

(RESEARCH ARTICLE)



## Effects of banditry security risk on livelihood of cattle herders in Katsina State, Nigeria

ILIYA Umar Julius and ACHOJA Felix Odemero \*

*Department of Agricultural Economics, Delta State University, Abraka, Nigeria.*

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### Abstract

Livestock enterprise is an important source of livelihood to many people in Nigeria. Vulnerability of livestock business to insecurity risk is a major threat to the livelihood of stakeholders in the livestock value chain (cattle herders and marketers). Insecurity risk among livestock herders has a ripple effect in the economy of Nigeria. Empirical information is scanty for the clarification and development in security risk control model especially with the emergence of banditry in Nigeria. This study broadly examines the effect of insecurity risk on the livelihood of livestock herders in Katsina State, Nigeria. Primary data obtained with the use of structured questionnaire from randomly selected 200 respondents were analyzed by descriptive and inferential statistical tools (mean, frequency distribution table, probability and multiple regression). The result shows that the probability of banditry attack was 20%. The major benefit derivable from livestock business by herders is income generation. The major cause of banditry insecurity was unresolved conflict between farmers and herdsmen (100%), unemployment/deliberate negative tendency of bandits to climb wealth ladder (93.5%) and corruption among government officials (93%). Test of hypothesis indicates that all the insecurity indicators (cattle rustling, theft, kidnapping and tax imposition) negatively and significantly ( $P < 0.05$ ) affected livelihood capital (asset) (income savings and herd size). There are sufficient evidence to conclude that livelihood capital of cattle herders is worst hit by banditry insecurity risk in Katsina State, Nigeria. It was recommended that government should adopt amnesty policy of disarmament, reintegration and rehabilitation of repentant bandits. This study has expanded the frontier of literature of the ripple effects of banditry insecurity on cattle value chain and implications for policy options.

**Keywords:** Effects; Banditry; Security; Risk; Livelihood; Cattle Herders

### 1. Introduction

The livestock industry as an important component of the general agriculture is a key contributor to the economic growth and development of any nation as it has the capacity for providing food, employment, farm energy, manure and revenue for the farmers as argued by Ojiako and Olayode (2008). According to Richard *et al* (2011) Livestock production is the farming of domesticated terrestrial animals to produce food, fibre and labour. The Livestock occupy almost one-third of the ice-free terrestrial land surface of the globe and are an integral part of human society and history, providing multiple benefits beyond the obvious supply of food and fibre.

In many parts of the world livestock are also culturally embedded into the social fabric of society, from being used as a banking system in Africa through to use as religious symbol in India. Livestock production is important for the food and nutrition security of countries around the world, with a more direct influence on the socio-economic status of developing countries, especially in Sub-Saharan Africa (SSA), where it constitutes a significant source of livelihood. Pastoralists reside in over 21 countries across the African continent.

\*Corresponding author: ACHOJA Felix Odemero

In Nigeria, livestock production is dominated by smallholders, mainly in the subsistence crop-livestock production system. Regarding the production system, cattle, sometimes with sheep and goats, are largely reared through pastoralism –free grazing and about 78 per cent of poultry birds are kept in free-range or semi- intensive production systems (FAO, 2018).

Livestock are also a vital source of employment in rural areas and developing countries, providing food, a source of power for draught, plowing for crops and transport through to providing clothing products. According to (Ogunniyi and Ganiyu, 2014), there are about 1 million heads of sheep and 7 million goats in the sub humid region of the country representing 3% and 16% respectively of the total ruminant animals in the region. The authors further reported that Livestock production in Nigeria constitutes 6% of the total Gross Domestic Product (GDP) and 25% to the agriculture sector over the last two decades. However, many challenges, including global climate change, regulatory policies, population increase, urbanization, and conflict, confront livestock production (Latino, *et al*, 2020; Simpkin *et al.*, 2020; Thornton, 2010).

In Nigeria, livestock production is most vulnerable to external factors, majorly is the rising level of conflicts, including terrorism. Many parts of Sub Saharan Africa continue to experience violent conflicts that constrain sustainable food security, livelihoods, and development in the region. These conflicts are many and complex. They can be inter-ethnic, intra-ethnic, or cross border in nature. Excluding inter-state wars, conflicts in Africa mostly manifest themselves as pastoralist conflicts (cattle raiding or rustling, violent disputes at watering points, etc.), highway banditry, abductions, generalized insecurity and other crimes (Abadie, *et al*, 2010). Many of these communities are affected by conflicts, with associated potential impacts on their livelihoods.

In Nigeria, insecurity is a recurring phenomenon that threatens the livelihood and well-being of its citizens. Krantz, (2001), argued that a security problem arises when someone, a person or a group- threatens another's life, limb or livelihood. Ewetan and Urhie (2014) defines insecurity as breach of peace and security, civil, social, economic and political that contributes to recurring conflicts and leads to the wanton destruction of lives and property. Achumba, Ighomereho and Akpor-Robaro (2013) described insecurity from two perspectives; as a condition of being susceptible to danger and being exposed to risk or anxiety in anticipation of some misfortune which could be caused both internally and externally. In Nigeria it was observed that insecurity has increased since the country's return to democratic rule (Fourth Republic) in 1999. The level of Nigeria's insecurity has increased in the past decade which metamorphosed in to Farmer - Herdsmen clashes, Boko Haram insurgency in the Northeast by 2009, banditry and cattle rustling gaining dominance in the North West. Northern region in particular witnessed high increase in cattle rustling, human trafficking, car and motorcycles theft, livestock and crops theft, ritualism, kidnapping of people for ransom and other petty crimes in the rural areas (ungoverned areas) and have become major security challenge that continue to fuel violent conflict and insecurity (Kwaja and Abdul, 2015). According to Bashir and Mustapha (2021) The menaces of cattle rustling, and banditry activities have become a serious threat to the safety and lives of the entire people of Zamfara State (including Anka and Maradun local government area) and the case of Katsina state is not different. Furthermore, rural banditry is accompanied by looting, rape, kidnapping, organized attacks on villages and communities. Momale (2015), argued that cattle rustling is a form of rural banditry and it involve the use of arms to steal household entire livestock possession, thereby threatening the very existence of the affected household and communities. These have led to loss of so many lives and destruction of properties. Cattle rustling has been described as the act of stealing cattle primarily for economic gain (Abdullahi & Madappalli, 2017). It has also been conceived as a criminal act of taking cow by force for economic purposes (Okoli & Okpaleke, 2014). Banditry is the act of robbery or violent crime especially in an area where the rule of law has broken down. It mostly involved the use of coercion and threat to rob, rape, and kill (Okoli & Okpaleke, 2014). Cattle rustling and banditry have been facilitated and made sophisticated by the proliferation of arms and dagger (Funteh, 2019). It has developed to become an organized crime that goes beyond national to transnational (Okoli & Okpaleke, 2014). Statistics have shown that so many cattle have been stolen as a result of these organized crimes (Ibrahim, et al., 2016). These vices have also resulted in various reprisal killings, raiding of villages, and raping and kidnapping of men and women. As a result, many (both farmers and herdsmen) have decided to migrate to avoid the level of uncertainty and threat to security and safety which have prevailed in the communities. The scourge of banditry has posed a severe threat to the security and development of the Northwest Region. Reports indicate the flourishing of bandit groups, whose members were seen displaying automatic weapons, terrorizing herders in settlements, farms, villages, and the highways to kill people, kidnapping, and pillaging cows (Olaniyan, 2018). Kaduna, Katsina and Zamfara have been the most critical hot spots in recent times.

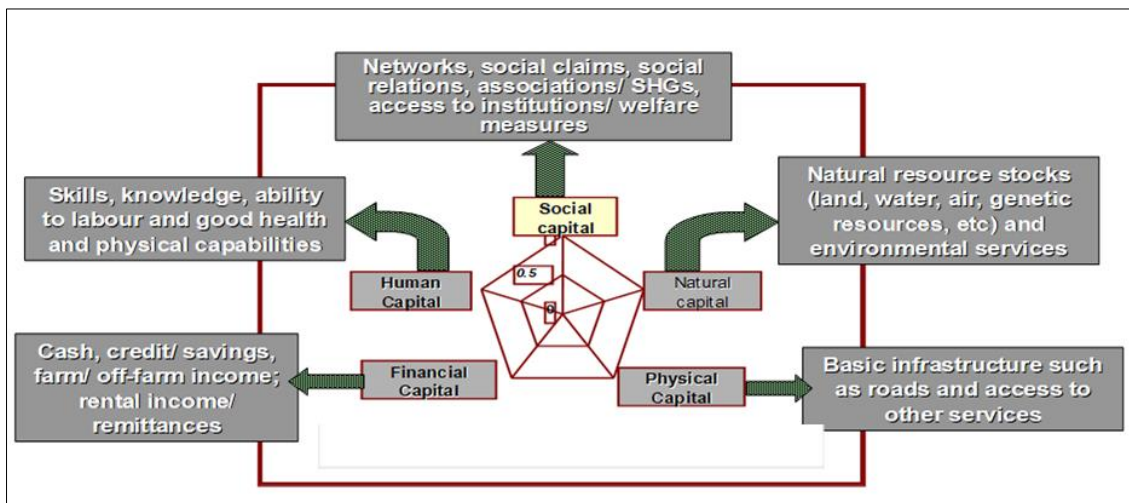
The most affected communities are in the frontline local government areas of Jibia, Batsari, Safana, Danmusa, Kankara, Faskari, Dandume and Sabuwa. The activities of bandits in these areas have dispossessed residents of their foremost means of livelihood and disrupted the operation of the usually dynamic weekly markets. (Abdulgafar, 2021). This calls for concern by the stakeholders to reverse the ugly trend.

Livestock rearing is one of the major components of agricultural activities performed by more than two thirds of the world’s rural populace due to its benefit in poverty reduction (Philip,2010). Households may sell their livestock and use the proceeds to build or extend their dwellings or acquire capital equipment for farming purposes. Livestock can be perceived as capital assets that provide a form of insurance to poor households that, for various reasons, do not have adequate access to formal financial services (Diana and Lisa, 2014).

Hence, livestock possession plays multiple social, economic and religious roles in pastoral livelihoods, such as providing a regular source of food in the form of milk, meat and blood for household members, cash income to pay for cereals, education, health care and other services. In pastoral communities, Cattle is essential for the payment of dowry, compensation of injured parties during raids, symbol of prosperity and prestige, store of wealth and security against drought, disease and other calamities. The local livestock farmers have been leveraging on these numerous benefits for years for the sustenance of their livelihood not until banditry security challenges begin to hit harder on them. The scourge of banditry has posed a severe threat to the security and development of the Northwest region.

Reports indicate the flourishing of bandit groups, whose members were seen displaying automatic weapons, terrorizing herders in settlements, farms, villages, and the highways to kill people, kidnapping, and pillaging cows (Olaniyan, 2018).

People have migrated fromJMB the rural communities of the State because of the fear and the uncertainty. Consequently, the security and economy of rural communities has been affected, and people no longer want to live in the rural areas. The spate of banditry, kidnapping, cattle rustling and killings of livestock’s rears bedeviling Katsina State is serious threat. Sanchi, *et al*(2022) in his research posits that, 41% of the respondents saw banditry as a threat to livestock business in general.

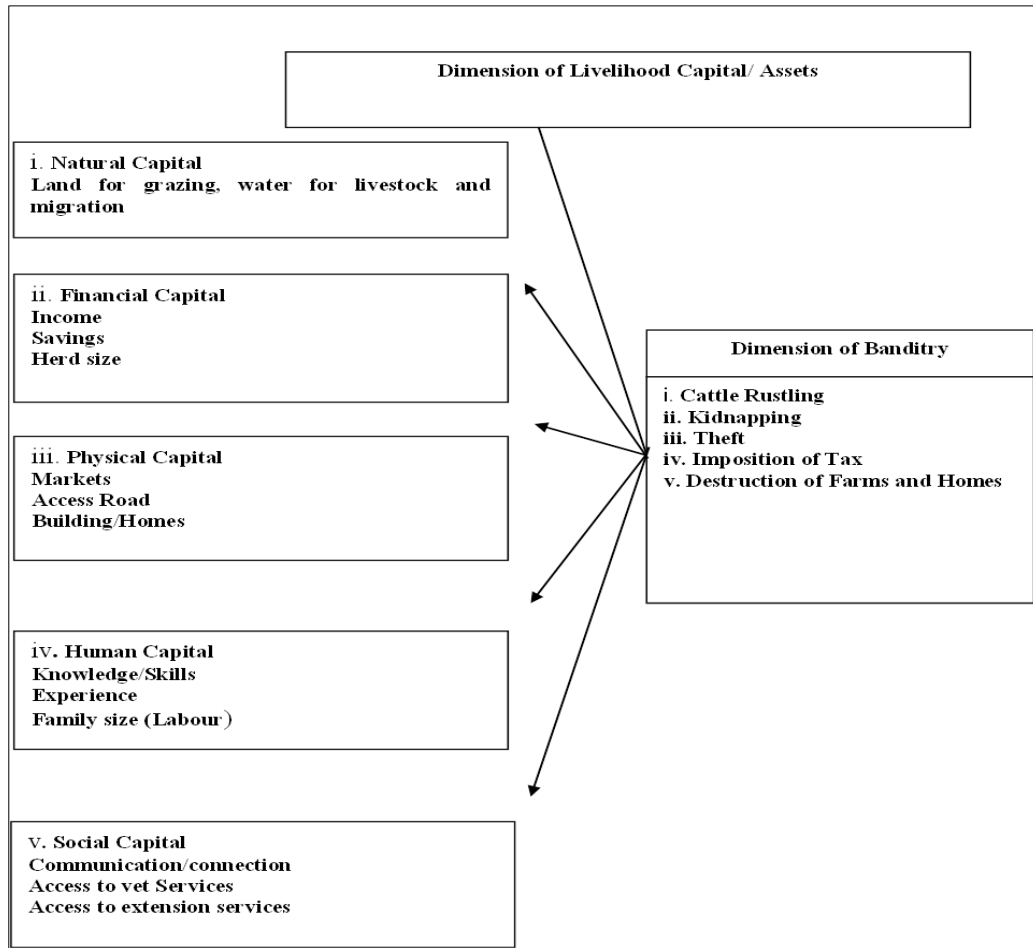


Source: Adopted from Achoja and Akparobi,(2023)

**Figure 1** Livelihood Asset Pentagon

Identifying the causes of banditry insecurity will provide will help security agents to design strategies to resolve the banditry insecurity in the region. Government will find this research useful in designing policies and security architecture that will curtail the menace of banditry in the farming communities. It will also help the government to know where security resources should be concentrated in combating the menace of banditry. This research is a useful reference material for further study on banditry security risk.

Livelihood is based on some determinants among which are capital, land, social, finance etc. The effect of banditry on livelihood is extensive, in addition to complicating the security crisis in the country, it has also increased the incidence of forced migration, food insecurity, cattle rustling, and destruction of property, health challenges, displacement, humanitarian crises, and death. Between 2018 and 2020, an estimated 4900 people lost their lives to bandit attacks, while 309 000 internally displaced persons and 60 000 refugees have been recorded. ACAPS (2020). Therefore, it is important to have a critical investigation of the livelihood assets. Livelihood pentagon of Choudhury, *et al* (2005) and modified by Achoja and Akparobi (2023) emphasized a significant 2 - way linkage between livelihood capital/asset and the sustainability of agricultural business. Among the various components of a livelihood, the most complex is the portfolio of assets on which cattle herders build their living.



Source: Conceptualized by the Researcher. (2023)

**Figure 2** Conceptual model of the study

Arising from the frameworks in Figures 1 & 2, it is assumed in this study that security risk that affects the cattle herders can also affect their livelihood indicators such as income, savings and herd size.

The situation needs to be given its rightful attention by both the local, State and the federal governments and other stake holders to address the problem. Despite the magnitude of banditry activities in the State, enough research has not been carried out to establish the effects of banditry security risk on the livelihood of the affected livestock rears.

Hence, the need for this study.

The broad objective of the study was to examine the effect of banditry security risk on livelihood of cattle herders in Katsina State, Nigeria. The specific objectives of the study were to:

- ascertain evidence and frequency of banditry security risk in Katsina state.
- examine the causes of banditry security risk on herder's livelihood in Katsina State.
- assess the effect of banditry security risk on the herder's livelihood in Katsina State.
- identify banditry security risk management strategies.

### 1.1. Hypotheses of the Study

The following hypotheses were formulated to test and guide the study

- Ho1: There is no significant effects of banditry security risk on income of herder's household.
- Ho2: There is no significant effects of banditry security risk on savings of herders.
- Ho3: There is no significant effects of banditry security risk on herd size.

## 2. Materials and methods

### 2.1. Study Area, Sampling Techniques and Sample Size

The study was conducted in Katsina State because of prevalent activities of banditry in the State. Additionally, there are more livestock farmers in the area and their culture is familiar to me. Am also conversant with the local language spoken and understood by many in the study area. This will make my interaction and data collection easier from the target respondents. Katsina State covers an area of 23,938sq km, is located between latitudes 11°08'N and 13°22'N and longitudes 6°52'E and 9°20'E. The State is bounded by Niger Republic to the North, Jigawa and Kano states to the East, Kaduna State to the South and Zamfara State to the West. It's worthy to mention that most of these states are affected with banditry activities which make it easier for them to operate in the front lines or border LGAs with Katsina State. The State has 34 Local Government Areas, for the purpose of this study eight front line LGAs that are mostly affected by banditry namely Jibia, Batsari, Safana, Danmusa, Kankara, Faskari, Dandume and Sabuwa were considered. According to the 2021 population projection, Katsina State has a total population of 5,801,584 million, accounting for 4.1% of Nigeria's total population. The main ethnic group are Hausa and Fulani and Islam is the predominant religion practice. The language spoken in the State are Hausa and Fulfulde. Livestock husbandry, crops farming and other associated business activities constitute the mainstay of the economy of the State. Katsina State being located at the border of Nigeria with Niger Republic has exposed it to bandits (Abubakar, 2014).

All the cattle herders in Katsina State, Nigeria constituted the population for study. Out of the 34 Local Government Areas in Katsina State, 8 Local Government were purposively selected based on the prevalent activities of the bandits in those local government areas. Four (5) communities were randomly selected from each of the selected Local Government Area, from these communities, five (5) livestock rearing households were selected making a total of 200 respondents in the study area.

### 2.2. Data Collection and Analytical Techniques

Data were collected using a structured questionnaire and 4 point Likert - type scale (4=strongly agree, 3= agree, 2=strongly disagree and 1=disagree). Additionally, the respondents were guided by personal interview. The questionnaire was structured based on the specific objectives of the study. Cow markets in the affected LGAs and dependent homes or IDP camps were mostly targeted places to meet the respondents. This study used the financial capital indicators as the dependent variable to represent the livelihood.

Descriptive statistics such as percentage, mean, frequency, variance etc were used to achieve the objective (2), (3), (5), (6), (7) and (8) while objective(1) was achieved using probability. Objective (4) was realized using multiple regression.

### 2.3. Model Specification

The probability model for evidence and frequency of banditry is given below:

$$P(BA) = Q/Y \dots \dots \dots (1)$$

Where

- P (BA) = Probability of banditry attack in the study area.
- Q = Number of times bandits attack.
- Y = Total number of years of banditry activities in the study area.

Multiple Regression model.

The model was expressed in implicit form as shown in equation below:

$$INC = f(CTR_1, KNP_2, THF_3, ITAX, DPL_5, U) \dots \dots \dots (2)$$

$$SVS = f(CTR_1, KNP_2, THF_3, ITAX, DPL_5, U) \dots \dots \dots (2)$$

$$HSZ = f(CTR_1, KNP_2, THF_3, ITAX, DPL_5, U) \dots \dots \dots (2)$$

The functional form is expressed in the implicit forms as:

Linear form

$$Y = a + b_1CTR_1 + b_2KNP + b_3THF + b_4ITAX_4 + b_5DPL_5 + U \dots \dots \dots (3)$$

Semi-log form

$$Y = b_0 + b_1lnCTR_1 + b_2lnKNP_2 + b_3lnTHF_3 + b_4lnITAX_4 + b_5lnDPL_5 + U \dots \dots \dots (4)$$

Double-log form

$$lnY = b_0 + b_1lnCTR_1 + b_2lnKNP_2 + b_3lnTHF_3 + b_4lnITAX_4 + b_5lnDPL_5 + U \dots \dots \dots (5)$$

Exponential form

$$lnY = b_0 + b_1CTR_1 + b_2KNP + b_3THF + b_4ITAX_4 + b_5DPL_5 + U \dots \dots \dots (6)$$

**Table 1** Description of variables, in the multiple regression model

Symbols	Description	Unit of measurement	Apriori expectation
Dependent variable = (Livelihood capital indicators)			
INC	Income	Naira	
Independent variable			
CTR	Cattle rustling	Naira	-ve
KNP	Kidnapping	Naira	-ve
THF	Theft	Naira	-ve
ITAX	Imposition of tax	Naira	-ve
DPL	Displacement cost of banditry	Naira	-ve
b <sub>0</sub>	Intercept term	Naira	-ve
b <sub>1</sub> - b <sub>5</sub>	Coefficient of parameter to be estimated		
U <sub>i</sub>	Error term		

**Table 2** Description of variables, in the multiple regression model

Symbols	Description	Unit of measurement	Apriori expectation
Dependent variable (Livelihood capital indicators)			
SVS	Savings	Naira	
Independent variable			
CTR	Cattle rustling	Naira	-ve
KNP	Kidnapping	Naira	-ve
THF	Theft	Naira	-ve
ITAX	Imposition of tax	Naira	-ve
DPL	Displacement cost of banditry	Naira	-ve
b <sub>0</sub>	Intercept term	Naira	-ve
b <sub>1</sub> - b <sub>5</sub>	Coefficient of parameter to be estimated		
U <sub>i</sub>	Error term		

**Table 3** Description of variables, in the multiple regression model

Symbols	Description	Unit of measurement	Apriori expectation
Dependent variable (Livelihood capital indicators)			
HSZ	Herds size	No of cattle	
Independent variable			
CTR	Cattle rustling	Naira	-ve
KNP	Kidnapping	Naira	-ve
THF	Theft	Naira	-ve
ITAX	Imposition of tax	Naira	-ve
DPL	Displacement cost of banditry	Naira	-ve
b <sub>0</sub>	Intercept term	Naira	-ve
b <sub>1</sub> - b <sub>5</sub>	Coefficient of parameter to be estimated		
U <sub>i</sub>	Error term		

#### 2.4. Evidence and frequencies of banditry security risk in Katsina State

The results presented in Table 2 provide valuable insights into the prevalence and characteristics of bandit attacks in the study area. These findings are crucial for understanding the security dynamics in the region and can have implications for policy and community safety measures. This statistic indicates that a majority of the respondents (63.5%) reported the occurrence of bandit attacks in their environment. This high percentage suggests that bandit attacks are of significant concern for the population in the study area. On the other hand, 36.5% of respondents stated that there were no bandit attacks in the study area. This minority response is interesting, as it might indicate sectorial variations in the prevalence of such attacks or differences in perception among the respondents. Approximately a quarter of the respondents (25.2%) reported that bandit attacks occurred 1-2 times. This suggests that some areas may experience sporadic incidents of banditry. More than half of the respondents (52.8%) reported that bandit attacks occurred 3-4 times. This indicates that a significant portion of the population has experienced frequent bandit attacks while a smaller percentage (22%) reported bandit attacks occurring 5-6 times, this is still a noteworthy figure and may indicate areas with more persistent security issues. The mean occurrence of bandit attacks being 3 times in the study area provides a useful summary statistic. It suggests that, on average, residents experience bandit attacks three times, which indicates a moderately prevalent security concern. Over a third of the respondents (34.6%) reported that the duration of bandit attacks in their area was less than 5 years. This could indicate relatively recent security challenges. A significant portion (27.6%) stated that bandit attacks had persisted for 5-10 years. This suggests that some communities have been dealing with banditry for a more extended period. The largest percentage (37.8%) reported that bandit attacks had lasted between 11-16 years. This indicates that in many areas, bandit attacks have been a long-standing issue. The mean duration of bandit attacks being 8 years provides an important metric. It suggests that, on average, communities have been dealing with bandit attacks for a substantial period, indicating a persistent security challenge. In nut shell, the findings in Table 2 reveal that bandit attacks are a significant concern in the study area, with the majority of respondents affirming their occurrence. These attacks vary in frequency and duration, but on average, they represent a substantial security challenge that has persisted for several years. These results can inform policymakers, security agencies, and local communities in developing strategies to address and mitigate the impact of bandit attacks in the region. This is consonant with the study by Sanchi, *et al* (2022) as revealed in Table 2 indicates that all the 7 items posited their mean values ranging from 3.56 to 3.52. This revealed that the respondents posits that all the items indicated that armed banditry postulated high effect on cattle and sheep production. This means that armed banditry has high effect on all the categories of animal production. This finding agrees with the findings of Aliyu (2017) as they found banditry to have effect on ruminant production in Katsina state.

**Table 2** Evidence and frequency of banditry security risk among cattle herders in Katsina State

Variable	Frequency	Percent	Mean/Mode
Attacked by bandits			
Yes	127	63.5	Yes
No	73	36.5	
Number of attacks (N = 127)			
1 – 2 times	32	25.2	
3 – 4 times	67	52.8	3 times
5 – 6 times	28	22.0	
Duration of attack (N = 127)			
Less than 5 years	44	34.6	
5 – 10 years	35	27.6	8 years
11 – 16 years	48	37.8	

Attacked by bandits; Number of attacks (N = 127); Duration of attack (N = 127)

### 2.5. Probability of banditry attack in the study area

The results presented in Table 3 provide valuable insights into the probability of banditry attacks on livestock herders in the study area. The table categorizes the livestock herders into different probability ranges of banditry attacks. It shows that the majority of herders (63%) face a relatively high probability of banditry attacks, exceeding 0.20. This is a significant finding and suggests that a substantial portion of the livestock herders in the study area are at a heightened risk of experiencing banditry attacks. Minority at Lower Risk: On the other hand, a smaller percentage of livestock herders (3.9%) have a relatively lower probability of banditry attacks, falling within the range of 0.01-0.05. This group can be considered fortunate compared to the majority, as their risk of banditry attacks is significantly lower. The mean probability of banditry attacks in the study area is 0.20. This statistic provides a central measure of the overall risk level faced by the livestock herders. It indicates that, on average, herders in the study area have a moderate probability of experiencing banditry attacks. This information is crucial for understanding the overall risk landscape. The results highlight the heterogeneity in the risk levels faced by livestock herders. The concentration of a large proportion in the higher probability ranges suggests that certain areas or groups of herders might be particularly vulnerable to banditry attacks. These findings have significant policy implications. For example, areas with a high probability of banditry attacks may require increased security measures, while areas with lower probabilities may still benefit from preventative measures to maintain their lower-risk status. Additionally, resources and support can be directed towards herders facing higher risks. In summary, the results presented in Table 3 provide valuable insights into the distribution of banditry attack probabilities among livestock herders in the study area. The concentration of higher probabilities among a majority of herders underscores the importance of addressing this security issue, and the mean probability helps in quantifying the overall risk level. These findings can inform policy decisions and serve as a basis for further research in the field. This finding buttress Results the of Sanchi, *et al* (2022) in Table 5 which shows the effect of banditry on cattle and sheep production in which 52% of the respondents have experienced banditry attack at least once while.

**Table 3** Probability of banditry attack on Cattle Herders in the study area

Probability of banditry attack	Frequency	Percent	Mean/Mode
0.01 – 0.05	5	3.9	
0.06 – 0.10	29	22.8	(0.20)
0.11 – 0.15	8	6.4	
0.16 – 0.20	5	3.9	
Above 0.20	80	63.0	



### 3. Results and Discussion

#### 3.1. Causes of banditry security risk on herder's livelihood

The results presented in Table 4. provides the distribution of causes of banditry security risk on herder's livelihood.

##### 3.1.1. Unemployment/deliberate tendency to climb wealth ladder

This cause is reported by 93.0% of the respondents, indicating that a significant proportion of herders believe that unemployment contributes to banditry-related security risks in their livelihoods. It suggests that addressing unemployment may be crucial in reducing these risks. This result is in line with (Adagba, Ugwu, & Eme, 2012; Epron, 2019). Who identified high rate of unemployment, especially the increasing rate of youth's unemployment is what majorly prompts the jobless youths in the country to resort to violent crime like banditry.

##### 3.1.2. Poverty

Poverty is identified by 59.5% of respondents as a cause. This result indicates that economic vulnerability plays a significant role in the security risks faced by herders. Poverty alleviation programs may be a potential solution. This finding in line with Ewan (2007) posits that the North West has the highest poverty rate in Nigeria, considering its economic potential. As of 2019, poverty levels were above the national average of 40.1 percent for all seven states in the region, led by Sokoto (87.7 percent), Jigawa (87 percent) and Zamfara (74 percent) (United Nation International Children Fund, 2019). Millions lack access to basic health care and clean water, and coverage of immunization is well below national objectives.

##### 3.1.3. Proliferation of Small Arms

About 70.5% of respondents highlight the proliferation of small arms as a cause of banditry security risk. This finding emphasizes the importance of controlling the inflows of firearms across the Nigerian borders to mitigate such risks. This findings is agreements with raids (Okolie & Ugwu, 2014). Who identified illicit artisanal mining and proliferation of arms and light weapons in the region are veritable factors responsible for banditry and other security challenges, in states such as Katsina, Kaduna, Kebbi and Zamfara, there exists a clan of livestock bandits, who specialize in mass cattle rustling.

##### 3.1.4. Unresolved Conflict between Farmers and Herdsmen

Interestingly, this cause is reported by all respondents (100%). The unresolved conflict between farmers and herdsmen is a clear and critical issue contributing to security risks for herders, and immediate conflict resolution measures are essential. This result is in line with (Anka, 2017) who revealed that banditry came as a result of nearly four decades of unresolved conflicts between settled cultivators and nomadic herding communities that wander on the high plains of northern Nigeria particularly the North West geo-political zone in states such as Zamfara. This findings is in consonant with Bashir and Mustapha (2021), the study revealed that farmers- herdsmen conflict precipitates the acts of cattle rustling and banditry. It also revealed that conversely cattle rustling and banditry contributed to the farmers-herdsmen conflict in the local government area of Zamfara State. The study discovered that the synthesis of farmers-herdsmen conflicts, cattle rustling, and banditry pose serious threat to the safety and security of the people. This is consistent with the assertion by Solomon and Chinwe (2015) who were of the view that clashes between farmers and herders are a result of destruction of farmlands by the cattle which are mostly owned by the herdsmen. According to them, the herdsmen are mostly migrants who transit, and the movements have been characterized by cattle entering the farmers' land and sometimes causing serious damage which eventually lead to terrific conflicts between the herdsmen and the farmers.

##### 3.1.5. Deprivation

While reported by 28.5% of respondents, deprivation is still a significant factor contributing to banditry-related security risks. Addressing deprivation, especially in rural areas, should be a priority.

##### 3.1.6. Inequalities

Inequalities are identified by 45.5% of respondents. Reducing socio-economic inequalities may help in reducing security risks for herders. This study is in line with Oyinloye (2020) uncovered that preferential treatment, loss of traditional relationship, poor land management and policy, poor management of water resources, bush burning are the roots and immediate causes of banditry in Nigeria.

### 3.1.7. Marginalization

This is cited by 81.0% of respondents, indicating that a large majority believe that being marginalized plays a crucial role in their security risks. Policies aimed at reducing marginalization are essential.

### 3.1.8. Lack of Access to Basic Amenities

About 55.5% of respondents point to a lack of access to basic amenities as a cause of security risks. This highlights the need for infrastructure development in herding areas. The result correlate with Mungali *et. al.* (2020) who revealed that poor governance is partly responsible for the emergence of insurgency, armed banditry and kidnapping in the North West region of Nigeria.

### 3.1.9. Desertification

Desertification is mentioned by 36.5% of respondents, suggesting that environmental factors also contribute to security risks for herders. Sustainable land management and environmental conservation efforts may help mitigate this cause. The finding is in line with (Udemezue & Kanu, 2019). Who attributed these movements are mostly precipitated by the rate of deforestation and desertification.

### 3.1.10. Climate Change

While reported by 17.5% of respondents, climate change is still a relevant factor. Adaptation strategies and climate-resilient practices can be implemented to address this issue. This result is in line with finding by (Bashir 2017) climate change occasioned by droughts and reduced access to water sources (13.3%).

### 3.1.11. Population Explosion

With 80.5% of respondents mentioning it, population explosion is a significant concern. It implies that addressing the challenges associated with population growth in herding areas is crucial for security while high population is good for workforce, if not well manage its turn to be a problem. This result is consistent with Oyinloye (2020) who identified population increase, crop damage, ethno-religious factors, hate speech and bandits, lack of voice and political representation are the root cause of banditry in Nigeria.

### 3.1.12. Illegal Mining

About 41.0% of respondents point to illegal mining as a cause of security risks. Regulation and enforcement in the mining sector can help mitigate this issue. This findings is in tandem with (Okolie &Ugwu, 2014). Who identified illicit artisanal mining and proliferation of arms and light weapons in the region are veritable factors responsible for banditry and other security challenges in Katsina State.

### 3.1.13. Poor Governance

Poor governance is identified by 85.0% of respondents. It suggests that improving governance at various levels is imperative to reduce banditry-related security risks. This findings is line with the position of study by Mungadi *et al.* (2020) revealed that poor governance is partly responsible for the emergence of insurgency, armed banditry and kidnapping in the North West region of Nigeria and in consonant with Adamu and Mohammed (2021). Among the many respondents; banditry in Zamfara was a social problem that was generally tenable due to leadership failure. Some of the respondents have argued that the conflict was actually the deliberate activities of individual whom were against the progress and development of the State. These respondents (Anka, 2017 and Abdulrahman, 2020) explained that the leadership is weak and has failed to sit down and critically address the socio-economic inconsistencies in the State. They itemized poverty (which is about 74%) and the unemployment rate which has continued to rise from 2011 to 2019.

### 3.1.14. Weak Security System at All Levels

This is reported by 75.5% of respondents, indicating that strengthening security institutions is essential to address these risks. This is in agreement with (Achumba, Ighomereho, & Akpor-Rabaro, 2013) who posits that weak security system complements the alarming rate of banditry in the northwest region of Nigeria. This could have possibly been caused by the inadequate equipment for the security arm of government, both in weaponry and training. The findings is consistent with Mevayerore (2022) indicate that armed banditry, kidnapping and the rustling of livestock thrive in the areas because of the absence of government, especially security personnel and social infrastructure which disconnected the villages from urban areas.

### 3.1.15. Existence of Large Ungoverned Spaces

With 72.5% of respondents mentioning it, this cause underscores the importance of controlling and securing ungoverned areas. This result is in line with findings by Mevayerore (2022) who revealed that the villages visited could be described as ungoverned spaces, a part from Batsari town which is the headquarters of the local government area, whereas the remaining villages there was no presence of government either security personnel or social infrastructure which enabled the armed bandits and cattle rustlers to attack such village with ease, kidnap people, rustle livestock and ransack foodstuff without any assistance from the security operative. This correlates with Mungua (2015) finding, which found a relationship between ungoverned space and insecurity in developing countries.

### 3.1.16. Source of Finance for Terrorism

About 52.0% of respondents see this as a cause. It implies that efforts to cut off funding sources for terrorism can help reduce security risks. This finding is consistent with (Inwalomhe, 2021). A strong link has been established between the bandits terrorizing the North West and the Boko Haram insurgents operating in the North East. Kaduna State Governor, Nasir El-Rufai, stated this when he featured as a guest on *Channels Television's Sunday Politics*, saying his government would not negotiate with bandits. "It has been established that the kidnapping operations (by bandits) are substantially funding Boko Haram activities in the North East.

### 3.1.17. Corruption among Leaders

Corruption is cited by 93.5% of respondents, making it one of the most significant factors contributing to security risks. Anti-corruption measures are essential in addressing this issue.

### 3.1.18. Injustice

Injustice is identified by 91.5% of respondents, emphasizing the importance of a fair and just legal system. This result is in line with the findings by Adamu and Mohammed (2021) who found out that parts of the causes of banditry in Zamfara State was the condoning and prevalent of injustice to the Fulanis in the State. (Abdulrahman, 2020, Gummi, 2020, and Mohammed, *et al* 2019) have identified the perverted injustices meted to the Fulanis by the machineries of government in the State which include the injustice to Fulanis by the traditional rulers within their vicinities when the Fulani herds encroaches in to the farms of the villagers; injustice is meted to the Fulanis by the police when were arrested and brought to their office; injustice to Fulanis by the judges when taken to court for prosecution and adjudications.

### 3.1.19. Drug Abuse

With 82.5% of respondents mentioning it, drug abuse is a significant concern. Programs to address substance abuse should be implemented.

### 3.1.20. Informants

Informants are reported by 28.0% of respondents. Understanding the role of informants in security risks may help develop targeted interventions.

In conclusion, the results from Table 4.5 show that a combination of economic, social, environmental, and governance factors contribute to banditry-related security risks in the livelihoods of herders. Addressing these causes will require a comprehensive and multi-sectorial approach involving government, civil society and local communities to improve the security and well-being of herders.

**Table 4** Distribution of the causes of banditry security risk on herder's livelihood

Causes of banditry security risk on herder's livelihood	Frequency	Percent	Mode
Unemployment/deliberate tendency to climb wealth ladder	161	93.0	
Poverty	119	59.5	
Proliferation of small arms	141	70.5	
Unresolved conflict between farmers and herdsmen	200	100.0	Unresolved conflict between farmers and herdsmen

Deprivation	57	28.5	
Inequalities	91	45.5	
Marginalization	162	81.0	
Lack of access to basic amenities	111	55.5	
Desertification	73	36.5	
Climate change	35	17.5	
Population explosion	161	80.5	
Illegal mining	82	41.0	
Poor governance	170	85.0	
Weak security system at all levels	151	75.5	
Existence of large ungoverned spaces	145	72.5	
Source of finance for terrorism	104	52.0	
Corruption among leaders	187	93.5	
Injustice	183	91.5	
Drug abuse	165	82.5	
Informants	56	28.0	

Note: Multiple responses were recorded.

### 3.2. Effect of banditry security risk indicators on the herder's livelihood Assets

#### 3.2.1. Effects of banditry security risk on income of herder's household

The results on the relationship between various factors and the income of herders is presented in Table 6. The double log model had the best fit. This suggests that this functional form was most appropriate for the data, which may indicate a nonlinear relationship between the variables. The R-squared value of 0.404 means that approximately 40.4% of the variance in the dependent variable (herder income) can be explained by the explanatory variables in the model. This suggests that while the model is able to explain a significant portion of the variation in income of the herders, there are still unexplained factors or noise in the data. This research is in line with Mohammed et al (2021) on the effect of banditry on the income of yam marketers, the result of the multiple regression analysis showed  $R^2$  value of 0.51 which implies that 51% variation of effects of banditry on income of yam marketers in the study area was explained by the independent variables included in the model.

#### 3.2.2. Kidnapping of cattle herders and family members

The inverse relationship between the coefficient of kidnapping and herder income is an interesting finding. It suggests that an increase in kidnapping activities is associated with a decrease in herder income. This could be due to the fear and insecurity caused by kidnappings, which may discourage herders from actively engaging in productive activities of cattle rearing that will burst sales to generate income. Kidnapping can disrupt the livelihoods of herders, as they may lose their livestock, lives, equipment, or income during the abduction. The ransoms demanded by kidnappers can also impose a significant financial burden on the herder's family, his savings or the community. Kidnapping incidents can deter individuals from pursuing herding as a livelihood, leading to a potential labor shortage in the industry. This can affect the supply of livestock products such as meat, milk, and wool, which can have economic implications for the wider agricultural sector and food supply.

#### 3.2.3. Theft of Cattle

The negative and statistically significant coefficient for theft implies that an increase in cattle theft by bandits is associated with a decrease in herder income. Bandits during attacks on herders stills virtually anything of value. This finding is consistent with the idea that security concerns, such as theft, can negatively impact the livelihood of herders. This result is consistent with Mohamed et al (2021) the coefficient of high risk of theft on yam tubers (-34400.83) was negatively significant at 5% level of probability, suggesting that increased in theft would have negative effects on yam marketer's livelihood. Theft can lead to financial losses for herders, which may result in reduced income and the inability

to meet basic needs. Income disparities among herders can create social and economic inequalities within the community. Some herders may thrive while others struggle to make a living. Theft can threaten the livelihoods of herders by depriving them of valuable livestock, equipment, or resources necessary for their work. Income disparities can affect the overall well-being of herders. Those with higher incomes may enjoy better living conditions, healthcare, and education for their children, while those with lower incomes may face greater hardships.

#### 3.2.4. Imposition of Tax on cattle herders by Bandits

The inverse relationship between the coefficient of imposition of tax and herder income suggests that higher taxes imposition by bandits negatively affect herder income. This could be because heavy taxes imposed by the bandits reduce the profitability of herding, leading to a decline in income for herders. Taxation of herders' income can generate revenue for the bandits which on the other hand affect the wealth generation ability which hinders the herders from contributing their fair share to improve food security and alleviate poverty in their domain. It can also help reduce income, meaning higher-income herders pay a larger portion of their income as taxes to the bandits. This can be challenging in regions with insecurity cases, where herding may not be well-documented for government intervention and cash transactions are unaccounted. The imposition of Tax can also reduce the disposable income of herders which potentially affect the herders' standard of living. This can be particularly burdensome if herders have low incomes and face additional costs related to their livelihoods. The undue tax on herders' income can be volatile. This can make revenue projections challenging for sustainable livelihood.

#### 3.2.5. Displacement Cost of Banditry

Similarly, the inverse relationship between the coefficient of displacement cost of banditry and herder income indicates that higher costs associated with banditry displacement lead to lower herder income. This could be due to the economic burden imposed on herders by the need to relocate or protect their herds from banditry. Banditry and insecurity can force herders to abandon or relocate from their traditional grazing areas. This displacement can result in a loss of income, as herders may be unable to access pastures or water sources for their livestock. Additionally these abandon resource need to be made available for cattle at the new location at a cost imposing more financial burden. Herders who are constantly under threat from bandits may be less productive as they focus on safeguarding their livestock and themselves rather than efficiently managing their herds. Bandits may steal livestock, which represents a significant financial loss for herders. In some cases, entire herds may be raided, leading to catastrophic economic consequences. To protect themselves and their livestock from bandits, herders may need to invest in additional security measures, such as hiring guards or purchasing firearms. These increased operating costs can further reduce their income (Achoja, 2010; Achoja, et al.; 2013). The displacement of herders due to banditry can disrupt social structures and traditional ways of life. Families may be separated, and communities may become fragmented. Persistent banditry can lead to insecurity in affected regions, undermining the overall stability of the area. This can discourage investment and economic development. Banditry and displacement can create a cycle of poverty and instability. As herders lose income and face insecurity, they may become more susceptible to joining bandits or supporting criminal groups, perpetuating the problem. In conclusion, the displacement cost of banditry has far-reaching implications on the income and well-being of herders, affecting not only their economic prospects but also the social fabric and security of the affected regions. The above findings is in line with Sanchi, *et al* (2022) who posits that looking at the effects of banditry on cattle and sheep production in the study area, about 30% of the farmers noted reduced income as a major effect.

**Table 6** Effects of banditry security risk on income of herder's household

Variables	Linear	Semi log	Double log	Exponential
Constant	11.627 (160.314)	115282.396 (14.611)	11.386 (276.539)	11.627 (160.314)
Cattle rustling	0.002 (0.600)	-5966.390*** (-2.740)	-0.015 (-1.287)	0.002 (0.600)
Kidnapping	-1.034E-7 (-0.488)	-1376.058 (-0.822)	-0.017* (-1.910)	-1.034E-7 (-0.488)
Theft	-4.412E-8*** (-4.429)	-2339.505** (-2.601)	-0.015*** (-3.292)	-4.412E-8*** (-4.429)
Imposition of tax	-8.020E-7***	-2324.184	-0.020*	-8.020E-7***

	(-2.650)	(-1.163)	(-1.878)	(-2.650)
Displacement cost of banditry	4.039E-7 (0.910)	1274.111 (0.676)	0.017* (1.726)	4.039E-7 (0.910)
R <sup>2</sup>	0.329	0.373	0.404	0.329
Adjusted R <sup>2</sup>	0.307	0.351	0.384	0.307
F-ratio	5.756***	8.101***	9.965***	5.756***

Figures in parenthesis are the corresponding t-values; \*\*\*, \*\* and \* significant at 1%, 5% and 10% respectively

### 3.3. Effects of banditry security risk on savings of herders

The double-log model was chosen as the best-fit model for the analysis. The choice of the double-log model suggests that this functional form best represents the relationship between the variables. The R-squared value of 0.427 indicates that approximately 42.7% of the variance in the dependent variable (savings of the herder) can be explained by the independent variables (kidnapping, theft, and imposition of tax). In other words, these three factors collectively account for 42.7% of the variation in herders' savings, leaving the remaining 57.3% unexplained.

#### 3.3.1. Kidnapping

The negative coefficient of kidnapping suggests that there is an inverse relationship between kidnapping activities and the savings of the herder. The fact that this coefficient is statistically significant at the 1% level implies a high degree of confidence in this relationship. In other words, as kidnapping activities increase, herders are less likely to save money because they fear for their safety, which may impact their ability to generate income from cattle sales. Kidnappers often demand ransom payments in exchange for the safe release of their victims. Herders who are kidnapped or have family members kidnapped may be forced to pay substantial sums of money to secure their loved ones' release. These payments can deplete their savings or even push them into debt. The kidnapping of herders can disrupt their daily activities and livelihoods. Herders rely on their livestock for income, and when they are kidnapped or live in fear of kidnapping, they may be unable to tend to their animals. This can result in financial losses due to decreased livestock productivity, loss of sales, and increased expenses for recovery. The psychological trauma of being kidnapped or living in fear of kidnapping can also affect herders' ability to work effectively and make sound financial decisions. The stress and anxiety can lead to reduced productivity, poor decision-making, and a focus on immediate safety rather than long-term financial planning. Constantly living under the threat of kidnapping can lead herders to hoard their savings or keep them in non-productive assets like cash, which can erode in value over time due to inflation. This makes it challenging for them to grow their savings or invest in income-generating assets. This findings agrees to the study by (Egwu, 2016).who revealed that cattle rustling and rural banditry were often accompanied by kidnapping, rape, organised attacks on rural communities and looting of available properties. This has affected the wellbeing of the rural communities.

#### 3.3.2. Theft

Similar to kidnapping, the negative coefficient of theft indicates that there is an inverse relationship between theft and the savings of the herder. The statistical significance at the 1% level strengthens the argument that as theft incidents increase, herders tend to save less. The relationship between theft and savings among herders is a complex and multifaceted issue that can be influenced by various factors. Herders are individuals or communities primarily engaged in livestock farming, and their economic circumstances can make them particularly susceptible to theft. Herders often have limited income sources, and their livelihoods are highly dependent on their livestock. Theft of even a few animals can significantly impact their economic stability, making them more vulnerable to financial setbacks. This vulnerability may lead them to allocate more resources to safeguard their assets rather than saving. In many rural and remote areas where herders operate, access to formal financial services such as banks and insurance is limited. As a result, herders may resort to traditional methods of saving, like keeping cash or valuables hidden, which can make them easier targets for theft. Competition for grazing lands and water sources can be fierce among herders. Resource scarcity can lead to conflicts and disputes, increasing the likelihood of theft as a means of gaining an advantage or settling scores with rival herders. Many herders may lack the necessary resources to invest in secure infrastructure, like fencing, guard animals, or surveillance systems, to protect their livestock. This deficiency in security measures can make it easier for thieves to steal animals without being detected. In some herding communities, there may be social norms and cultural practices that condone or tolerate theft or feuds related to livestock ownership. These norms can perpetuate a cycle of theft and retaliation, making it difficult for herders to save and invest in other ways.

### 3.3.3. Imposition of tax

The negative coefficient of imposition of tax suggests that heavy taxation negatively affects the savings of herders. Given its statistical significance at the 1% level, it implies a strong relationship. Taxation can have various effects on herders and their economic activities, potentially discouraging them from saving and affecting their livelihoods. Herders often have irregular income patterns due to the seasonal nature of their work. Taxing their income may reduce their ability to save because they have to allocate a significant portion of their earnings to taxes, leaving them with less disposable income. This can discourage herders from saving as they struggle to meet their immediate needs and may not have enough left over to put into savings or investment.

**Table 7** Effects of banditry security risk on savings of herders

Variables	Linear	Semi log	Double log	Exponential
Constant	32094.750 (9.858)	30487.855 (15.393)	7.221 (21.093)	10.578 (21.257)
Cattle rustling	147.918 (-1.317)	211.595 (0.387)	-0.103 (-1.085)	-0.024 (-1.387)
Kidnapping	-0.025*** (2.641)	387.616 (0.923)	-0.188** (-2.582)	1.078E-7 (0.074)
Theft	-0.001 (-1.383)	19.331 (0.086)	-0.092** (-2.349)	7.445E-8 (1.089)
Imposition of tax	-0.038*** (-2.812)	-887.498* (-1.769)	-0.289*** (-3.333)	-1.888E-5*** (-9.090)
Displacement cost of banditry	-0.036* (-1.821)	521.669 (1.102)	0.093 (1.139)	-6.502E-6** (-2.135)
R <sup>2</sup>	0.268	0.022	0.427	0.573
Adjusted R <sup>2</sup>	0.244	-0.004	0.412	0.562
F-ratio	2.813**	0.855	28.864***	52.013***

Figures in parenthesis are the corresponding t-values; \*\*\*, \*\* and \* significant at 1%, 5% and 10% respectively

Many herders rely on owning and grazing livestock on communal or privately owned land. Tax imposition on property or land of herders before they operate freely, can put additional financial burdens on them. In some cases, herders might be forced to sell their land or livestock to pay the tax forced on them by the bandits, further reducing their ability to save. Higher impose tax cost can reduce their profitability, making it harder for them to save and invest in improving their herding practices. Many herders operate in the informal economy, making it difficult for them to easily pay the forced tax to allow them to operate in the environment. Hence they often do not benefit from their farm enterprises. Taxing herders in the informal economy can push them further into the underground economy, hindering their access to formal financial services and saving opportunities because of their limited wealth status.

### 3.4. Effects of banditry security risk on herd size

The study utilizes an exponential model to analyze the data and determine the best-fitting model. The research findings reveal that the model has an R-squared value of 0.613, indicating that 61.3% of the explanatory variables can explain the dependent variable, which is the banditry security risk of the herders. This study focuses on four key explanatory variables: cattle rustling, theft, imposition of tax, and displacement cost of banditry. The analysis demonstrates that these factors are statistically significant and have unique relationships with banditry security risk. Specifically, an inverse relationship is observed for cattle rustling, theft, imposition of tax, and displacement cost of banditry at the 1% level, suggesting important insights into the dynamics of banditry security risk among herders. The above results in line with some other studies who also found that conflicts significantly reduced livestock herd size across livestock species (Anne & Kinsumba, 2019; Okafor & Chikalipah, 2021; Rockmore, 2011; Verpoorten, 2009).

### 3.4.1. Cattle Rustling

The coefficient of cattle rustling demonstrates an inverse relationship with banditry security risk at the 1% significance level. This implies that an increase in cattle rustling activities is associated with a decrease in the herd size thereby affecting the livelihoods of herders in Katsina State. This findings is in consonant with Abubakar, Mohammed and Bashir (2003) that Cattle rustling has drastically affected these economic systems in various degrees. For instance, Olaniyan and Yahaya, (2016) found that the activities of cattle rustling have established a major danger to the economy and the living standard of the pastoralists and those who rely on livestock for survival in rural communities. Bashir (2017) also posits in his findings that commercialization of cattle rustling account for (10.6%) effect on herd size.

### 3.4.2. Theft

The coefficient of theft is statistically significant and negative. This suggests that decrease in theft is correlated with a corresponding increase in herd size and improvement in herder's livelihood. Herders may take measures to protect their properties and cattle, which can lead to reduced banditry security risk in areas with high theft rates and maintain their business base.

### 3.4.3. Imposition of Tax

The coefficient of imposition of tax is inversely related to banditry security risk at the 1% level. This implies that an increase in the imposition of heavy taxes leads to a decrease in the herd size in form of cattle that will be sold regularly to pay the tax, potentially reducing their attractiveness of herding as a source of save livelihood.

### 3.4.4. Displacement Cost of Banditry

The coefficient of displacement cost of banditry is inversely related to banditry security risk at the 1% level. This suggests that any increase in the cost incurred due to displacement or migration by banditry activities, such losses will results in a similar reduction in herd size. This could indicate that herders are relocating or changing their practices to mitigate the effects of banditry at a cost. This result is in tandem with (Goldman, 2000) who suggests that increased fatalities from terrorism in the study locations made households to abandon land that could have supported livestock production.

**Table 8** Effects of banditry security risk on herd size

Variables	Linear	Semi log	Double log	Exponential
Constant	12.678 (12.543)	16.370 (21.069)	2.585 (74.422)	2.380 (42.262)
Cattle rustling	0.028 (0.817)	0.008 (0.038)	0.009 (0.964)	-0.006*** (-3.109)
Kidnapping	-1.114E-6 (-0.377)	-0.023 (-0.140)	-0.003 (-0.344)	3.369E-8 (0.205)
Theft	-2.927E-7** (-2.108)	-0.147* (-1.664)	-0.010** (-2.471)	-2.854E-8*** (-3.690)
Imposition of tax	-9.580E-6** (-2.271)	0.446** (2.267)	0.022** (2.449)	-6.841E-7*** (-2.910)
Displacement cost of banditry	-6.861E-5*** (-11.090)	0.248 (1.337)	0.015* (1.847)	-1.639E-6*** (-4.753)
R <sup>2</sup>	0.566	0.273	0.367	0.613
Adjusted R <sup>2</sup>	0.555	0.254	0.351	0.598
F-ratio	50.620***	14.567***	22.489***	27.286***

Figures in parenthesis () are t-values; \*\*\*, \*\* and \* significant at 1%, 5% and 10% respectively



#### 4. Conclusion

The research investigated the effect of banditry security risk on the livelihood of livestock herders in Katsina State. Its employed livelihood financial capital indicators such as income, savings and herd size as independent variables against banditry indicators as dependent variables which include cattle rustling, kidnapping, thief, in position of tax and displacement cost. Katsina State was chosen as the study area because of prevalence of banditry activities in the selected eight Local Government Areas in the State. Descriptive statistics, probability, four type likert scale and multiple regression were used to analyze the data collected. The study concluded that, banditry security risk negatively affected the livelihood of livestock herders in the study area, livelihood financial capital indicators (income, savings and herd size) were seriously affected by banditry security risk parameters. Implicating that anything that affect herd size will definitely affect the income of the herders as well as their capacity to save. This activities of bandits if not urgently checked and nip in the bud will threaten the livelihood of herders demoralizing them to stay out of business with a consequence of extinction of cattle rearing in Katsina State which contribute largely the economy of the State and agricultural economic sector. Specifically, the study pointed out that granting of Amnesty, disarmament, reintegration program and provision of employment to repentant bandits as a way forward. The findings and recommendations from this study will add to the body of knowledge that policy makers has at their disposal to find solutions for banditry security risk that have bedevils Katsina State.

Base on the study findings, the researcher make the following policy recommendations:

- Government should provide employment to repentant bandits and the teaming youths in our society.
- The Nigerian porous borders should be properly manned.
- Maximum use of technology should be employed by security agencies in combating banditry, terrorism and other violent crimes in the country.
- Community policing should be strengthen.
- There should be frantic effort by government to resolve long age farmers/ herders clash.
- Government should grant amnesty to genuinely repentant bandits in Katsina State.
- Organize disarmament and reintegration program for the repentant bandits to the society.

#### Compliance with ethical standards

##### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

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