EXPLORING THE EFFECTS OF CRIMINAL ACTIVITIES ON SUSTAINABLE TOURISM DEVELOPMENT IN CROSS RIVER STATE-NIGERIA

Ayuk Awunghe ACHU
Department of Sociology, University of Calabar, Calabar, Nigeria, e-mail: aawunghe@yahoo.com

Jacob Otu ENYIA
Faculty of Law, University of Calabar, Calabar, Nigeria, e-mail: Jake.enyia@yahoo.com

Ebegbulem JOSEPH
Department of Political Science, University of Calabar, Calabar, Nigeria, e-mail: jcebegbulem@yahoo.com.

Cleverty Afu NJONG
Faculty of Law, University of Calabar, Calabar, Nigeria, e-mail: Clevertyafu001@gmail.com

Odinka Godfrey EKENE
Department of Sociology, University of Calabar, Calabar, Nigeria, e-mail: Ekeneodinka2@gmail.com

Oko Peter EREH
Department of Geography and Environmental Management, University of Calabar, Calabar, Nigeria, e-mail: Okopeter36@yahoo.com.

Okongo John NSOR
Department of Business Management, University of Calabar, Calabar, Nigeria, e-mail: nsor-john@yahoo.com

Ojihod Isaac HONEY
Department of Social Work, University of Calabar, Calabar, Nigeria, e-mail: jihoisaac7@gmail.com.

Hodo B. RIMAN
Department of Banking and Finance, University of Calabar, Calabar, Nigeria, e-mail: horim105@yahoo.com

Tiku Oru TAKIM
Department of Social work, University of Calabar, Calabar, Nigeria, e-mail: takimtiku@unical.edu.ng


Abstract: The study examines the impact of crime on sustainable tourism development in the southern senatorial district of Cross River State, Nigeria, focusing on kidnapping, armed robbery, and drug abuse/trafficking in relation to the Calabar Carnival. Employing a survey design, data from 384 respondents were collected through questionnaires and interviews. Simple linear regression analysis indicates a significant association between kidnapping, armed robbery, drug abuse/trafficking, and sustainable tourism, particularly the Calabar Carnival. Recommendations include prioritizing local community involvement in tourism management to address security concerns, enhancing security personnel training in tourism education and modern policing techniques, and allocating increased funding for alternative means of subsistence for indigenous populations. These measures aim to mitigate negative impacts, encourage tourism, and foster sustainability in the region.

Keywords: Tourism, Crime, sustainability, armed robbery, Drug abuse, trafficking.

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INTRODUCTION

Over the past six decades, the tourism industry has continued to expand to assume the status of the fastest-growing sector in the global economy (Zihanai, 2020; Maphanga and Henama, 2019). Besides, the tourism sector has proven to be resilient to the economic crisis and unforeseen challenges, such as kidnapping, armed robbery, drug abuse and trafficking and terrorist attacks (Tyler, 2021). It may seem surprising, but even in the face of natural disasters or terrorist attacks; the numbers of international tourists have not waned; rather only the map of tourist destinations is changing (Global Terrorism Index, 2022). Tourism is also considered a strong incentive for other branches of the economy, and beyond its direct impact, tourism serves as a robust catalyst for other sectors like construction and agriculture (Quang, 2021). Hence, many governments and supranational organizations perceive tourism as a positive phenomenon (Wanner et al., 2020). For
example, the United Nations General Assembly declared the year 2017 the International Year of Sustainable Tourism for Development (United Nations, 2023). It was then recognized that tourism has the potential to be a driver of development and peace, promoting the harmonious co-existence of people from all countries (Giampiccoli et al., 2020).

In another development, Sustainable tourism marks a transformative evolution in the conceptualization and administration of tourism, focusing on minimizing adverse environmental and socio-cultural effects while optimizing advantages for local communities (Rantala et al., 2020). Additionally, the intricate interplay between crime and sustainable tourism introduces a potential hazard that, if not appropriately tackled, may redirect resources from development endeavours to targeting crime prevention or mitigation (Wu et al., 2021). Moreover, a heightened crime rate possesses the capacity to undermine the social fabric of communities in tourist destinations, resulting in a breakdown of trust and cohesion among residents (Bryan and Evan, 2021). This, in turn, directly jeopardizes tourism as a secure and welcoming recreational pursuit (UNWTO, 2020; Hrvoje and Ivana, 2019). As the global momentum behind sustainable tourism continues to grow, it becomes imperative to address the impact of crime on its advancement (Spencer and McBean, 2020). Crime in tourism destinations manifests in diverse forms, such as armed robbery, trafficking, drug-related offenses, and kidnapping (John et al., 2023). These incidents have the potential to discourage tourists, leading to a decline in tourism revenues. However, implementing community-based tourism strategies can enhance the security and welfare of both tourists and local communities in tourism areas (Sutresna et al., 2019). This underscores how the relationship between sustainable development and community-based tourism (CBT) may be utilized to enhance the management and operation of tourism (Putu et al., 2022). Beyond threatening the safety of tourists, such crimes undermine the integrity of a destination and dissuade potential visitors. Promoting community involvement in tourism management cultivates a feeling of ownership and accountability, resulting in heightened security measures and heightened vigilance against criminal activities and that, engaging local residents in the management of natural and cultural resources within community-based tourism can stimulate the local economy and yield more significant advantages (Lo and Janta, 2020; Pratt, 2020).

In another dimension, even when some locations may be incredible, those grappling with high crime rates could experience increased costs for security measures and law enforcement. This, in turn, can deplete the growth and sustainability of tourism (ARMORMAX’s 2022 report on the world's dangerous tourist destinations). Illegal activities such as kidnapping, armed robbery, and drug abuse or trafficking tend to flourish in regions with inadequate law enforcement, posing a threat to the tourism industry (Shivam, 2022). Crime has a detrimental impact on tourism, affecting both revenue generation and the overall visitor experience (Hrvoje et al., 2019). Additionally, crime plays a role in environmental degradation, further complicating the sustainability of tourism destinations (UNODC, 2021). Illegal activities such as kidnapping, armed robbery, and drug abuse or trafficking tend to flourish in regions with inadequate law enforcement, posing a threat to the tourism industry (Shivam, 2022). Effectively addressing crime within the framework of sustainable tourism necessitates a comprehensive approach that engages multiple stakeholders (Mustafa, 2021). This includes collaboration among governments, tourism organizations, local communities, and law enforcement agencies to create a cohesive strategy for crime prevention and management in tourist destinations (Agapito et al., 2023; Offiong, 2019).

Some effective strategies that include community engagement, investment in infrastructure, legislation and enforcement, and tourist/tourism education are necessary tools in tackling crime in tourism destinations, which is essential not only for ensuring the safety and security of tourists but also for protecting the long-term sustainability of these destinations. Implementing effective strategies to prevent and mitigate crime is vital for fostering a positive and sustainable future for the tourism industry (WITTC, 2021; Baloch et al., 2022).

The Concern

The modus operandi of criminals in tourism destinations has become increasingly fluid and transcends national borders. High-profile and lethal attacks targeting tourism places such as hotels, shopping centers, main streets, public squares and hospitals, as well as sites of symbolic and iconic value such as places of worship and tourist attractions, has ushered in a new era of protective planning in Europe and beyond but seriously lacking in Nigeria and some African countries (European Commission, 2022). The catastrophic effect of Crime on tourism sustainability and tourism industry is far consequential and suggest gain loss of a state and country’s socio-economic trajectory. On the other hand, focusing on minimizing negative environmental and socio-cultural impacts while maximizing benefits for local communities must inescapably deals with crime and criminality for its sustainability. Nigeria, with its rich cultural heritage, diverse landscapes, and historical sites, has immense tourism potential (Madandola and Boussaa, 2023). However, the persistence of crime in various forms within the country raises significant concerns that tend to hinder the achievement of sustainable tourism goals. The safety and security of tourists are paramount for the success of any tourism destination. But where tourists’ lives are threatened like in Nigeria, by insecurity, it becomes difficult for sustainable tourism to be realized (Winnie, 2022). These incidents deter potential tourists and damage the country's reputation as a safe tourism haven. Socially and culturally crime abrades the social cohesion of local communities, breakdown of trust among residents which can result to hostile environment for tourists and impede the preservation of cultural heritage and traditions.

Any environment related to tourism that allows criminal activities to persist and lack a robust legal framework and enforcement mechanisms would inevitably hamper efforts to advance the course of tourism. Put differently, public space like tourism sites and destinations that are generally open and accessible to people must always be subjected to safety and security strategies. But with the increasing rate of kidnapping, armed robbery trafficking and other forms of crime, fear have been expressed that sustained tourism will bear the brunt of failure of not providing adequate security globally.
(Brugger and Zongo, 2023; The Will, 2023; Olanrewaju et al., 2022). But in Kenya as part of the design to safe tourism, the government utilizes the reformation and rehabilitation of not only addicts but also criminals as well as ex-convicts, as a vital strategy in the prevention of crime to boost tourism (Nelson and Kenedy, 2023).

Many countries across the world, particularly those grappling with the challenges of armed robbery, kidnapping, and substance abuse, have implemented extensive treatment and rehabilitation initiatives as a preemptive strategy. Research indicates that such interventions hold promise in altering individuals’ harmful behaviors (Vanguard, 2023; CNDBlog, 2023; Afunugo, 2023). Neglecting to address crime proactively poses a significant threat to the hospitality industry (Amy, 2024). For instance, statistics reveal a substantial impact on tourism sustainability due to kidnapping incidents in various countries: Colombia (5,181 cases), Mexico (1,434), Russia (250), Brazil (515), Philippines (512), Nigeria (34), India (76), Ecuador (66), Venezuela (109), and South Africa (11) (Kpada and Jeffrey, 2022; Eseosa and Eguno, 2023). Additionally, reports indicate that 7 out of 10 Nigerians fear falling victim to crime (Olmoyegun et al., 2023). Ensuring internal safety and security remains fundamental for hosting tourists (Santana-Gallego et al., 2020).

The Pacific countries of Fiji, Palau, Marshall Islands, Solomon Islands and Tonga in a study, showed that citizens are subjected to the exploitation, for both forced labour and sexual exploitation, which seems to take place especially in the tourist areas (UNODC, 2023). The criminal activity of trafficking is considered to equate to a modern day form of slavery and it involves particularly egregious breaches of fundamental human rights. There is less information about the criminal gangs operating trafficking in persons and drugs in the region. Though Patterns of small groups of traffickers exists, deceiving foreign women to work in hospitality industry and eventually sexually exploiting them- is a minus to tourism sustainability. The leading countries have been found to be hit by the excessive use of hard drugs, including cocaine and heroin. According to the biannual report by NACADA, at least 45 percent of the residents in the region admitted to having used at least one substance (NACADA, 2023). Undoubtedly, the menace of drugs and substance abuse in the region is one of the thorny issues that have affected tourism industry negatively.

Any serious attempt towards developing tourism in Nigeria and the world generally must therefore begin with effective crime prevention and control strategies geared towards ensuring internal security (Hope, 2023). However, the regular targeting of tourist spaces by terrorist groups, with the aim of inflicting mass casualties, causing material damage, attracting public attention or enhancing the feeling of public insecurity, has necessitated, among other things, the consideration of protective security in the overall design (United Nations World Drug Report, 2022). In recognition of these challenges the government has put in place some policies in terms of laws and other related provisions to address real and perceived threat to tourism sustainability in cross river state. Among such include; tourism bureau law, which provides inter-alia; promote tourism and provides tourist facilities throughout cross river state, tourism development levy law, the Nigerian tourism police and development corporation act cap N137, LFN, 2004 and the likes ,all in an attempt to create a conducive environment for tourism to thrive. Unfortunately in spite of these efforts, sustaining tourism is still a herculean task with crime not abating. Hence the questions; what possibly could inform the meteoric rise in kidnapping, armed robbery, drug abuse and trafficking in areas associated with tourism?, to what extent can community activities assist or otherwise impact tourism sustainability in Cross-River State and Nigeria.

Research hypotheses
1. There is no significant relationship between tourism sustainability, Calabar carnival and kidnapping in cross river state.
2. There is no significant relationship between tourism sustainability, Calabar carnival and armed robbery in cross river state.
3. Drug abuse, trafficking and Calabar carnival has no relationship with tourism sustainability in cross river state.

Calabar carnival as cross river tourist event
The Calabar Carnival is one of Nigeria’s most celebrated and internationally recognized cultural festivals. Located in the vibrant city of Calabar in Cross River State, this annual event has gained a reputation for its grandeur, diversity, and artistic splendor. The Calabar Carnival is often referred to as "Africa’s Biggest Street Party." The Calabar Carnival was first conceived in 2004 by the Cross River State government as a way to promote tourism and celebrate the rich cultural heritage of the region. It has since grown into a massive event, attracting participants and tourists from across Nigeria and around the world. One of the defining features of the Calabar Carnival is its diverse cultural displays. It brings together people from various ethnic groups, showcasing a colourful array of costumes, dances, music and traditions from different parts of Nigeria and the world. The festival offers a unique opportunity to experience the country’s cultural music in one place. The carnival features several parades and processions, with the main highlight being the "Carnival Float,” where beautifully decorated and themed floats glide through the streets. These floats are often a visual spectacle, each representing a different aspect of Nigerian culture, history and contemporary issues.

The carnival hosts a variety of competitions, including dance competitions, masquerade displays, and beauty pageants. These events add an element of competition and excitement to the festival, with participants vying for coveted titles and prizes. The streets of Calabar come alive during the carnival with performances by local and international artists. Musicians, dancers, and other entertainers create a lively atmosphere for spectators and participants alike. The Calabar Carnival has significantly boosted tourism in the Cross River State and Nigeria as a whole. It attracts tourists, both domestic and international, contributing to the local economy and the growth of the tourism industry. Beyond the entertainment and economic aspects, the Calabar Carnival plays a crucial role in preserving and promoting Nigeria’s rich cultural heritage. It provides a platform for different communities to showcase and celebrate their traditions, helping to ensure that these customs are passed down to future generations. In recent years, the carnival has taken on an

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environmentally conscious theme, with a focus on eco-friendliness and the conservation of natural resources. This demonstrates a commitment to sustainable practices and responsible tourism, which stands as a testament to the cultural richness and vibrancy of the region. The Carnival Calabar is a dazzling testament to the unity, creativity, and cultural wealth of Nigeria. Its evolution into "Africa's Biggest Street Party" is a show of the passion and dedication of all those involved. Through its vibrant displays, spirited competitions and dynamic performances, the Carnival Calabar continues to inspire, educate and entertain, leaving an indelible mark on the cultural landscape of Nigeria and beyond.

LITERATURE REVIEW
Kidnapping and Tourism sustainability

Tourism stands as a crucial economic strength for many countries, playing a substantial role in GDP, job creation, and foreign exchange earnings. Despite its significance, the sustainability of tourism faces escalating challenges, with one notable threat being the surge in kidnapping incidents. Kidnapping, constituting a criminal act involving the unlawful abduction and confinement of individuals, poses serious ramifications for tourism. The connection between kidnapping and tourism holds grave implications for the tourism industry, which is pivotal for the economic growth of many nations globally. The potential disruption occasioned by kidnapping incidents has the capacity to dissuade tourists from visiting specific destinations, thereby exerting enduring repercussions on the affected region's tourism sector (Ibrahim et al., 2021; Eyisi et al., 2021; Kanu et al., 2023). In the same vein, kidnapping incidents can exert severe consequences on tourism sustainability, targeting tourists, tour operators and local residents alike. Varied impact of kidnapping, do exist to include but not restricted to; the economic impact, which is conspicuous, as kidnapping incidents can precipitate a substantial reduction in tourism revenue. Tourists may opt to cancel their trips or choose ostensibly safer alternatives, leading to diminished income for businesses operating within the tourism sector, including hotels, restaurants and tour operators. No doubt kidnapping is a global problem that affects countries all over the world from the economically advanced regions of the west to the economically backward regions of Africa, Asia, and beyond. Governments worldwide are working hard to address this problem and ensure that the perpetrators are captured and brought to justice. Unfortunately criminals in African countries, such as Nigeria and Cameroon, have used kidnapping of tourists and indigenes as funding and intimidation tactics (Godwin et al., 2022; Oketa, 2018).

Furthermore, the consequences of kidnapping extend to the realm of reputation and image, wherein it tarnish a destination's perception as a safe and secure place to visit. In modern businesses, the success of an organization is heavily reliant on the satisfaction of various stakeholders, such as customers, employees, creditors, suppliers, public authorities, and advocate groups, who hold diverse environmental, social, and economic interests. To effectively manage these stakeholders, businesses must consider the interests and concerns of all groups and individuals when making management decisions. This is essential to maintain a level of satisfaction among all stakeholders or at least ensure the most important ones are satisfied with the decision made. It is the moral obligation of managers to balance the interests of all stakeholders and direct the activities of the firm in a way that serves and coordinates the interests of all groups (Elda, 2023). The kidnapping effect encompasses a decline in investment, as investors may exhibit reluctance to inject capital into tourism-related projects within areas marked by a history of kidnapping incidents. The adverse impact also manifests in terms of decreased employment, elucidating how kidnapping incidents can trigger a downturn in tourism industry. This negatively affects the livelihoods of individuals and communities reliant on employment opportunities stemming from the tourism sector. The global tourism industry is a multi-billion-dollar sector that significantly contributes to the economies of many countries. However, alongside its economic benefits, tourism also brings about security challenges, which in the context of global tourism can manifest in various forms, including express kidnappings involving brief abductions for ransom and more prolonged cases where tourists are held captive for an extended period. There have been several agitations in Nigeria, but none have degenerated into the current barbaric, horrendous, heinous, and desplicable dimensions of carnage, massacres, and bloodletting orchestrated by terrorists, bandits, kidnappers, and other organized violent crime syndicates (Okwuwuda, 2023).

Express kidnappings, characterized by their short duration and the demand for immediate ransom, are often opportunistic and tend to target tourists perceived as wealthy. An example is the 2019 incident in Mexico, where a group of American tourists were briefly abducted in the state of Michoacán, highlighting the vulnerability of tourists to such incidents in certain regions. Extremist groups also engage in tourist kidnappings. These groups target areas with high tourist traffic to gain significant attention. For instance, Boko Haram, an Islamist extremist group in Nigeria, targeted tourists and expatriates in the northeastern part of the country, abducting over 200 schoolgirls in 2014, drawing international outrage. Incontrovertibly kidnappers view tourists as potential sources of ransom due to the assumption that they have access to financial resources. Some tourists may be specifically targeted based on their nationality, as seen in the 2011 kidnapping of Western tourists in Mali by Al-Qaeda in the Islamic Maghreb (AQIM), which demanded a substantial ransom for their release. For instance, in Nigeria engineer, Olusola Olaniyi was held for five days, by kidnappers and beaten severely. Only after his family and employer agreed to pay a ransom before he was released, in the middle of the night, on a road a few miles away from where he had been kidnapped. Nigeria has faced an outbreak of kidnappings in recent years, affecting people of all ages and classes: groups of tourists, students, commuters traveling on trains and in cars through Nigeria’s largest cities, and villagers in the northern countryside. With youth gangs and armed bandits finding that kidnapping for ransom produces big payoffs, such crimes have only multiplied Egonu et al., 2023; Sedano, 2019). Proactive government responses can mitigate the trend of kidnapping in tourism-dependent regions. A State like Cross River State-Nigeria, heavily reliant on tourism, must invest in security measures to protect tourists.
However, the presence of security forces can also create tensions, as seen in Egypt's case, where increased military presence disrupted the tourist experience in response to kidnappings in the Sinai Peninsula. Tourist awareness and precautions, staying in secure accommodations, and being cautious in unfamiliar environments, are crucial to reducing the risk of kidnapping, because it can be very useful for cities that are World Heritage Sites to know the preconceived ideas that visitors have before visiting the city, along with how satisfied they feel with the trip when it is finished, this information can be used to continuously improve the tourist experience (Caple and Williams, 2023; Jimber del Rio et al., 2020; Ede and Okafor, 2023). Governments often provide travel advisories and safety guidelines for citizens traveling abroad and for leisure and recreational activities. While global tourism offers economic benefits, it also exposes tourists to security risks, emphasizing the need for vigilance and appropriate precautions in an interconnected world. Scholarly debate around tourism offers destination that have endured protracted conflict provides opportunity to be able to transition destinations to a more developed and normalized state where tourism is viewed as both a catharsis for communities to heal and a wider tool for economic development. This focuses on the potential opportunity that exists in destination regions and how can that change mature over time to form a destination for development, resilience and capacity toward socio economic advancement (Stephen et al., 2023).

Drug abuse, trafficking and tourism sustainability

Global drug abuse and trafficking pose substantial challenges with far-reaching social, economic, and environmental implications. Conversely, sustainable tourism represents an approach to tourism development that seeks to reduce negative impacts while making profits for both the state and local communities. Drug abuse has become a troubling social problem in tourist destinations, such as popular beach resorts in Thailand, where a party culture prevails, and fostering recreational drug use among tourists (Kusuma et al., 2019). This poses challenges for local law enforcement and contributes to visceral patronage among tourists. For example, places like Koh Phangan, are known for its Full Moon Party, where drug abuse has led to public health concerns and heightened security measures. Drug trafficking tends to flourish in areas with high tourist traffic due to the opportunity to conceal illegal activities amid tourist crowds. This often results in violence and instability that negatively impact tourism (Marie et al., 2020). Also in Mexico, especially along the U.S.-Mexico border, where drug-related violence has discouraged tourists. Acapulco, once a prominent Mexican tourist destination, has experienced a decline in tourism due to drug cartel violence, significantly affecting the local economy (Preston, 2018).

In contrast, sustainable tourism emphasizes responsible travel practices, environmental conservation and community engagement, providing an alternative to tourism. In Costa Rica, for instance, sustainable tourism initiatives have thrived, with the country's commitment to conservation and community engagement safeguarding its natural beauty and reducing the appeal of illicit activities like drug trafficking (Jessica, 2018; Oxford Analytica, 2022). Sustainable tourism can empower local communities by offering alternative sources of income, alleviating economic desperation that often fuels drug-related activities. Community-based initiatives, such as cultural tours and artisan workshops, can divert both tourists and locals from drug abuse, as seen in Peru's Sacred Valley (Richardson, 2021). Addressing drug trafficking and promoting sustainable tourism requires collaboration at local, national and international levels. Governments, law enforcement agencies, and international organizations must unite to combat drug-related crime and advocate for responsible tourism. Drug abuse is a global public health issue affecting millions, involving the misuse of various substances with severe health consequences, including addiction, mental health disorders, physical health problems, and overdose-related deaths, imposing a significant burden on healthcare systems (Volkow and Blanco, 2023).

Drug trafficking conjures the illegal production, transportation and distribution of narcotics, often extending beyond national borders. Organized criminal groups typically control this transnational trade, leading to violence and instability in affected regions. The substantial profits derived from drug trafficking can fund criminal organizations and potentially disrupt the tourism trade industry. Hence is expedient to promote networking and initiatives focused on decoupling tourism’s growth from the increased use of natural resources and addressing the challenges of pollution, biodiversity loss and climate change and stressed on youth healths (Aulisio and Pereno, 2024). Traffickers employ various routes and methods, such as hidden compartments in vehicles, drug smuggling through postal services, and even tunnels between countries, specifically targeting tourism destinations for distribution. Global efforts led by the United Nations Office on Drugs and Crime recognize the adverse consequences of drug trafficking. Initiatives like the UN Convention against Transnational Organized Crime and the 2030 Agenda for Sustainable Development aim to combat the negative impacts of drug abuse and trafficking thereby reduce the associated risks. Sustainable tourism promotes practices that conserve cultural heritage, natural resources, reduce waste and foster peaceful coexistence. It prioritizes the respect of local cultures and involves communities in tourism activities to provide economic opportunities while preserving traditional practices. By creating jobs, generating income, reducing poverty, diversifying income sources and contributes to local economies.

Armed robbery and sustainable tourism development

The prevalence of armed robbery in Nigeria is fast becoming an epidemic and is being blamed on the dwindling economic fortunes of majority and the widening gap between the affluent and the poor in our society leading to violent crimes especially armed robbery. In Nigeria at present, no place is safe from the ravages of the armed robbers, they attack homes, offices, shops, restaurants and clubs to rob, rape, maim and kill. They operate at the banks with dynamites, strike at filling stations and swoop on victims at traffic jams (Patrick, 2020; Oliver, 2023). However, up until the 1960s, it was quite safe for people to travel from one part of the country to another. Before 1967, armed robbery was not a common phenomenon in Nigeria and did not attract public attention like pickpocketing, burglary, and stealing. This is because incidents of armed robbery were isolated and less violent and so did not generate a serious social problem (Habeeb and Hassien, 2018).
Recent events have shown that Nigerian society is insecure and vulnerable to crime. In tourism areas, the situation is perceived to have become worse, and in addition, the situation has diffused to non-tourism areas too (Cyril, 2023). It is also obvious that Nigeria's crime problem has implications for its position in the economic global market. A recent survey carried out by the United Nations Office on Drugs and Crime reveals that, Nigeria is rated as the riskiest country for business and tourism in the world. Since 1970, when the civil war ended, armed robbery is probably the only crime that has caused so much trepidation, apprehension, insecurity, public anger and concern to successive governments in Nigeria (Simeon and Nabil, 2022). Furthermore, it has been described as the most glamorous and fastest growing crime affecting much of the country. Armed robbery has also led to the sudden death of a good number of innocent citizens, security agents and robbers themselves. Tourists, families, and companies have lost lives and/or valuable belongings to armed robbers.

Unfortunately, it seems that insecurity of lives and property is among the major reasons that have led to poor patronage in tourism sustainability in Nigeria. Above all, it has discouraged foreign investors to invest in tourism business in Nigeria, thus affecting the economic growth of the nation. Armed robbery has truncated leisure activities in many tourism destinations in the world (Saraiva and Teixeira, 2023). A study to examine the impact of armed robbery on leisure pattern, in the city of Bamenda, found out that armed robbery was considered a crime that has wrecked serious havoc in tourist related areas of Africa. The paper argues that armed robbery in the city of Bamenda caused socio-economic and political imbalances among the social stratum of the city dwellers. The findings of the study further revealed that, armed robbery remained a source of continuous threat, harassments, violence and intimidation to the city dwellers of Bamenda, North West Region of Cameroon (Ofe Ako-Mbi et al., 2021).

A recent World Bank study on economic development in Jamaica identified armed robbery as one of the main reasons for weak economic development in Jamaica due to its substantial costs on business in the country. According to the World Bank survey, violent crime has a deterrent effect on tourism and enterprise behaviour particularly enterprise entry and expansion. A perception of armed robbery as violent crime has a serious obstacle that impact on sustainable tourism. In extreme cases, a high incidence of armed robbery may induce enterprises to exit from the market place or relocate to safer locations. Therefore, outlets in areas they perceive to be insecure are alienated and this may make business in such locations not viable. Armed robbery remains a more significant problem on Less Developed Countries (LDC’s) compared to more advanced European Union member states. A large part of these differences are due to structural variations including the share of industry and services in the economy, the share of the private sector in Gross Domestic Product (GDP) and unemployment (World Bank, 2018). These interests stem from the fact that the entrepreneurial activities of firms have a relationship with economic development, job creation, spill-over effects, and, overall, macroeconomic stability. Nevertheless, such entrepreneurial activities need a quality business environment in order to thrive and to be sustainable. Available literature has shown that the presence of crime significantly erodes the quality of the business environment, either directly or indirectly. Firms operating in countries that are riddled with crime can experience a decline in profit and productivity. A possible deterrence effect of crime on overall economic development includes the relationship between crime and inflows of Foreign Direct Investments (FDI) (World Bank, 2018).

THEORETICAL FRAMEWORK

Rational Choice Theory and Criminal Behavior:

Rational choice theory is a framework used in various social sciences, including economics, sociology, criminology, and political science, to explain human decision-making. It is based on the assumption that individuals are rational actors who make choices by carefully weighing the potential benefits and costs of their actions. This theory can be applied to understand a wide range of behaviors, including criminal activity, consumer choices, and political decisions. Rational choice theory suggests that individuals weigh the potential gains from committing a crime against the perceived risks or costs of getting caught. In the context of tourism, criminals may see opportunities to exploit the vulnerability of tourists and destinations for financial gain. Criminal activities such as theft, kidnapping and drug-related offenses often target tourists due to their perceived vulnerability. Tourists are typically unfamiliar with the local environment and legal systems, making them attractive targets for criminals seeking to maximize their gains (Aulisio and Pereno, 2024). For example, pickpocketing in crowded tourist areas like the Coliseum in Rome is a crime driven by rational choice. Offenders target tourists who are less likely to be familiar with local crime patterns and who may carry valuables.

Rational choice theory also suggests that increasing the perceived risks or costs of committing a crime can deter potential offenders. Adequate security measures, visible law enforcement, and surveillance can deter criminals from targeting tourists and thus enhance tourism sustainability (García-Hernández et al., 2023). For Example the presence of tourism police in popular tourist areas, such as the beaches of marina resort, Calabar-Nigeria, can create a visible deterrence to potential criminals, reducing the likelihood of criminal activity. Tourists themselves may apply rational choice principles when making travel decisions. Perceptions of destination safety influence tourists' choices, as they weigh the perceived risks and benefits of visiting a particular location. This can express itself when tourists choose to avoid destinations with high crime rates, such as certain neighbourhoods in Rio de Janeiro, Brazil, in favour of safer alternatives, impacting the sustainability of those destinations. According to this theory, tourism sustainability depends on effective crime prevention strategies. Destinations that invest in crime prevention, including community engagement, education and local employment, can reduce the incentives for criminal behaviour, hence promoting long-term tourism sustainability.

Implicitly, rational choice theory helps us understand the decision-making process of criminals in targeting tourists and the subsequent impact on tourism sustainability. By examining the rational calculations made by both offenders and
tourists, we can develop effective crime prevention strategies and security measures that can enhance the safety and attractiveness of tourist destinations, ultimately promoting sustainability. While rational choice theory provides valuable insights into human decision-making, critics argue that it oversimplifies human behaviour by assuming perfect rationality and neglecting psychological factors, emotions, and social influences that can also shape choices. Nonetheless, it remains a foundational framework for understanding and predicting decision-making in various contexts.

MATERIALS AND METHOD

The research was conducted in the Southern Senatorial District of Cross River State, situated between latitude 6.167 and longitude 8.6601 east of the Greenwich meridian, within the tropical rainforest region of Nigeria, estimated at approximately 9° 28’. This district shares its borders with the Cameroon Republic to the East, Benue State to the North, Abia and Ebonyi States to the West, Akwa Ibom State to the South West, and the Atlantic Ocean to the South. Additionally, it lies within the Cross River Basin, encompassing a total area of 53,855 km², of which approximately 44,105 km² falls within Nigeria and Cameroon. The Southern Senatorial District of Cross River State comprises seven local government areas: Akamkpa, Akpabuyo, Bakassi, Biase, Odukpani, Calabar Municipality, and Calabar South Local Government Areas. The area is characterized by a predominantly civil service-based economy, with farming and fishing as the primary occupations. Geographically, the Southern Senatorial District extends from the coastal regions along the Atlantic Ocean to the freshwater swamps of Akpabuyo, Calabar, Bakassi, and Odukpani Local Government areas, with mangrove vegetation. It further extends through the dense, pristine forests of Akamkpa, known for its unique plant and animal species. The region experiences a tropical climate with an extended wet season from March to December (approximately ten months) and a shorter dry season of two months. The influence of the harmattan, a dry, dusty wind, is less pronounced in the Calabar Municipality and Calabar-South areas. The temperature in the Southern Senatorial District remains relatively stable throughout the year, with average temperatures ranging between 25 and 29 degrees Celsius.

The population of the Southern Senatorial District is characterized by its rich diversity, often described as a microcosm of various ethnic groups, languages and cultures. These groups, like many other residents of Cross River State, belong to the Bantu ethnic stock, originating from Central Africa. Predominant cultural groups in the Southern Senatorial District include the Efiks, Efuts, Quas, Ejagham, and Ekiots. Despite linguistic variations, the people in this district share commonalities in their clothing styles, music, dancing and active engagement in small and medium enterprises, reflecting their shared heritage. The district's natural resources, accessibility and population collectively position it as the commercial hub of Cross River State. The study's population includes both male and female adult respondents residing in the Southern Senatorial District of Cross River State, Nigeria. The study focuses on respondents aged 18 years and above.

The sample size comprises individuals from various backgrounds, including village chiefs, traditional rulers, civil servants, students, artisans and entrepreneurs who currently reside in the Southern Senatorial District of Cross River State, Nigeria. As the exact population of the study is unknown, the researchers adopted the Cochran sample determinant to the sample size. The formula for Cochran's sample size determinant is as follows:

\[ n = \frac{z^2pq}{e^2} \]

Where: n represents the required sample size; Z signifies the confidence level (set at 95% or 1.96); p denotes the proportion of male and female adults in the Southern Senatorial District of Cross River State aged 18 years and above (given in this study as 50%, i.e., 0.5); q represents the complement of p (set at 50%, i.e., 1 - 50%, or 0.5); e stands for the level of accuracy or margin of error (set at 0.05). Applying this formula by Cochran (1953) we get:

\[ n = \frac{(1.96)^2 (0.5)(0.5)}{(0.05)^2} = 385. \]  
\[ n = (3.8416 \times 0.25)/0.0025; n = 0.9604 / 0.0025; n = 384.16. \]

Rounded to the nearest whole number, the required sample size is 384.

This study employed a multi-stage sampling technique, chosen for its suitability given the large and diverse study population, which comprises various clusters such as towns, villages, households and individuals. The sampling process proceeded through several stages to ensure representation. In the initial stage, the Southern Senatorial District was divided into seven distinct local government areas, namely: Calabar South, Akamkpa, Akpabuyo, Bakassi, Odukpani, Biase, and Calabar Municipality. From these seven local government areas (clusters), a simple random sampling method using the balloting technique was utilized to select four local government areas. The chosen local government areas were Calabar South, Akpabuyo, Bakassi and Calabar Municipality.

In the subsequent stage, two wards were randomly selected from each of the four selected local government areas, employing a simple random sampling technique. This led to the identification of eight selected wards. Furthermore, from these eight wards, two communities were randomly chosen, amounting to a total of sixteen selected communities. The balloting method was used to select these communities, with the initial two communities listed per ward being chosen. For the final stage of respondent selection, a systematic random sampling technique was employed. All inhabited houses within each selected community were numbered consecutively, distinguishing even and odd numbers. The study focused solely on even-numbered houses, which were systematically sampled within each enumerated cluster. Questionnaires were administered to all adults found in the selected houses. This systematic approach was consistently applied across all sixteen chosen communities. Consequently, in each of the selected communities, twenty-four respondents were chosen, resulting in a total sample size of 384 respondents from the Southern Senatorial District, Cross River State, Nigeria. This multi-stage sampling technique ensured a comprehensive and representative selection of study participants.
Data collection for this study was both primary (respondent’s interviews) and secondary source (textbooks, journal articles, government publications). These two primary tools were selected for their superior validity in gathering the necessary data for the research. The questionnaire was structured with a combination of closed and open-ended questions and divided into two sections. Section ‘A’ of the questionnaire focused on capturing respondents’ socio-demographic information, including details such as age, gender, marital status, and educational level. Section ‘B’ contained structured, closed-ended questions addressing the substantive issues raised in the research questions and hypotheses. The questionnaire was designed using a four-point Likert scale, with response options ranging from “Strongly Agree” to “Strongly Disagree.” To ensure effective data collection, three research assistants were recruited and received training in questionnaire administration. In addition to the questionnaire, a structured in-depth interview schedule was developed to collect qualitative data. The interview schedule included a list of variables to be measured and was employed in interviews with crime victims, security personnel, and community leaders in selected communities within the study area. The selected interviewees were notified in advance, and appointments were scheduled for the interviews.

**Discussion of results**

The Statistical Package for Social Sciences (SPSS) version 18 was used to analyze data. Descriptive statistics (percentages) was used to analyze the demographic data (gender; age; educational background, marital status, and occupation) and the results are presented in Table 1. While mean and standard deviation was used for other variables and presented in Table 2. Results of analysis of demographic data of respondents as presented in Table 1 above revealed that; out of the 367 accessible respondents, 142 respondents representing 38.69% are females, while 225 representing 61.30% are males. As for age distribution of respondents’, 64 (17.43%) are between 18-27 years, 111 (30.24%) are between 28 - 37 years, 57 (15.53%) are between 38 - 47 years, 105 (28.61%) are 48 - 57 years, 30 (8.17%) are 58 years and above. For respondents’ marital status, 109 (29.70) are single, 205 (55.85) are currently married, 22 (5.99) are divorced/separated, 17 (4.63) widowed, 14 (3.81) are widowers. On respondents’ educational background 21 (5.72) percent are completed primary education, 148 (40.32%) completed secondary education, 198 (53.96%) completed tertiary education. On respondent occupation; 133 (36.23) are students, 131 (35.69) are civil servants/traders, 103 (29.06) are artisans/entrepreneurs.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>N</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>142</td>
<td>38.69</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>225</td>
<td>61.30</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>367</td>
<td>100.00</td>
</tr>
<tr>
<td>Age</td>
<td>18-27 years</td>
<td>64</td>
<td>17.43</td>
</tr>
<tr>
<td></td>
<td>28-37 years</td>
<td>111</td>
<td>30.24</td>
</tr>
<tr>
<td></td>
<td>38-47 years</td>
<td>57</td>
<td>15.53</td>
</tr>
<tr>
<td></td>
<td>48-57 years</td>
<td>105</td>
<td>28.61</td>
</tr>
<tr>
<td></td>
<td>58 years and above</td>
<td>30</td>
<td>8.17</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>367</td>
<td>100.00</td>
</tr>
<tr>
<td>Marital status</td>
<td>Single</td>
<td>109</td>
<td>29.70</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>205</td>
<td>55.85</td>
</tr>
<tr>
<td></td>
<td>Separated</td>
<td>22</td>
<td>5.99</td>
</tr>
<tr>
<td></td>
<td>Widowed</td>
<td>17</td>
<td>4.63</td>
</tr>
<tr>
<td></td>
<td>Widower</td>
<td>14</td>
<td>3.81</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>367</td>
<td>100.00</td>
</tr>
<tr>
<td>Education background</td>
<td>Primary Edu</td>
<td>21</td>
<td>5.72</td>
</tr>
<tr>
<td></td>
<td>Secondary Education</td>
<td>148</td>
<td>40.32</td>
</tr>
<tr>
<td></td>
<td>Tertiary Education</td>
<td>196</td>
<td>53.96</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>367</td>
<td>100.00</td>
</tr>
<tr>
<td>Occupation</td>
<td>Student</td>
<td>133</td>
<td>36.23</td>
</tr>
<tr>
<td></td>
<td>Civil servant/traders</td>
<td>131</td>
<td>35.69</td>
</tr>
<tr>
<td></td>
<td>Artisans/entrepreneurship</td>
<td>103</td>
<td>29.06</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>387</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 2. Descriptive statistics of study variables (source: field survey 2023)

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kidnapping</td>
<td>367</td>
<td>16.2180</td>
<td>5.62405</td>
</tr>
<tr>
<td>Armed robbery</td>
<td>367</td>
<td>14.2289</td>
<td>6.69327</td>
</tr>
<tr>
<td>Drug abuse and trafficking</td>
<td>367</td>
<td>14.2289</td>
<td>5.35170</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>367</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Also, mean and standard deviations of study variables as presented in Table 2 above shows as follows; kidnapping (M = 16.2180, SD = 5.62405), armed robbery (M = 14.2289, SD = 6.69327), drug abuse/trafficking (M = 14.8011, SD = 5.35170), drug abuse, trafficking and tourism sustainability (M = 20.7602, SD = 13.11185).

How does the occurrence of kidnapping impact tourism sustainability, particularly concerning the Calabar carnival? Descriptive statistics, including frequency and percentages, were utilized to address this research question, with the results presented in Table 3 below. The analysis reveals participants’ responses as follows: When asked whether
Kidnapping constitutes a significant social problem negatively affecting tourism development and Calabar carnival, 217 respondents (59.12%) strongly agreed, 104 (28.33%) agreed, while 20 (5.44%) disagreed, and 26 (7.08%) strongly disagreed. On the question of whether families of abducted persons experience severe financial stress in the process of raising money to free their loved ones, 177 participants (48.22%) strongly agreed, 112 (30.51%) agreed, 25 (6.81%) disagreed, and 21 (5.72%) strongly disagreed. Regarding whether the fear of being kidnapped has deterred some tourists from traveling for recreational engagement, 210 individuals (57.22%) strongly agreed, 130 (35.42%) agreed, 17 (4.68%) disagreed, and 10 (2.72%) strongly disagreed. As for whether most victims of kidnapping sell their properties to buy their freedom from their captors, 162 respondents (44.14%) strongly agreed, 175 (47.68%) agreed, while 12 (3.26%) disagreed, and 18 (4.90%) strongly disagreed (Figure 2).

### Table 3. Responses on Kidnapping (Source: Field survey, 2023)

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEMS</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Kidnapping is a serious social problem that affect sustainable tourism and Calabar carnival negatively</td>
<td>217 (59.12)</td>
<td>104 (28.33)</td>
<td>20 (5.44)</td>
<td>26 (7.08)</td>
</tr>
<tr>
<td>6</td>
<td>Families of the abducted tourists or persons are subjected to severe financial stress in the processes of raising money to free their loved ones</td>
<td>177 (48.22)</td>
<td>112 (30.51)</td>
<td>41 (11.17)</td>
<td>37 (10.08)</td>
</tr>
<tr>
<td>7</td>
<td>Neighbours of the abducted persons live in fear and engage less in Calabar carnival activities to avoid being victims of Kidnapping</td>
<td>158 (43.05)</td>
<td>163 (44.41)</td>
<td>25 (6.81)</td>
<td>21 (5.72)</td>
</tr>
<tr>
<td>8</td>
<td>The fear of being kidnapped has made some persons not to travel for Calabar carnival tourism engagement</td>
<td>210 (57.22)</td>
<td>130 (35.42)</td>
<td>17 (4.68)</td>
<td>10 (2.72)</td>
</tr>
<tr>
<td>9</td>
<td>Most victims of kidnapping sell their properties to buy their freedom from their captors</td>
<td>162 (44.14)</td>
<td>175 (47.68)</td>
<td>12 (3.26)</td>
<td>18 (4.90)</td>
</tr>
</tbody>
</table>

What is the relationship between armed robbery, sustainable tourism and Calabar carnival? Descriptive statistics, including frequencies and percentages, were employed to address the research question, and the findings are outlined in Table 4 below.

### Table 4. Responses on armed robbery (Source: Field survey, 2023)

<table>
<thead>
<tr>
<th>S/N</th>
<th>ITEMS</th>
<th>SA</th>
<th>A</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Armed robbery constitute a serious security problem during Calabar carnival</td>
<td>188 (51.22)</td>
<td>141 (38.41)</td>
<td>20 (5.44)</td>
<td>18 (4.90)</td>
</tr>
<tr>
<td>2</td>
<td>Individuals' properties and their valuables are stolen from them during Calabar carnival</td>
<td>175 (47.68)</td>
<td>162 (44.14)</td>
<td>18 (4.90)</td>
<td>12 (3.26)</td>
</tr>
<tr>
<td>3</td>
<td>Armed robbery create fear in peoples mind thereby affecting their engagement in Calabar carnival</td>
<td>221 (60.21)</td>
<td>130 (35.42)</td>
<td>10 (2.72)</td>
<td>6 (1.63)</td>
</tr>
<tr>
<td>4</td>
<td>Proceeds from armed robbery are used for wasteful extravagant lifestyle instead of investment</td>
<td>198 (53.95)</td>
<td>133 (36.23)</td>
<td>20 (5.44)</td>
<td>16 (4.35)</td>
</tr>
<tr>
<td>5</td>
<td>Armed robbery discourages people from engaging in carnival Calabar activities</td>
<td>211 (57.49)</td>
<td>120 (32.69)</td>
<td>25 (6.81)</td>
<td>11 (2.99)</td>
</tr>
</tbody>
</table>

The results of the analysis indicate participants' responses as follows: Regarding whether armed robbery constitutes a significant security problem for tourism sustainability in the area, 188 respondents (51.22%) strongly agreed, 141 (38.41%) agreed, while 20 (5.44%) disagreed, and 18 (4.90%) strongly disagreed. On the question of whether individuals' properties and valuables are stolen during 3-3 Calabar carnival period, 175 participants (47.68%) strongly agreed, 162 (44.14%) agreed, 18 (4.90%) disagreed, and 12 (3.26%) strongly disagreed. When asked if armed robbery creates fear in tourists' minds, thereby impacting their engagements in Calabar carnival, 221 individuals (60.21%) strongly agreed, 130
(35.42%) agreed, 10 (2.72%) disagreed, and 6 (1.63%) strongly disagreed. Regarding whether armed robbery attacks are responsible for the decline in patronage of Calabar Carnival as a tourism event in recent times, 198 respondents (53.95%) strongly agreed, 133 (36.23%) agreed, 20 (5.44%) disagreed, and 16 (4.35%) strongly disagreed. As for whether armed robbery discourages tourists from visiting sites, 211 participants (57.49%) strongly agreed, 120 (32.69%) agreed, while 25 (6.81%) disagreed, and 11 (2.99%) strongly disagreed (Figure 3).

Figure 3. Responses on armed robbery

Examining the impact of drug abuse, trafficking and Calabar carnival on sustainable tourism of Southern Senatorial District, Cross River State, Nigeria. Descriptive statistics, including frequencies and percentages, were employed to address research questions. The results, presented in Table 5 below, outline participants’ responses as follows: Regarding whether drug abuse/trafficking can prompt behaviour that can instigate crime during carnival calabar, 184 respondents (50.13%) strongly agreed, 155 (42.23%) agreed, while 10 (2.72%) disagreed, and 18 (4.90%) strongly disagreed. On the question of whether drug abuse/trafficking can lead to conflicts and clashes resulting in serious injuries or even death of tourists during carnival period, 154 participants (41.96%) strongly agreed, 148 (40.32%) agreed, 38(10.35%) disagreed, and 27 (7.35%) strongly disagreed. When asked if involvement in drug abuse/trafficking can pose a risky behaviour endangering tourists’ lives during the Calabar Carnival, 166 respondents (45.23%) strongly agreed, 137 (37.32%) agreed, 49 (13.35%) disagreed, and 15 (4.08%) strongly disagreed. Concerning whether tourists are hesitant to visit tourism destinations where drug abuse/trafficking is prevalent, 201 individuals (54.76%) strongly agreed, 155 (42.23%) agreed, 7 (1.90%) disagreed, and 4 (1.08%) strongly disagreed. Regarding whether arrested culprits are adequately punished when apprehended, 189 participants (51.49%) strongly agreed, 166 (45.23%) agreed, 9 (2.45%) disagreed, and 3 (0.083%) strongly disagreed.

There is no significant relationship between kidnapping, calabar carnival and sustainable tourism development of Southern Senatorial District, Cross River State, Nigeria. Inferential statistics involving simple linear regression was used to test at 0.05 level of significance and the result is presented in Table 5 below. The result of analysis revealed R-value of 0.195. Correlation coefficient is a standardized measure of an observed degree of relationship between variables, it is a commonly used measure of the size of an effect, and that values of ±.1 represent a small effect, ±.3 is a medium effect and ±.5 is a large effect. Also, the R²-value of .038 imply that 38% of total variance is accounted for by predictor variable (kidnapping).

Furthermore, the regression ANOVA revealed that the F (2, 366) = 14.481; p < .05, is significant. Thus the null hypothesis was rejected. This implies that there is a significant linear association of the predictor variable (kidnapping) on tourism sustainability and development in the study area. The adjusted R² (.036) shows some shrinkage of the unadjusted
value (.038) indicating that the model could be generalized on the population. Based on the result, it was concluded that there is a significant relationship between kidnapping and tourism development and carnival Calabar, Cross River State, Nigeria.

Table 6. Summary of simple linear regression analysis of the relationship between kidnapping, Calabar carnival and tourism development (Source: Field survey, 2023)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kidnapping</td>
<td>15.2398</td>
<td>6.77687</td>
</tr>
<tr>
<td>Sustainable tourism development</td>
<td>20.7602</td>
<td>13.11185</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>2401.069</td>
<td>2</td>
<td>14.481</td>
<td>.195*</td>
<td>.038</td>
<td>.036</td>
<td>.000*</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>60521.83</td>
<td>36</td>
<td>165.813</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>62922.89</td>
<td>36</td>
<td>9</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is no significant relationship between tourism sustainability, Calabar carnival and armed robbery in cross river state. Both variables were measured continuously and inferential statistics involving simple linear regression was used to test the hypothesis at 0.05 level of significance and the result is presented in Table 6 above. The result of analysis revealed R-value of 0.229. Correlation coefficient is a standardized measure of an observed degree of relationship between variables, it is a commonly used measure of the size of an effect, and that values of ± .1 represents a small effect, ± .3 is a medium effect and ± .5 is a large effect. Also, the R²-value of .052 imply that 52% of total variance is accounted for by predictor variable (armed robbery). Furthermore, the regression ANOVA revealed that the F (2, 366) = 27.461; p < .05, is significant. Thus, the null hypothesis was rejected.

This implies that there is a significant linear relationship of the predictor variable (armed robbery) on Calabar carnival and tourism sustainability in cross river state. The adjusted R² (.051) shows some shrinkage of the unadjusted value (.052) indicating that the model could be generalized on the population. Based on the result, it was concluded that armed robbery has no significant relationship with Calabar carnival and sustainable tourism in Cross River State, Nigeria.

Table 7. Summary of simple linear regression analysis of the relationship between tourism sustainability, Calabar carnival and armed robbery

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armed robbery</td>
<td>14.2289</td>
<td>6.69327</td>
</tr>
<tr>
<td>Sustainable tourism development</td>
<td>20.7602</td>
<td>13.11185</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>8558,456</td>
<td>2</td>
<td>27,461</td>
<td>.229*</td>
<td>.052</td>
<td>.051</td>
<td>.000*</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>54364,44</td>
<td>36</td>
<td>148,944</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>62922.89</td>
<td>36</td>
<td>9</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Drug abuse, trafficking and Calabar carnival has no relationship with tourism sustainability in cross river state. Both variables were measured continuously and inferential statistics involving simple linear regression was used to test the hypothesis at 0.05 level of significance and the result is presented in Table 7 above. The result of analysis as presented in table 4.10, revealed R-value of 0.206. Correlation coefficient is a standardized measure of an observed degree of relationship between variables, it is a commonly used measure of the size of an effect, and that values of ± 1 represent a small effect, ± 3 is a medium effect and ± 5 is a large effect. Also, the R²-value of .042 imply that 42% of total variance is accounted for by predictor variable (security operation). Furthermore, the regression ANOVA revealed that the F (2, 366) = 16.143; p < .05, is significant. Thus the null hypothesis was rejected. This implies that there is a significant linear association of the predictor variable on sustainable tourism development in the study area.

The adjusted R² (.040) shows some shrinkage of the unadjusted value (.042) indicating that the model could be generalized on the population. Based on the result, it was concluded that drug abuse and trafficking significantly affects sustainable tourism development of Southern Senatorial District, Cross River State, Nigeria.

DISCUSSION OF RESULTS

The statistical analysis conducted for hypothesis one underscores a significant correlation between kidnapping, Calabar carnival and the sustainable tourism development of the Southern Senatorial District in Cross River State, Nigeria (Streimikiene et al., 2021). This conclusion finds support in prior research, including studies by (Yusufu, 2022; Ibrahim et al., 2021; Makua, 2023; Chen et al., 2022). These studies revealed the multifaceted economic impact of kidnapping, encompassing both direct and indirect costs. At the individual level, direct costs involve the economic value of money lost to kidnappers, while indirect economic costs include expenses incurred for preventive measures, such as the employment of private security personnel. Additionally, establish a clear link between kidnapping and the sustainability of tourism, emphasizing the profound implications for the tourism industry—a crucial driver of economic growth globally (Manzoor et al., 2019). Kidnapping incidents have the potential to disrupt tourism by deterring visitors from specific destinations, thereby
causing lasting backlash on the affected region's tourism sector. The study's findings highlight that the prevalence of kidnapping in Nigeria stems from deficiencies in the implementation of laws to prosecute offenders. Consequently, the social and economic well-being of the population is adversely impacted by the widespread occurrence of kidnapping in the country.

The result of hypothesis two indicates a significant association between tourism sustainability, Calabar carnival and armed robbery. This aligns with the observations, underscoring the pervasive threat of armed robbery across various settings in Nigeria, including homes, offices, shops, restaurants and churches (Rolake, 2023; Oliver, 2023). The perpetrators employ diverse tactics, ranging from dynamite attacks at banks to striking at filling stations and targeting victims in traffic jams. In the tourism areas, the situation appears to have exacerbated, contributing to a broader concern about Nigeria's crime problem and its repercussions on tourism sustainability and global economic standing. A recent survey conducted by the United Nations Office on Drugs and Crime (UNODC), World Drug Report 2023 designates Nigeria as the riskiest country for business globally, primarily attributing this risk to armed robbery and other criminal activities. The study further identifies armed robbery as the fastest-growing crime detrimentally impacting tourism in Nigeria, affirming assertions, that Nigeria's business and tourism environment has worsened by (Oladehinde, 2022).

The research findings also validate the concerns raised by emphasizing that armed robbery poses a persistent threat, causing disturbances, violence, and intimidation for tourists and residents in Africa. Importantly, the study underscores the substantial reduction in tourism traffic, including the Calabar Carnival, due to crime, thereby adversely affecting the overall economic performance of the state (Ofe Ako-Mbi et al., 2021).

The results of hypothesis three indicate a significant correlation between drug abuse, trafficking and sustainable tourism development. This finding aligns with the conclusions of (Preston, 2018), who argued that drug abuse and trafficking tend to thrive in areas with high tourist traffic, presenting opportunities to conceal illegal activities within the crowds of tourists. This, in turn, leads to violence and instability, negatively impacting the tourism sector. The study also notes that drug abuse and trafficking activities strongly contribute to a range of criminal activities, including armed robbery, kidnapping, looting, rape, and murder, substantially affecting sustainable tourism, including the Calabar Carnival, and the overall state economy. The study's findings are consistent with the results of research conducted on the effects of drug abuse, cultism vis-a-vis tourism development in Nigeria's fourth republic (Grace et al., 2020).

The paper argues that the consequences of drug abuse and trafficking are destructive, forming the basis for harassment, property molestation, and hindrances to tourism development. These, in turn, affect the socio-economic development and well-being of the local population. The findings of work highlights drug abuse as a significant social problem in tourist destinations, exemplified by popular beach resorts in Thailand fostering a party culture where recreational drug use is prevalent among tourists. This poses challenges for local law enforcement and contributes to social problem as affirmed by (Marie et al., 2020; Kusuma et al., 2019). In places like Koh Phangan, known for its Full Moon Party, drug abuse has led to public health concerns and increased security measures.

**CONCLUSION**

The research aimed to examine the connection between crime and sustainable tourism, as well as the Calabar Carnival in the Southern Senatorial District of Cross River State, Nigeria. Following a comprehensive review of literature and data analysis, the study draws the following conclusions: There exists a notable correlation between kidnapping, Calabar carnival and the sustainable tourism development. There exists a significant relationship between armed robbery, Calabar carnival and tourism development. Drug abuse, trafficking is linked to Calabar carnival and sustainable tourism development. From the foregoing, the following recommendations were made: inclusive participation of local communities in tourism management is paramount to address security hiccups.

This strategy can substantially mitigate negative environmental and socio-cultural impacts, encourage tourists while concurrently maximizing benefits for the state and country. There should be an urgent requirement to enhance the training of security personnel, specifically in the areas of tourism education and modern policing techniques-this should include instruction in forensic science, psychology, and the utilization of DNA and ballistics techniques. Such training is essential to keep pace with the evolving landscape of crime prevention technologies.

The government should allocate increased funding towards alternative means of subsistence like snail farming, goat rearing and skill acquisition training for indigenous populations; this strategic investment not only assures local communities, fostering sustained tourism, but also positions them as champions for the cause of tourism sustainability and further uplift the multitude of unemployed youths from the streets. This proactive approach holds the potential to significantly diminish eradicate issues such as kidnapping, drug abuse / trafficking, and armed robbery, which have been detrimental to sustainable tourism vis-a-vis Calabar carnival.

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