability and validity of the instruments. A total of 45 respondents, comprising 15 students, 15 parents and 15 school administrators were examined. There were 28 males and 27 females. On the average, it took them about ten minutes to have the questionnaire completed. To test the reliability of the questionnaire, the Cronbach alpha reliability method was used. The result showed a score of 0.78, an indication of a high level of internal consistency. A test re-test correlation of 0.75 and above signifies good reliability (Shuttleworth, 2009). In this context, the instrument used in the study is reliable.

Samples and Sample Size

Questionnaires: A total of 450 persons will be systematically selected as respondents for the structured questionnaires, distributed as follows:

Respondent	No. of Primary and Post-Primary Schools No. of			
	Jibia LGA	Basatri LGA	Danmusa LGA	Total
Students	90	90	90	270
Parents	50	50	50	150
School Admin	10	10	10	30
Total	150	150	150	(450)

Note: (50 secondary students 40 primary pupils = 90)
(25 each from secondary and primary school parents = 50)

Technique of Data Analysis

A cross-sectional regression model of the following form provides a useful basis of evaluating the effect of armed banditry on educational outcomes:

$$Education = f(armed\ banditry,\ other\ variables) \qquad (1)$$

Equation (1) is amplified in the following econometric specification:

$$Y_i = \alpha_0 + \alpha_1 ARMB_i + \beta_i X' + \varepsilon_i \qquad (2)$$

Where Y is a vector of educational outcomes. Four indicators of educational outcomes were used in the study. These are (i) enrolment; (ii) attendance; (iii) academic performance: and (iv) teacher effectiveness). ARMB is a vector of armed banditry indicators (armed attacks, kidnapping and forced displacement) while X is a vector of explanatory variables. The α's and β's are parameters estimated, i denotes cross section, and ε_t is a Gaussian white noise. Consequently, four models (reflecting each of the four educational outcomes) were estimated. To evaluate if armed banditry is modulated by individual covariate, the study interacted two of the indicators of armed banditry (i.e. armed attacks, and kidnapping) with two covariates, namely *Level of Education* and *Family Size*.

Measurement of Variables

Dependent Variables: Four sets of variables were constructed from the questionnaire, namely enrolment**,** attendance, academic performance and teacher effectiveness. Enrolment was measured by the number of students admitted, attendance by the class register of students at the end of a term, academic performance by the average score obtained by students after examination and teacher effectiveness by a weighted score of the number of classes delivered and attendance at school.

Independent Variables: The main independent variable (i.e. armed banditry) was measured by three indicators, namely the incidence or number of armed attacks, kidnapping and forced displacement. Based on the extant literature, factors that influence educational outcomes,

including respondent's level of education, gender, marital status, and age were used as individual-level covariates.

Results and Discussion

The demographic characteristics of respondents are presented in appendix 1. There are 258 males (representing 57%) and 192 females (representing 43%) of the respondents respectively. Majority of the respondents are between the ages of 16 and 30 (80%) while 20% of the respondents are above 30 years of age. In terms of marital status, respondents who are married are 47% of the sample, closely followed by those who are single (39%), while the widowed and divorced are 6% and 8% respectively. On the level of qualification of parents and school administrators (which are 300 out of the 450 respondents), it can be seen that over half (62%) have a tertiary education, this figure being explained by all 150 school administrators (which include teacher, head-teachers and principals in primary and post-primary schools) having at least the National Certificate of Education (NCE). 25% (74 of the respondents) have secondary education while 40 respondents (13%) have primary education. Lastly 22% of the respondents are farmers, while 50%, 20% and 8% are in the teaching profession, business and civil service respectively.

The correlation matrix of the armed banditry and educational outcome indicators are presented in appendix 2. Importantly, all the indicators of armed banditry have a significant negative correlation with the educational outcome indicators except academic performance which has a positive but not a significant correlation with forced displacement. Additionally, the armed banditry indicators have a positive and significant correlation, indicating that each tends to rise or fall with one another. Lastly, the correlation among the main explanatory variables (i.e. armed banditry indicators) are not excessive, the highest being between armed attacks and kidnapping (72%), all of which indicate that there is no multicollinearity problem.

The results of the estimated equation are presented in table 1.

Table 1: Estimated Results

Independent variables	Dependent variables			
	Enrolment	Attendance	Academic performance	Teacher effectiveness
Armed Banditry				
Armed attacks	−0.542195**	−3.4586*	−1.4238**	−0.1020***
	(0.2415)	(1.1280)	(0.5172)	(0.0548)
	[−2.2451]	[−3.0661]	[−2.7529]	[−1.8602]
Kidnapping	−0.3617*	−1.6724***	−0.5592**	−0.3752***
	(0.0952)	(0.9262)	(0.2302)	(0.2196)
	[−3.7994]	[−1.8057]	[−2.4289]	[−1.7086]
Forced displacement	−0.7486**	−0.7575*	−0.3760	−0.4969**
	(0.3493)	(0.1923)	(1.0045)	(0.1969)
	[−2.1431]	[−3.9400]	[0.3743]	[−2.5238]
Individual Covariates				
Gender (Base: male)	0.20561*	0.8085**	−1.7509*	0.2405
	(0.03852)	(0.4475)	(0.4635)	(0.1988)
	[5.3377]	[1.8066]	[−3.7772]	[1.2101]
Age	0.04433	1.6043	2.4757*	0.0788
	(0.05571)	(0.9632)	(0.7167)	(0.1920)
	[0.7957]	[1.6656]	[3.4543]	[0.4105]
Marital status (Base: married)	0.3902	0.4097	0.9646***	0.2087
	(0.29554)	(0.3194)	(0.5050)	(0.1972)
	[1.3203]	[1.2830]	[1.9100]	[1.0586]
Level of education	0.45123*	1.7643**	1.3848*	0.3257
	(0.1003)	(0.7389)	(0.3051)	(0.2096)
	[4.4988V	[2.3878]	[4.5387]	[1.5543]
Occupation (Base: farming)	−0.70412	−0.0687	−5.2365*	
	(0.819)	(0.2109)	(0.9695)	–
	[−0.8597]	[−0.3257]	[−5.4011]	
Family size	−1.62619**	−0.8435**	0.4890	−0.2822
	(0.6305)	(0.4040)	(−0.6013)	(0.1716)
	[−2.5792]	[−2.0881]	[−0.8132]	[−1.6440]
Interaction terms				
Armed attacks*Level of education	−0.15372	−0.3412**	−0.3565**	−1.4910**
	(0.3615)	(0.1477)	(0.1446)	(0.6538)
	[−0.4252]	[−2.3111]	[−2.4648]	[−2.2804]
Kidnapping*Level of education	−1.19241	−0.7445*	−2.5082*	−0.5160*
	(1.04425)	(0.2555)	(0.8091)	(0.0904)
	[−1.1419]	[−2.9144]	[−3.1000]	[−5.7099]
Armed attacks*Family size	−1.66724*	−0.9504***	−0.3768	0.3533
	(0.55323)	(0.5320)	(1.0902)	(0.2521)
	[−3.0136]	[−1.7865]	[−0.3457]	[1.4011]
Kidnapping*Family size	−0.18482***	−1.0319*	−0.0041	−0.1490
	(0.1023)	(0.3645)	(0.0515)	(0.3160)
	[−1.8066]	[−2.8308]	[−0.0796]	[−0.4714]
Constant term	0.1547	−1.6724***	−0.2100	−0.1462
	(1.2335)	(0.9262)	(0.2935)	(0.1942)
	[0.1254]	[−1.8057]	[−0.7154]	[−0.7528]
R^2	0.63	0.58	0.67	0.64
Adjusted R^2	0.59	0.51	0.61	0.60
F-statistics	7.923	11.35	8.21	9.84
Prob (F-stat)	0.000	0.000	0.000	0.000
Mean VIF	1.201	1.331	1.543	1.399
DW	2.324	1.89	2.25	2.06
BPCW (p-value)	0.7813	0.2034	0.2654	0.9254
	(0.3631)	(0.8231)	(0.6873)	(0.7215)
RESET (p-value)	0.52981	0.8721	0.2473	0.5051
	(0.4413)	(0.6352)	(0.3054)	(0.5742)

Note: *, ** and *** denote statistically significant at 1%, 5% and 10% levels respectively. VIF: Variance Inflation Factor; DW: Durbin-Watson statistics; BPCW: Breusch-Pagan/Cook-Weisberg test for heteroskedasticity; RESET: Ramsey residual specification error test.

Source: Authors' computation from estimation data

Armed Banditry and Educational Outcomes
Results in table 1 show that all the indicators of armed banditry have a significant negative effect on the various dimensions of educational outcomes. Consequently, armed attacks have a statistically significant effect on enrolment, attendance, academic performance and teacher effectiveness. The most effect of armed attacks is on school attendance, giving the associated size of coefficient. This is related to the extant literature that shows that banditry creates an unstable learning environment, resulting in school closures and the consequent psychological trauma on students (Kitabu & Mohammed, 2023).

Enrolment is a negative and statistically significant function of all armed banditry indicators. Thus, armed attacks, kidnapping and forced displacement have a significant adverse effect on student enrolment. This can be linked to the issues of psychological states of learners or students when confronted with the challenges of armed violence. There is usually high level of absenteeism or lower attendance rates in places that experience armed violence. In most cases, children and wards are withdrawn from schools by their parents and guardians. Reduced student turnout affects the number of classes they can attend at a given time, leading to possible lower academic performance due to the inability of student to cover the expected curricula.

Armed banditry also negative affects academic performance, as indicated by the academic performance coefficients in table 1. Previous findings show that prolonged student truancy has a strong positive correlation with poor academic performance (see for instance, Omuya, 2023; Magaji & Abubakar, 2024; Ukozor, et al., 2024). Thus, students' cognitive functioning is adversely affected due to the anxiety and trauma that the students face in an environment of increased insecurity. This is in line with the prior findings by Agboola et al. (2021) and Ogunode and Adihikon (2023).

The case of kidnapping is pertinent. The results in table 1 indicate that kidnapping significantly reduces educational outcomes. Kidnapping (whether of students, parents and teachers) tend to have adverse effect first on those kidnapped and second on their immediate family and the larger community. When parents are kidnapped for example, the children and family members are thrown into confusion. Children of kidnapped parents are hardly in a good position to attend schools during the ordeal of their parents, as efforts are geared more towards the payment of ransoms and recovery of parents than on the children's education. Additionally, the children are distracted from concentrating on their education and live with fear, all of which affect their capacity to perform academically. The results are consistent with the findings by Ogbuabor (2019), Daramola (2023), and Stella (2023). Forced displacement has a significant negative effect on educational outcomes except for academic performance for which it is negative but not significant. Forced displacement increases fear and stress levels in affected communities. This is true for parents, students and teachers. The fear of recurrence increases when a community is attached by armed bandits, which puts enormous pressure on the inhabitants. Particularly, it has been shown by Femi-Lawal et al. (2023) that in conflict ridden areas, the stress levels are always higher among students.

Individual Covariates

The results of the effect of gender on educational outcomes are interesting. Male tends to have better enrolment and attendance compared to female and this is statistically significant at 1% and 5% respectively. This may be due to cultural factors which tend to place more emphasis on male child education. With better enrolment, it is expected that male would record better attendance and vice-versa. However, when it comes to academic performance, the results indicate that compared to female, male tends to have less favourable performance. The effect of gender on teacher effectiveness is positive, an indication that compared to female, male tends to be more effective, but this is not a significant factor.

The effect of age on educational outcomes is generally positive and in the case of academic performance, it is significant. This may be due to past accumulation of knowledge and the results of experience. For marital status, the results indicate that compared to single status, being married has a significant positive effect on academic performance. An interesting result comes from parents' level of education and its effect on the academic performance of their children or wards. As shown in table 1, education has a significant positive effect on enrolment, attendance, and academic performance, but this is not the case for teacher effectiveness. The more educated the parents, the more likely they are to advance the career choices of their children and other dimensions of their wellbeing including self-esteem, empathy, positive interpersonal relationships, self-concept, self-confidence, self-control and social skills (Eryilmaz, 2011; Driscoll, 2013).

Furthermore, farming, compared to other occupations tends to negatively affect educational outcomes of children. In other words, children will tend to perform less when their parents and guardian are farmers compared to other occupations. This result is not surprising, given that in the population of the respondents generally, most farmers tend to have less education, less income and less exposure compared to other occupations, all of which affect their capacity to influence their children in several academic respects. In the extant case, being a farmer significantly reduces the academic performance of their child, compared to such professions as teaching, business and being in the civil service. This may be due to the fact majority of local farmers are illiterate, have low income and generally low status in their communities. All of these affect their active participation in their children's academic careers. First parent's education predicts their earnings (Schuller, 2007), which in turn benefit the capacity to educate their children. Moreover, active parental involvement may occur because the parent is educated, set standards for their children, and encourage their children to hard work towards achieving set goals (Amatea et al., 2006; Yulianti, Denessen & Droop, 2018). Interaction among parents and their children including helping with homework is noted in the literature as instrumental towards life-long achievements including academic progress (Smetana, 2011; Bottoms et al., 2009). The case of family size is also instructive. Whereas its effect is significantly negative for enrolment and attendance, its effect on academic performance is positive but not significant. Family size also reduces teacher effectiveness, but the effect is not significant.

Interaction Terms

The study examines the interaction terms between armed banditry and two individual covariates, namely level of education and family size. As shown in table 1, the significant negative effect of armed banditry on educational outcome is not changed by level of education and family size. First, the interaction between armed banditry and education, on one hand, and between armed banditry and family size on the other hand is negative but not significant. Kidnapping interacted with family size significantly reduces enrolment and attendance. Its effect on academic performance and teacher effectiveness is negative but not significant.

Diagnostics

The results of the goodness-of-fit show that, as a minimum, about 51% changes in educational outcomes are explained by changes in the covariates used in the model. The statistically significant F-statistics suggest that all the variables are jointly significant in explaining the variation in educational outcomes.

The adequacy of collinearity among the regressors is indicated by the mean variance inflation factor (VIT), suggesting the absence of high multicollinearity. This reinforces the results of the correlation matrix presented in appendix 2. The Durbin-Watson (DW) statistics of approximately 2 in numerical term in each case, is an indication that the models estimated are free from the autocorrelation problem. The Breusch-Pagan/Cook-Weisberg test for heteroskedasticity indicates that the null hypothesis is not rejected, as shown by the non-significant value. Overall, each of the models does not suffer from specification bias, as indicated by the non-significant RESET statistics.

Conclusion and Recommendations

In this study, the effect of armed banditry on educational outcomes was examined. It uses cross-sectional data obtained from students, parents and school administrators in rural communities in three affected local government areas of Katsina State, Nigeria. Structured questionnaire was administered on a sample of four hundred and fifty (450) respondents in the affected rural communities. Deploying the Ordinary Least Squares technique, the estimated regression coefficients show that the indicators of armed banditry (armed attacks, kidnapping and forced displacement) have a significant negative effect on educational outcomes (school enrolment, attendance, student academic performance and teacher effectiveness). It was also shown that the negative effect of armed banditry is hardly influenced by covariates such as parents' level of education and the size of family.

The empirical findings have a major policy implication. The study underscores the adverse effect of armed banditry on key educational outcomes, which predicts worsening human capital development in the affected places, if uncontrolled. Based on the findings, public policy aimed at addressing armed banditry is recommended. This requires a multi-pronged strategy which involves both the government at the national, state and local government levels, including the citizenry. This is particularly important, giving that while the fundamental role of government is the protection of lives and property, this function is

constrained at the state and local government levels, where the major law enforcement agencies, such as the army and police are not under their direct control.

In curtailing armed banditry, specific implementation trajectory is crucial. First, the police require intensified funding and training on the use and deployment of modern techniques of crime fighting. Second, the use of local vigilantes is imperative in curtailing the activities of armed bandits. However, such vigilantes should be adequately trained in intelligence gathering and use, while facilitating clear communication channels and synergy between them and the law enforcement agents. Above all, mass orientation through various media (oral, electronic and print), including the use of traditional and religious leaders cannot be overemphasized. This is with a view to improving the knowledge of the citizens on various response measures before, during and after armed banditry attacks in order to frontally deal with the menace.

An area that is suggested for future study is to distinguish between the intensity of armed banditry in affected communities and whether such intensities are significant in the effect that armed banditry has on educational outcomes. Additionally, future studies that cover other states of Nigeria will be critical in uncovering whether the effects of armed banditry on educational outcomes is uniform or are mediated by other factors including location or geography, culture, urbanization and the like.

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Appendix 1: Demographic Characteristics of Respondents

	Number	Percentage (%)
Gender		
Male	258	57
Female	192	43
Age		
6-18	162	36
19-30	197	44
31 and above	91	20
Marital Status		
Married	211	47
Single	176	39
Widowed	28	6
Divorced	35	8
Level of qualification (parents and School Administrators)		
Primary	40	13
Secondary	74	25
Tertiary	186	62
Occupation		
Farming	64	h22
Teaching	150	50
Business	61	20
Civil Servant	25	8

Source: Authors' computations, 2025

Appendix 2: Correlation Matrix

	Armed attacks	Kidnapping	Forced displacement	Enrolment	Attendance	Academic performance	Teacher effectiveness
Armed attacks	1.000 –						
Kidnapping	0.721 (0.000)	1.000 –					
Forced displacement	0.674 (0.000	0.638 (0.000)	1.000 –				
Enrolment	−0.670 (0.000)	−0.696 (0.000)	−0.563 (0.315)	1.000 –			
Attendance	−0.608 (0.000)	0.715 (0.000)	−0.613 (0.057)	0.908 (0.000)	1.000 –		
Academic performance	−0.557 (0.001)	−0.745 (0.000)	0.435 (0.172)	0.832 (0.083)	0.917 (0.000)	1.000 –	
Teacher effectiveness	−0.514 (0.003)	−0.688 (0.000)	−0.578 (0.753)	0.468 (0.0193)	0.846 (0.000)	0.923 (0.000)	1.000 –

Note: Probability values are in parenthesis
Source: Authors' computations, 2025