PREVENTING VIOLENCE CRIMES (KIDNAPPING, ARMED ROBBERY, BRIGANDAGE OR COMMUNITY MASSACRE) WITH DRONES: AN EFFECTIVE ALTERNATIVE TO VEHICULAR PATROLS IN NIGERIA

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ABSTRACT
Security is a vital component of any Nation's growth and development, with its absence, there is no progress. Insecurity in Nigeria now has posed significant challenges to the nation's security forces. The study examined prevention of violent crimes with drones as an effective alternative to vehicular patrols in Nigeria. The specific objectives were to determine the impact of drones in the prevention of kidnapping, armed robbery, and communal killings in Nigeria. Three research questions and hypotheses guided the study. The study population was made of 114 officers drawn from Nigeria Police College while a sample size of 89 officers was selected for the study. Descriptive statistics was used to answer the research questions while R^2 value Regression analysis was applied to test the hypotheses of the study at a 0.05 level of significance. The result of the study showed that drones have a significant impact on the prevention of kidnappings, armed robbery, communal killings, and other crimes in Nigeria. Recommendations proffered include the need for strategic deployment of drones in all security formations in the country, adequate budgetary provision training of manpower, comprehensive monitoring, and adequate assessment and action on information and intelligence received from drones. This study has identified use of technological devices like drones would help security agencies in the country to be more proactive on issues of insecurity. The study advocates the usage of drones by all security agencies for effective mapping systems in fighting insurgency and other forms of insecurity in Nigeria. Therefore, this study tends to create illumination of the need to safeguard our society with modern technological devices like drones against criminals, because drone usage has been identified as the most effective intelligence gathering and security monitoring.

Introduction

According to (Abiodun, 2020), Security is a major human desire; it is significant to the extent that the absence of it renders people ineffective in all senses. Abraham Maslow's work on human needs also ranked security as second (next to physiological needs) in the hierarchy of human needs. Insecurity is the state of being prone or vulnerable to danger or threat of danger, it is the opposite of security.

The present insecurity situation in Nigeria now has portrayed the country as an unsafe nation for its citizens and non-citizens among the comity of nations. The rising spate of insecurity in Nigeria has now assumed a formidable dimension. This has posed significant challenges to the nation's security forces. Nigeria has experienced widespread insecurity for more than two decades, and this has attracted global attention because it has led to the deaths of many innocent people such as foreign nationals, some members of the country's security forces, and numerous other citizens. Insecurity in Nigeria now calls for extraordinary measures to combat the menace. This critical issue has affected food production and caused hunger in the land as a result of kidnapping, incessant farmers/herders clashes in agri-food farming areas in the country, which has led to the rising cost of food, the rising cost of living, and escalating unemployment that continue to affect our country. The country is going through a very difficult unsafe time, most especially on highways nationwide. Insecurity is a familiar and growing term in Nigeria nowadays, traveling from one place to another within the country is a very risky venture that portends the loss of life and freedom, if millions of naira were not paid as ransom after being kidnapped on the highways to regain freedom. Violent crimes like kidnapping have moved mainly from the city areas or suburbs to highways. The country's security agencies need new approaches to fighting insecurity through the use of modern technological devices like drones.

As a result, vehicle patrols are no longer an effective method of monitoring and deterring these crimes. When a criminal uses or threatens to use harmful force against a victim, it is considered a violent crime. Crime prevention is the various measures and strategies that lead to reduce the risk of crime and its distinct outcome on individuals and the environment, including the fear of crime and by monitoring various causes of crime (Shaw, 2010). (Brantingham and Brantingham,1991) have specified four measures of crime commission that is the law of the land, the guilty party, the injured party, and the scene of a crime.

The use of technological gadgets, such as drones instead of vehicular patrol, has therefore become essential to improve more effective monitoring and surveillance operations for the prevention and control of crimes, given the circumstances facing the country's security forces. Drones are indispensable tools for law enforcement and border control surveillance teams to obtain information. Drones could have prevented events such as the attack at Kaduna International Airport and the bombing of the Abuja-Kaduna bound train in Nigeria on March 25, 2022, and April 4, 2022, which resulted in the deaths of approximately 60 people and the kidnapping of approximately 146 by the bandits. The worst situation is that kidnappers often use their abductor's phones to make and receive calls during the negotiation and also receive a ransom in cash without being arrested.

In recent times, drones have been the most efficient tool for gathering intelligence, conducting aerial surveillance, and monitoring security. Drones are crucial devices in enhancing security surveillance and safety across various scenarios. It can conduct regular patrols to ensure ongoing surveillance of a location and it accepts command faster and carries out tasks faster at a reduced cost than the usage of vehicular patrol on our highways. In Nigeria, using drones as a substitute for vehicular patrols can improve the prevention of violent crimes. Researchers, scholars, and security experts have not relented in making various recommendations and viable solutions for addressing insecurity in Nigeria. Therefore, it is in the face of the security challenges that the study focuses and seeks to examine the impact of drones in tackling insecurity in Nigeria by preventing violent crimes; kidnapping, armed robbery, brigandage, or community massacre as an effective alternative to vehicular patrols in Nigeria.

1.1 Statement of Problem

No doubt, the issue of insecurity is a serious problem in Nigeria now. The country was ranked sixth in the world for organized crime, according to the 2023 Global Organized Crime Index. This indicated that Nigeria continues to face a series of security challenges, the country has been battling with various forms of violent crimes nationwide. The increasing challenge of violent crimes has continued to exact grave consequences in our society and the nation at large leading to loss of lives and properties. Insecurity has affected food production and caused hunger in the land because it is affecting farming and food production. It has

caused a rising cost of living, and escalating unemployment that continue to affect our nation. Itis now crippling Nigeria's education system and drastically eating up the educational sector which may eventually lead to educational decay. The pervasive insecurity across various regions of Nigeria has become an ever-growing concern for citizens and the government. The incessant attacks by insurgent groups, kidnappers, bandits, and other criminal elements have resulted in the loss of lives, displacement of communities, and a palpable atmosphere of fear and uncertainty. There are numerous lists of violent highway attacks involving kidnappings or abductions for ransom, violent attacks involving mass/indiscriminate killings without abductions, and lists of attacks involving both mass/indiscriminate killings and abductions. The frequency of violent crimes, including banditry, ritual killings, kidnappings, and armed robbery, has been rising. Insecurity may be on the increase if proactive measures are not taken, because more people have resorted to kidnapping, banditry, and broad-day robbery. The menace is on the increase, hence there is an urgent need to curb and reduce the high wave of insecurity in Nigeria, particularly violent crimes. Crime prevention and control in Nigeria nowadays need technological approaches. Nigeria is experiencing the prevalence of rising crime waves, criminal intentions, and varying degrees of delinquency. Nigeria and Nigerians have been on the global crime map over the years to the present time and there has been no adequate and genuine intention by any government of the society to change the situation. Going by the increase in crime rate, many have lost hope in the police and other security agencies in the country. There are changes and development in crime commission patterns in Nigeria now, crime commission is increasing in geometric progression while crime prevention is moving in arithmetic progression, hence there is a need to be fast growing in areas of strategical crime control, most especially to change from using vehicular patrol to the usage of drones on our roads due to criminogenic nature of our highways in Nigeria. Daily attacks on innocent citizens mostly on our roads by suspected criminals have now become a huge task to handle with vehicular patrol by the Nigerian security agencies,and this is a pointer to the need to adopt the use of drones for security surveillance and intelligence gathering. This study tends to create illumination of the need to safeguard our society with modern technological devices like drones against criminal elements that are involved in violent crimesdailyby identifying the impact of drones in preventing violent crimes like kidnapping, armed robbery, and others. The study is expected to contribute to the existing literature in the field of criminology and security studies in particular and all other social sciences disciplines.

1.2 Objectives of Study

The main objective of the study is to examine preventing violent crimes with drones as an effective alternative to vehicular patrols in Nigeria

The specific objectives include;

i. To examine the impact of drones in the prevention of kidnappings in Nigeria

ii. To examine the impact of drones in the prevention of armed robbery in Nigeria

iii. To examine the impact of drones in the prevention of community massacre in Nigeria

1.3 Research Questions

The research questions that guided the study are;

i. To what extent does the use of drones significantly impact the prevention of kidnappings in Nigeria?

ii. To what extent does the use of drones significantly impact on the prevention of armed robbery in Nigeria?

iii. To what extent does the use of drones significantly impact the prevention of community massacres in Nigeria?

1.4 Research Hypotheses

The following hypotheses were formulated to guide the study

HO1. There is no significant impact of drones in the prevention of kidnappings in Nigeria

HO2. There is no significant impact of drones in the prevention of armed robbery in Nigeria

HO3. There is no significant impact of drones in the prevention of community massacre in Nigeria.

2.0 Concept of Drones

An unmanned aerial vehicle (UAV) is a drone. The aircraft is devoid of any human pilot, crew, or passengers. Throughout the 20th century, UAVs were initially developed for military missions that were deemed too "dull, dirty, or dangerous." (Tice, 1999) An unmanned aerial vehicle, or UAV, is a "powered, aerial vehicle that does not carry a human operator, uses aerodynamic forces to provide vehicle lift, can fly autonomously or be piloted remotely, can be expendable or recoverable, and can carry a lethal or nonlethal payload". A drone is an unmanned aerial vehicle that can be controlled by a person from a distance or can operate on its own in a predetermined mode. Drones are essentially flying robots that are typically operated from a specialized remote unit that can control everything in the air thanks to clever software. Although drones have a long and well-established history that extends back centuries, there is currently a paradigm shift in the use of drones in crime prevention. Drones can be used for surveillance, crime detection, and aiding law enforcement in locating criminal hotspots and hideouts. The drone is equipped with numerous functional sensors, such as GPS, which help it maintain the appropriate flight mode (Phillips, 2022). Drones have their origins traced back to specific methods created to give the military pertinent information. In the 1930s, the first aircraft with a reusable radio control mechanism was created, and it functioned similarly to a base model.

Subsequently, traditional sensors and camera units were developed for military drones and installed inside missiles. Furthermore, according to (Engberts and Gillissen, 2016), there are a plethora of drone variations readily available due to technological advancements. While some are employed for military purposes, others are discovering possible roles in numerous large corporations.

2.1 Use of Drones for Vehicular Patrols in Nigeria

According to (Phillips, 2022), drone technology makes it possible for law enforcement and criminal justice to carry out surveillance, track criminal suspects, identify criminal activity at crime hotspots, help police investigators apprehend criminals at a crime scene, and gather evidence to solve crimes. Drone technology helps law enforcement and criminal justice agencies operate more efficiently. It offers complete transparency throughout the asset, equipment, incident, exhibit, and evidence life-cycle, as well as general incident management. It also helps law enforcement manage investigations and forensic processes more effectively by protecting, tracking, and maintaining the integrity of all digital and physical property and evidence with thorough audit trails, from capture or seizure to disposal. Finally, it enables criminal justice officials and legally authorized organizations to gather exhibits on the scene and construct a complete audit trail of all movements and transfer of custody of exhibits (WonderShare Technology, 2021).

2.2 Theoretical frameworks

The nature of social reality is so complex that, every social phenomenon is subjected to various analyses and interpretations depending on which of the theoretical realm one falls. There are as many theories as there are phenomena. However, two theoretical perspectives in sociology were examined to explain the impact of drones in the prevention of violent crimes in Nigeria as the phenomenon under study.

(i) Anomie Theory

In 1897, Emile Durkheim, a French classical sociologist, first used the concept of anomie in his book (Suicide) to describe the prevalence of suicide in Europe due to the breakdown of the collective values which led to a feeling of despair and hopelessness in the people. However, in 1954, Robert K. Merton, an American Sociologist, developed the concept into a model that analyses the five personality types that respond to anomic conditions in society which include; the Conformist, the Innovators, the Ritualists, the Retreatist, and the Revolutionary. Merton developed the structural strain theory by building on Durkheim's notion that anomie is a social situation in which people's norms and values no longer match those of society. According to Robert Merton's Strain theory, conformists play by social rules and invariably seek politically correct means of achieving cultural goals. The innovators identify the blind spots in the social system and develop unconventional means of achieving the cultural goals. The Ritualists abandon all hopes of achieving the cultural goals due to a repeated experience of failure but still adopt the institutionalized means. The Retreatists become completely disinterested in both the cultural goals and the institutionalized means; they often come off as sociopaths withdrawn to drugs, alcohol, and suicidal thoughts. The Revolutionary seek to disrupt the existing system and replace it with a perceived better system.

The theory submits that society usually puts pressure on individuals to attain socially accepted goals, though they lack the means. This, therefore, results in strain which may push individuals to commit crimes, like kidnapping, armed robbery, banditry, or joining terrorist groups among other violent crimes. According to this theory people engage in criminal behavior as a result of their inability to achieve their goals through legitimate means. People may turn to crimes when they see that there are opportunities to succeed in committing crimes are limited, or when they experience strain or frustration in their lives. The theory suggests that crime is a result of the strain that individuals experience when they are unable to achieve their goals through legitimate means. The theory focuses on the disconnect between societal goals and the means available to achieve them. When individuals cannot achieve these goals through legitimate means, they engage in criminal acts. The patterns of rule-breaking depend on whether or not people accept society's goals and whether or not they have the opportunity to reach them.

The theory is being criticized for emphasizing materialism as a motivation for deviance or crime. The theory also sees crime and deviance coming from the aggrieved activities of the poor rather than the rich, both rich and poor commit crimes. (Mukhtar, 2015) as cited by (John Wajim, 2020) also criticizes the theory based on labeling a ritualist who is someone who lives by organizational rules as a deviant. Finally, the theory does not clarify why some individuals adapt to innovation and not retreatism or adapt to rebellion rather than ritualism.

(i) Relative Deprivation Theory

The study further employs relative deprivation theory to explain the phenomenon. Relative deprivation was first used by Robert K. Merton in his study in 1950 on The American Soldier on the response of groups to promotion (Cherkaoui, 2015). Relative deprivation suggests that crime happens when individuals or groups see themselves as being unfairly disadvantaged compared to other individuals or groups whom they see as being similar (or inferior) to themselves (The Scottish Centre for Crime and Justice Research, 2016).

The theory of relative deprivation, therefore connotes that the feelings by individuals of several feelings of relative deprivation due to economic comparisons can be an important motivator to criminality (Ontario Ministry of Children Community and Social Services, 2016). Such individuals would have compared themselves with others based on some valued dimension (such as income) and found they were worse off than the other. The recognition of their deprivation (the cognitive component of relative deprivation) can be a powerful motivator for accompanying feelings such as anger (the affective component of relative deprivation) to reduce one's deprivation (Ontario Ministry of Children Community and Social Services, 2016). The affective components of deprivation may include an attempt to gain legally or illegally depending on how the deprivation is perceived. Another thrust of relative deprivation theory is that individuals may compare themselves to others (egoistic relative deprivation) or their group to other reference groups fraternal or collective relative deprivation). In that vein, egoistic relative deprivation may motivate individual action, while fraternal deprivation may motivate collective action (Ontario Ministry of Children Community and Social Services, 2016). (Ajaegbu, 2012) attributed the rise in crimes such as robbery, kidnapping thuggery, and terrorism to a "gap" in society. Summarily, relative deprivation is a feeling that you are generally "worse off" than the people you associate with and compare yourself to (Longely, 2018). Relative deprivation theory has been criticized for failure to explain why some people, though deprived of rights and resources, fail to take part in social movements meant to attain those things (Longely, 2018). It is a clear fact that not all unemployed youths are involved in crime. However, the theory is relevant to explain unemployment as a major underline cause of crime in Nigeria, because there is a mutual correlation between crime and unemployment. The inability of most people to be gainfully employed is a major motivating factor for various crime activities perpetrated by them.

2.3 Review of Related Literature

Many studies have been conducted on the relationship between unemployment, crime, and security. There is a consensus among scholars that joblessness is connected to criminality. Ehrlich cited in (Jelilov and Ndanitsa, 2015) noted that joblessness is connected with offence because the time spent for genuine work decreases the chance of illegal work. A decrease in unemployment, according to Fadaei-Tehrani and Green in (Jelilov and Ndanitsa, 2015) leads to a decrease in crime and vice versa. UN-Habitat discovered that socio-economic inequality and lack of opportunities for social advancement and employment are some of the root causes of crime and violence (Ajaegbu, 2012).

According to (Engberts and Gillissen, 2016) stated that drones are not a continuation of human

senses but it aid humans with important informations without their actual presence on the scene. (Abiodun, 2020) in his own view stated that the insecurity and insurgency could be adequately and effectively fought using drones most especially at the border areas, with updated mapping system and the use of drones as surveillance. Another major contribution or merit of drones is that, they become more useful for aerial surveillance, they can move at higher speeds than ground vehicles as they are not restricted to traveling on the road network. They can potentially fly in conditions that are too dangerous for a manned aircraft, such as evacuation conditions, or very bad weather conditions. Unmanned Aerial Vehicles (UAVs) are usually programmed off-line and controlled in real time to navigate and to gather transportation surveillance and intelligence data (United States Air Force, 2016). UAVs can view a whole set of networks of roads at a time and inform the base station of emergency or accidental sites. It also permits timely view of disaster area to access severity of damage. Most of the drones are able to be flown for up to 45 minutes on a single battery charge and can travel up to 2 miles from the person controlling it, reaching effective surveillance altitudes of approximately 1,000 feet respectively.

Moreover, drones are designed to undertake constant, persistent surveillance to a degree that former methods of video surveillance were unable to achieve. By virtue of their design, their size, and how high they can fly, drones can operate undetected in urban and rural environments. Surveillance UAVs can be programmed to launch at regular intervals throughout the day, survey specific areas or features on the map, record video and transmit it all back in real-time, or record it to a DVR for logging and review later (Collinson, 2011), as cited in (Abiodun, 2020). They can also be programmed to deploy when event-driven triggers, such as seismic sensors, motion detectors and invisible infrared geo-fences are activated by an unidentified presence. Drones produce minimal noise, and can be equipped with night vision cameras and thermal sensors, allowing them to provide imagery that the human eye is unable to detect. Surveillance drones are equipped with sophisticated imaging technology that provides the ability to obtain detailed photographs of terrain, people, homes, and even small objects (Elmendorf, 2010). Giga-pixel cameras used to outfit drones are among the highest definition cameras available, and can provide real-time video streams at a rate of 10 frames per second. They usually carry infrared cameras, heat sensors, GPS, sensors that detect movement, and automated license plate readers.

This is one of the reasons (Abiodun, 2020) in his study reveals that drones or UAVs are very effective for aerial surveillance, mapping system, intelligence gathering, and manning security - and it is to be adopted by the security agencies in Nigeria. He further recommended that various states governments should be licensed to use drones for monitoring forests and other hideouts of criminals in their domains; at the same time, more security officers or vigilantes should be recruited among indigenes and residents of the various communities in each region in the country. According to (Ezenwa Olumba, 2022) in his article title "States must invest in drone research and development to tackle insecurity in the Sahel" The global race to acquire drone technology has intensified among state and non-state actors seeking to assert control over territories. In the Sahel, the use of drones by militarized terrorist groups requires a government response. Ezenwa argues that African states should invest in the research and development of drones to counter the threat defensively, rather than rely on external suppliers.

However, despite the various efforts being made by the past researchers in the field, research on impact of drones in preventing and detecting crimes in Nigeria has not received adequate attention, most especially on prevention of crimes with drones on highways. Little has been done by researchers, and available research literatures on drones are inadequate and dominated by foreign authors and researchers. Although drones' usage has been identified as most effective alternative to vehicular patrols for aerial surveillance, mapping system, intelligence gathering, and manning security, if is to be adopted by the security agencies in Nigeria. But the menace of insecurity has not been well analyzed as failure of government or dysfunctional of the societal systems. In support of (Abodun, 2020) in his opinion concluded that if the drones or UAVs are deployed for aerial surveillance securitization, the increasing level of insecurity in Nigeria would definitely become a thing of the past.

3.0 Methodology

This study used a survey research design method. The population consisted of 114 police officers on a regular course from Nigeria Police College, and stratified simple random sampling technique was employed to stratify the respondents into different categories such senior and junior officers, however, 89 were valid for analysis. A structured questionnaire was used to collect data for the study which consists of a series of structured questions, each of which is intended to elicit a particular piece of data, which include biographical information of the respondents and

multiple-choice questions about preventing violent crimes. Respondents rated their answers on a four-point scale by selecting one of the options from the lists; 1. ***Agree (A),*** 2. ***Strongly Agree (SA),*** 3. ***Disagree (D),*** 4. ***Strongly Disagree (SD).*** Researchers in the form of lecturers validated the instruments to ensure that the questions on the questionnaire were clear and valid.

3.1 Population of the Study

The study population was made of 114 students on a regular course drawn from Nigeria police college as shown in Table 1

Table 1: Population Distribution

S/N	Nigerian police college	No of Students
1	Senior officers	60
2	Junior officers	54
	Total	114

Source: Field Survey, 2024.

3.2 Sampling and Sampling techniques

A total of 89 students were selected as sample size for the study. The sample size was selected using the stratified simple random sampling technique

Table 2: Sample Distribution

S/N	Nigerian Police College	No of Students
1	Senior officers	40
2	Junior officers	49
	Total	89

Source: Field Survey, 2024.

3.3 Reliability of the Instrument

A test-retest reliability method was used to guarantee the instrument's dependability. Fifteen students who were not included in the initial study group were chosen to take the test. The same test was given to the same students again after a two-week period. By computing their variances, the scores acquired for the two administrations were statistically processed. The instrument's reliability was ascertained by calculating the ratio of the two variances. The internal consistency of the survey was assessed using a reliability coefficient ratio of 0.88.

4.0 Analysis, Result, Discussion

Descriptive statistics was used to answer the research questions while R^2 value Regression analysis was applied to test the hypotheses of the study at a 0.05 level of significance**.** These sections provided answers to the research questions and tested the hypotheses as follows;

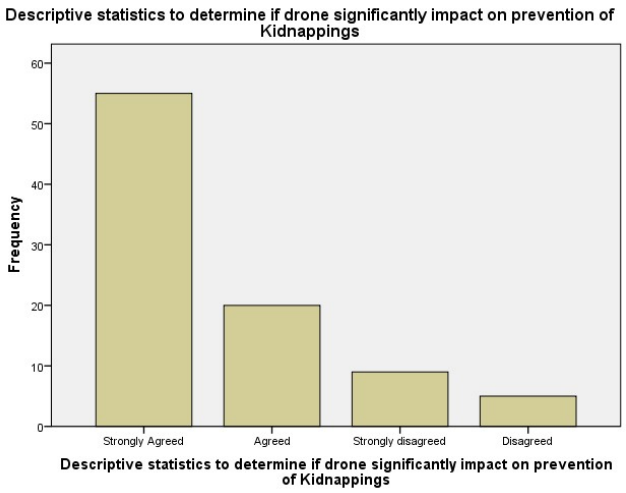
4.1 Research Question One

1. To what extent does the use of drones significantly impact the prevention of kidnappings in Nigeria Table 4.1

Descriptive statistics to determine if drones significantly impact on prevention of Kidnappings

Staff of Nigerian police college	Frequency	Percent	Valid Percent	Cumulative	Mean	Std.Deviation
				% Percent	1.5955	.88830
Strongly Agreed	55	61.8	61.8	61.8		
Agreed	20	22.5	22.5	84.3		
Strongly disagreed	9	10.1	10.1	94.4		
Disagreed	5	5.6	5.6	100.0		

Total	89	100.0	100.0			



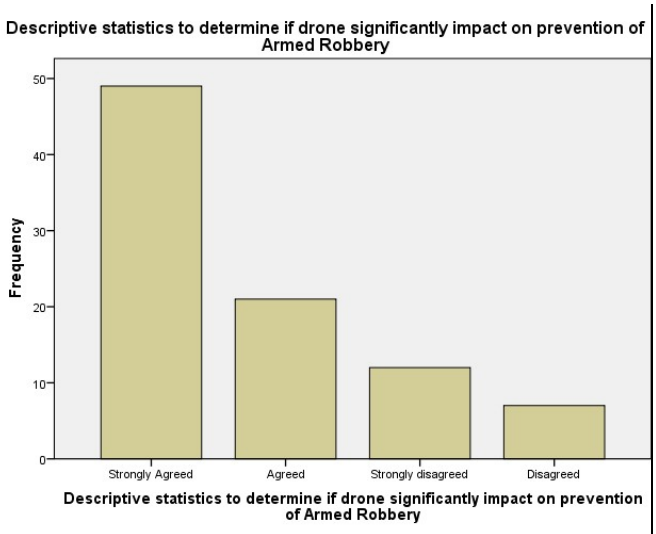
Result; The descriptive statistics showed that 55 respondents representing 61.8% of total respondents strongly agreed that drones significantly impact the prevention of kidnappings in Nigeria

4.2 Research Questions Two

To what extent does the use of drones significantly impact the prevention of armed robbery in Nigeria? Table 4.2

Descriptive statistics to determine if drones significantly impact on prevention of Armed Robbery

Staff of Nigerian police college	Frequency	Percent	Valid Percent	Cumulative Percent	Mean	Std.Deviation
Strongly Agreed	49	55.1	55.1	55.1	1.7416	.97150
Agreed	21	23.6	23.6	78.7		
Strongly disagreed	12	13.5	13.5	92.1		
Disagreed	7	7.9	7.9	100.0		
Total	89	100.0	100.0			



Result; The descriptive statistics showed that 49 respondentsrepresenting 55.1 % of total respondents strongly agreed that drones significantly impact the prevention of ArmedRobbery in Nigeria.

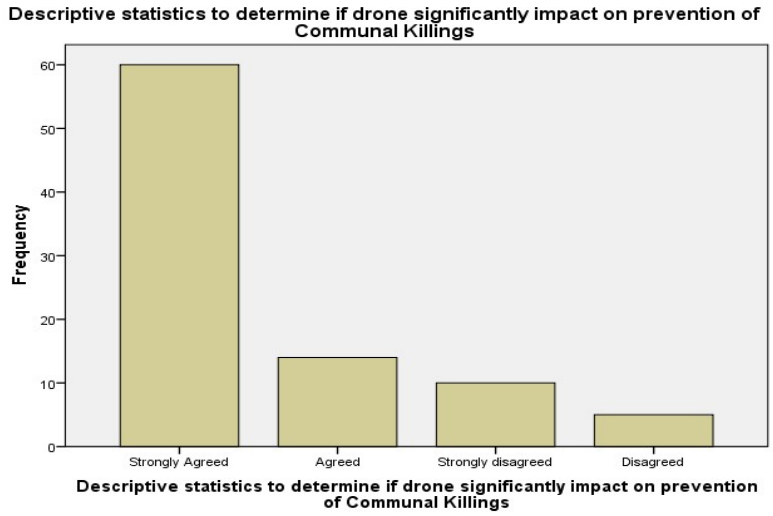
4.3 Research Questions Three

To what extent does the use of drones significantly impact the prevention of Community massacres in Nigeria?

Table 4.3

Descriptive statistics to determine if drones significantly impact on prevention of Community Massacre

Staff of Nigerian police college	Frequency	Percent	Valid Percent	Cumulative Percent	Mean	Std.Deviation
Strongly Agreed	60	67.4	67.4	67.4	1.5506	.90468
Agreed	14	15.7	15.7	83.1		
Strongly disagreed	10	11.2	11.2	94.4		
Disagreed	5	5.6	5.6	100.0		
Total	89	100.0	100.0			



Result; The descriptive statistics showed that 60 respondents representing 67.4 % of total respondents strongly agreed that drones significantly impact the prevention of Community Massacre in Nigeria

4.4 Test of Hypotheses

1. **Hypotheses One**

HO1. There is no significantimpact of drones in the prevention of kidnappings in Nigeria

Table 4.4.1presents a regression model summary derived from an SPSS regression analysis.TheR-squared value shows the extent to which the dependent variable relates to the independent variable.

Table 4.4.1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.998[a]	.889	.996	.72232	.078

a. Predictors: (Constant), Drones

b. Dependent Variable: Prevention of kidnappings

Result- model summary

The result of the analysis shows that the r^2 values stood at 88.9% which is high, therefore there is a significantimpact of drones in the prevention of kidnappings in Nigeria

2. **Hypothesis Two**

HO2 There is no significantimpact of drones in the prevention of Armed Robbery in Nigeria

Table 4.4.2 presents a regression model summary derived from an SPSS regression analysis**.** TheR-squared value shows the extent to which the dependent variable relates to the independent variable.

Table 4.4.2

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.984[a]	.969	.968	2.15106	.134

a. Predictors: (Constant), Drones

b. Dependent Variable: Prevention of Armed Robbery

sources: SPSS regression analysis

Result- model summary

The result of the analysis shows that the r^2 values stood at 99.6% which is high, therefore there is a significant impact of drones in the prevention of Armed Robbery in Nigeria

3.**Hypothesis Three**

HO3 There is no significantimpact of drones in the prevention of Community Massacre in Nigeria

Table 4.4.3 presents a regression model summary derived from an SPSS regression analysis**.** The R-squared value shows the extent to which the dependent variable relates to the independent variable.

Table 4.4.3

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.957[a]	.789	.915	4.74589	.059

a. Predictors: (Constant), Drones

b. Dependent Variable: Prevention of Community Massacre

Result- model summary

The result of the analysis shows that the r^2 values stood at 78.9% which is high.Therefore there is a significantimpact of drones in the prevention of Communal Killings in Nigeria

4.5Results

The result of the study is summarized as follows

1. 1.Therefore there is a significant impact of drones in the prevention of kidnapping in Nigeria
2. There is a significant impact of drones in the prevention of armed robbery in Nigeria
3. Therefore, there is a significant impact of drones in the prevention of community massacre in Nigeria

4.6 Discussion

The study showed that there is a significantimpact of drones in the prevention of kidnapping, armed robbery, and communal killings in Nigeria.In Nigeria, the use of drones can constitute an alternative to vehicular patrol to enhance the prevention of violent crimes.It is believed thatdrones can enhance effective aerial surveillance, effective, intelligence gathering, and monitoring security activities. Unmanned aerial vehicles (UAVs) known variously as drones or remotely piloted vehicles (RPVs) are small aircraft that can fly without an onboard human operator. They are autonomous machines that can carry cameras, sensors, communication equipment, or other payloads. Drones' usage has been identified as the most effective for intelligence gathering,aerial surveillance, and security monitoring in recent times.

5.0 Conclusion and Recommendations

5.1 Conclusion

The study concludes that drones are an effective alternative to vehicular patrols in Nigeria in preventing violent crimes such as kidnapping, armed robbery, communal killings, and others. The use of drones goes a long way to prevent such crimes. Therefore, adequate measures and strategies should be implemented to ensure the deployment of drones at all levels of security management to ensure the safety of lives and properties.

5.2 Recommendation

Based on the findings, the following recommendations are made;

1. The government should through policy formulation ensure the strategic deployment of drones in all security formations in the country
2. Adequate budgetary provision should be made to ensure the efficient deployment of drones by security forces
3. Adequate training of manpower should be made to ensure the efficient utilization of drone deployment
4. The deployment of drones should be adequate both in rural and urban areas to provide comprehensive monitoring and prevention of violent crimes
5. Adequate assessment of information and intelligence received from drones should be made for proper action.

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