Between Promise and Practice: Challenges of Information and Communication Technology Deployment in Crime Management in Delta State, Nigeria, 2020-2025

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Abstract
This study examined the role of ICT in crime management in Delta State, Nigeria, between 2020 and 2025. A descriptive survey research design was used in this study. Primary data were collected through a structured questionnaire administered to respondents. The data collected were coded and analysed using descriptive and inferential statistical techniques. The opinions of the respondents were summarised using frequencies, percentages, mean score and the standard deviation, while Simple Linear Regression analysis was used for hypothesis testing and to determine the influence of the variables of ICTs on the crime management. The results indicated that ICT greatly improved the capability of security agencies to detect and respond to criminal activities quickly when using surveillance technologies, digital communications, crime tracking, and public reporting. It was also revealed that the use of ICT has significantly contributed to the coordination and communication between the various police agencies involved in the process of sharing information, collaborating, providing timely responses during emergencies and communicating with the public. However, inadequate funding, unstable electricity supply, poor internet connectivity, inadequate ICT training for security personnel, and weak integration of ICT systems across law enforcement agencies were identified as major constraints limiting the effective utilisation of ICT for crime management. Regression results further indicated that these challenges have a significant negative effect on crime management. The study concluded that ICT is an indispensable tool for effective crime management in Delta State. It therefore recommended that the government should increase investment in ICT infrastructure, provide continuous capacity building for security personnel, improve inter-agency integration of ICT systems, and strengthen policy support to maximise the benefits of ICT in combating crime and enhancing public safety.

Keywords*:* E-administration, e-governance, crime management, ICT, Delta State

Introduction

Crimes and illegal activities have pervaded all countries of the world and are a problem in modern society. The average person has to come to terms with the fact that there are crimes everywhere, that they have to figure out how to deal with the massive population, and that anyone can be a victim. Although there is increasing recognition around the world of the vital role played by Information and Communication Technologies (ICTs) in modern crime prevention and management, there are indications that this role is not effectively fulfilled in the European Union. The implementation in Nigeria, especially in Delta State, is not consistent and developed. Although some ICT-related security measures such as drone surveillance, automated fingerprint identification system, CCTV installation, and digital crime record system were implemented between 2020 and 2025, there is little evidence of their full integration into law enforcement's daily work. Delta State, with its high crime statistics, poses a threat to both its citizens and its businesses, economic development and community safety (Eze & Okoro, 2022). The security services have invested in several ICT applications, hoping that technology will help reduce the rate of crime and enhance the effectiveness of police work; however, available evidence shows that a lot of these measures are reactive instead of proactive (Akanbi, 2020). A major problem is the lack of institutional support, training of officers and irregular power supply, which leads to the neglect or poor maintenance of the ICT systems by the state (Nwankwo, 2019). Moreover, some crime reporting systems are completely paper-based, or partially paper-based, thus leading to slow retrieval and storage of crime data (Okafor & Abiola, 2023).

Okon and Ekanem (2021) report that most of the security agencies in Nigeria use traditional methods of crime detection that are time-consuming, prone to errors and often ineffective in combating the modern types of crime. Delta State, for example, faces some complex and evolving security challenges such as cybercrime, kidnapping, illegal oil bunkering, armed robbery, cultism, communal conflicts and youth-related violence. Many state security organisations are challenged to gather intelligence and respond rapidly due to the complexity of these offences. According to Obaro & Ogheneovo (2022), criminals in Delta State are increasingly exploiting digital platforms for financial crimes and communications, but law enforcement agencies are yet to possess the technological capacity to track electronic footprints, monitor electronic devices, and intercept encrypted communication channels. The Nigerian government spent millions of dollars on equipment and logistics to combat violent crimes. Unfortunately, these efforts did not generate the desired outcomes. To effectively combat today's crimes, the government must recognise that physical combat alone is insufficient. Instead, a scientific approach utilising high-tech equipment for intelligence gathering and forensics can supplement physical combat for success. Similarly, ineffective tracking and surveillance systems result in crimes that could have been stopped in their tracks, going entirely unnoticed. For example, high-profile murder cases have not been solved because there are fewer databases, surveillance, tracking, or forensic techniques available to support the investigations. This has the overwhelming impact of making society extremely insecure, severely crippling the economy. Foreign investors are deterred from investing in the nation because they are unable to commit to an unstable environment. This is due to the fact that the majority of international investors rely on security reports from the commercial desks of their nation's diplomatic missions, while a few others get information from local business owners in similar industries. The lack of other ICT infrastructure is also a problem. Constant problems like power shortages, limited internet connectivity, poor maintenance programmes and lack of modern technology are being faced. Surveillance technology also hurts security agency performance.

The lack of robust technological capabilities affects intelligence collection and hampers cooperation between agencies in conducting security operations (Efe & Arumoh, 2020). Many officers do not have the technical skills and training to effectively apply ICT tools even when

they have access to them. Lack of data management protocols in the security sector has also been a concern. Criminal records are not consistently digitised and not up to date, making it difficult to determine criminal trends, to profile criminals, or to communicate data between agencies. Fragmented data systems have been identified as having vulnerabilities that can be exploited by criminals and are restrictive of space (Duru & Okechukwu 2023). Governments have been unable to invest enough to support the integration of ICTs into crime management systems; bureaucracy has shown resistance to the implementation of ICTs; and corruption has been a problem. Taking into consideration these challenges, it remains doubtful whether ICTs have been a major factor in the achievement of the outcomes of crime management in Delta State during the period under assessment. Improvements are claimed by the government and security services, but no empirical evidence is found, and the actual effect of these technologies on crime detection, prevention and reduction can hardly be predicted. The gap should be filled by examining how ICT-based crime management techniques are deployed and used, and the challenges in Delta State from 2020 to 2025.

Objective of the Study

1. Analyse the contribution of ICT in the improvement of crime detection and prevention in Delta State, 2020- 2025
2. Evaluate the success of ICT in improving coordination and communication among law enforcement agencies in Delta State
3. Explore the issues faced by law enforcement agencies in the adoption and application of ICT for crime control in Delta State

Literature Review

Information and Communication Technology (ICT)

Information and communication technology, also referred to as ICT, refers to the gathering of technological instruments and systems utilised for the generation, preservation, processing, and transfer of information. According to UNESCO (2021), ICT covers devices, smartphones, internet access, internet connections, software programs, files, as well as online services which allow the exchange of information and connection. ICT also encompasses analogue devices, such as written communication, and any medium that sends messages. Adeyemi and Lawal (2023) define ICT as technology that promotes quick exchange of information, organising data, and decision-making among enterprises. They underline that ICT boosts performance by combining traditional and written processes with electronic operations.

In the private security sector, ICT plays a key role by facilitating surveillance, knowledge collection, data storage, and interactions among law enforcement organisations. Innovations like Closed-Circuit Television (CCTV), fingerprinting, digital radio transmission, criminal databases, and smartphone reporting devices have become popular in present-day policing (Akinwale, 2024). In Nigeria, the use of ICT has grown due to modernisation policies and the frequent use of mobile technology. In Delta State, Nigeria, information and communication technologies have been introduced in investigations, notably in major cities like Asaba, Warri, Ughelli, and Sapele. These tools enable police operations, including security planning, criminal detection, and tracking of general locations. ICT refers to all electronic devices utilised by security force organisations in Delta State to promote criminal activity identification, reduction, cooperation, and interaction between 2020 and 2025.

Crime

Crime is an important concept in the study of its management because it provides an understanding of the unlawful activities that threaten the safety, security and peaceful coexistence of individuals in society. Generally, crime refers to an act or omission that violates an existing law and attracts legal punishment. The definition of crime is closely connected to

the laws and regulations established by the state to guide human behaviour and maintain social order.

According to Chaudhary and Siddiqui (2023), crime involves wrongful acts or conduct prohibited by the law in force at a particular time and place. They explain that individuals who engage in such prohibited conduct may be subjected to legal penalties. Similarly, Ihua-Maduenyi (2022), in his discussion of crime, criminals and the law in Nigeria, explains that criminal activities are governed by established laws and that different forms of criminal conduct have corresponding legal consequences.

Crime can take different forms, including violent crimes, property-related crimes, economic crimes and offences against public security. These include kidnapping, armed robbery, cultism, murder, theft, cybercrime, fraud and other unlawful activities. Such criminal activities can threaten human lives, damage property, discourage economic activities and create insecurity within communities.

This study examines crime, which refers to unlawful activities that threaten the safety, security and peaceful existence of people in Delta State, particularly between 2020 and 2025. These activities include kidnapping, armed robbery, cultism, violent attacks, oil-related crimes and other security threats. Understanding the concept of crime is important to this research because it establishes the basis for examining how Information and Communication Technology can assist security agencies in identifying criminal activities, gathering intelligence, improving surveillance, detecting offenders and strengthening crime prevention and management in Delta State.

Crime Prevention

Crime prevention involves preventive measures used to limit the rate of crime just before it happens. As stated by Akanbi (2020), crime prevention encompasses methods aimed at preventing criminal conduct through monitoring, patrols, community participation, and prevention measures. Cohen & Felson (1979) indicate that preventing crime involves decreasing chances of criminal activity through boosting the danger of detection and decreasing the rewards for unlawful conduct. ICT plays a vital role in today's crime prevention through the provision of continuous surveillance as well as early warning systems.

ICT-based crime prevention techniques include security cameras, crime reporting technologies, emergency response services, and public alert systems. These tools assist law enforcement organizations detect crime hotspots and distribute resources carefully (Akinwale, 2024). In Delta State, ICT plays a part in crime prevention through surveillance of important routes, government agencies, and oil sites. The installation of CCTV cameras and enhanced communication systems has contributed to the prevention of criminal activity in certain urban locales. However, crime prevention programs are limited in locations with low electrical supply, little internet access, and insufficient technical coverage.

Information and Communication Technology (ICT) and Crime

Information and Communication Technology (ICT) has become part of everyday life, changing how people communicate, exchange information and carry out different activities. However, its development has also affected the way crime occurs in society. With the use of mobile phones, computers and internet services, criminal activities are no longer limited to physical contact between offenders and their victims. Some individuals now use technology to engage in activities such as internet fraud, identity theft, hacking, cyberstalking and financial scams. Lusthaus (2024) explains that cybercrime involves criminal activities in which digital technology plays an important role. This shows that technology has become closely connected to the changing nature of crime. Chandra and Snowe (2020) also explain that computer technology can be used as a means of committing criminal offences. This means that some crimes depend directly on digital technology, while others are traditional offences that have

simply been made easier through its use. For example, fraud that was previously carried out through face-to-face dealings can now be committed through online platforms and electronic transactions. In this way, ICT has provided criminals with new opportunities to carry out unlawful activities, sometimes across different locations without being physically present.

However, technology is not only useful to criminals. It also provides security agencies with different tools for handling criminal activities. CCTV cameras, fingerprint identification systems, digital databases, mobile communication devices and other technological facilities can help security personnel monitor public places, identify suspects and obtain information during investigations. Bowers and Johnson (2024) explain that although technological developments can create new opportunities for crime, they can also provide ways of reducing criminal activities and improving public safety. This shows that the same technology that may be misused by criminals can also be useful in protecting society.

Another important aspect of ICT and crime is the use of digital information during criminal investigations. The National Institute of Justice (2020) explains that electronic devices such as mobile phones, computers, GPS equipment and cameras may contain information that can serve as evidence in criminal cases. Such information can help investigators understand how an offence was committed and establish connections between suspects and criminal activities. This makes ICT useful not only in monitoring crime but also in the investigation and proper documentation of criminal cases. Curtis and Oxburgh (2023) also explain that cybercrime presents challenges to law enforcement agencies because some officers lack the necessary knowledge and skills to investigate technology-related offences. This suggests that having technological facilities alone is not enough. Security personnel must also understand how to use them properly, interpret digital information and respond to different forms of criminal activities.

In Nigeria, the relationship between ICT and crime is important because security agencies continue to face different forms of criminal activities. The use of technology can support the gathering of intelligence, communication among security personnel, identification of suspects and monitoring of suspicious activities. Dupont and Whelan (2021) explain that cybercrime and cybersecurity are closely connected because efforts to protect digital systems and information are also part of the wider responsibility of preventing and controlling crime. In Delta State, the importance of ICT in relation to crime cannot be overlooked. The state faces security concerns such as kidnapping, armed robbery, cultism, violent activities and petroleum-related crimes. The use of CCTV cameras, digital communication systems, criminal databases and mobile reporting devices can assist security agencies in monitoring activities and responding to security threats. However, inadequate funding, poor electricity supply, limited internet access and insufficient technical knowledge may affect the effective use of these facilities, particularly in some rural and riverine communities.

It is clear that ICT has both positive and negative effects on crime. While some individuals use technology to commit criminal offences, security agencies can also use it to monitor activities, gather information and investigate criminal cases. Therefore, the issue is not simply the availability of technology but how well it is used to address criminal activities. This makes ICT an important concept in understanding crime and the efforts made to manage it in Delta State between 2020 and 2025.

ICT and Crime Prevention

The use of information and communication technology (ICT) in almost every aspect of daily life has given rise to the term information society Adediran et al., 2023). ICT for development is widely used in a variety of fields, including education, construction, automobiles, the media in particular, health, policing, hospitality, agriculture, and transportation. ICT is used not just to progress society; it also serves as a formidable platform for criminal activity and the spread of social vices. In fact, Akah (2024) argue that the modern strategy for criminality has

abandoned the conventional structure in favour of something more scientific. As a result, preventing these illicit acts requires a strong and scientific strategy. In many communities around the world, particularly in emerging countries, the spread of crime poses a threat to the safety of people and property. In Nigeria, for example, primary security concerns include kidnapping, armed robbery, religious crises, instability in politics, rebellion, rituals and cultism, and official corruption. ICT is used to commit a wide range of crimes, and its use can be successful in preventing these illicit activities.

According to Ariel et al. (2022), advanced software and hardware have made it easier for criminals to commit crimes. Ebisike (2024) states that criminal acts include murderous assaults, abduction, arson, planned armed robbery, destruction, ritual acts, and financial crimes. Given that surveillance is a major job of the police in every country, this study believes it is vital to devote some attention to studying CCTV, which is an ICT tool with an embedded security monitoring mechanism. The placement of CCTV in some strategic locations "can activate a perceptual process in a potential offender that if he commits a crime, he will be caught" (Ratcliffe & Rosenthal, 2021). As a result, CCTV can increase the perceived danger of capture, leading to deterrence. CCTV has played an important role in identifying suspects and supporting investigations. For instance, following the Charlie Hebdo terrorist attack in Paris, France, on January 17, 2015, investigators used video footage and other forensic evidence to trace and identify the attackers, leading to 12 deaths and 11 injuries (ABC News, 2015). It was also used to identify the culprits responsible for the Boston Marathon Bombing on Boylston Street in the United States. Allas (2025) observe that "Technological devices may produce self-discipline through fear of surveillance, whether real or imagined." Similar to CCTV, the Global Positioning System (GPS) tracker is an ICT tool that can determine the precise location of any object on Earth's surface; a radio helicopter pilot can use it to find a person's position/location in an emergency; it can be worn on the hand; it can be installed in buildings, mobile systems, pathways, etc. GTTAC (2025) add that powerful GPS tracking systems and satellite data can actively follow the whereabouts of this insurgent group, supporting regional military operations, even if the Boko Haram rebel group still uses the deep areas of the Sambisa woodland in Borno State to carry out operations. Since crimes are now digital, police, especially in third-world countries, must adopt these technologies to undertake efficient policing. This is crucial because advanced information technologies enable the development, storage, retrieval, transfer, and application of research data (Robert 2024). Criminals may commit any crime with superior software and gear. In general, crimes have moved online.

As criminals increase the use of modern technology to commit crimes, security agencies adopt advanced ICT tools to solve emerging threats. Ekwunife et al. (2020) explain that traditional policing methods are no longer sufficient to address sophisticated criminal activities. Nigeria Police Force needs modern technology, good equipment and proper training to improve crime prevention, detection and investigation. The role of policing cannot be overemphasised, as it makes the fight against crime more precise, with greater results, more cost-effective strategies and in a timely manner. This is most necessary since in many situations, the wrong persons are arrested by the police. Sometimes, a lack of substantial evidence is experienced, and the time delay involved in the old method of investigation enables the culprit to escape. Generally, no part of the world can tackle crime effectively without updated, accurate and timely data; and this can only be made possible by ICT such as CCTV.

In respect to biometrics and policing, Nigeria Army Resource Centre (2025) reveals that deoxyribonucleic acid isolated from blood, hair, skin cells, or other genetic evidence left at the scene of crime has helped in apprehending criminals when matched with databases. The days are gone when individuals are identified by just names and photo ID without biometrics. To all intents and purposes, attempts to manage and control crime in a population of over 200 million people, without a working national criminal and biometric database

which contains fingerprints and DNA, will be an effort in futility. With an adequate database, this can be linked to a government terrorist watch list for effective policing. It is expedient that persons carrying firearms should register with the police, and this would be stored in the firearm databases to criminalise unregistered firearms.

It therefore becomes easy to track down a crime by the bullet and firearm used in the operation since there is a record in the database. In North America, for example, criminals have been caught using DNA swabs from discarded orange juice bottles in the trash bin, shoes and car tyre marks found at the crime scene. To fight terror and crime today, the Nigerian Police Force is switching to a biometric motor registry. Sanusi (2022) observes that this digital system specifically offers baseline data to promote digital crime-fighting approaches, allowing the police to track suspect profiles with a portable machine instead of manually examining vehicle details. Also, "the introduction of the Biometric Central Motor Registration system (BCMR) is against the backdrop of contemporary security challenges bordering on terrorism, high incidence of car theft, kidnapping and other crimes". This is in line with the biometric and forensic approach to investigation, which this study focuses on. Looking at the use of Biometrics and CCTV, for example, a power supply is necessary. Aside from the police, many organisations that rely on biometric machines for records of attendance and punctuality have had to face the challenge of poor power supply. In Nigeria, this is seemingly an insurmountable problem where even power distribution offices rely on generators for electricity.

Undoubtedly, the Nigerian police has the challenge of human resource development in the use of ICT to detect crime (Akah 2024). These researchers note that Nigeria is in the spotlight of the international community for its participation in cybercrime, with advanced indicators like the World Cybercrime Index (2024). In the training of police officers for crime detection, the researchers under review point out that the Nigerian Police Force does not consider the needs of the force in specific tasks and expertise. After training, specific skills are not matched with deployment. There is also proof that the Nigerian Police is not well equipped with new technologies. This is evident considering criminals who use ICTs to intercept communication, hide their identities and operate anonymously.

Theoretical Orientation

This paper is based on the routine activity theory, which offers a solid explanation for the connection between the use of information and communication technology (ICT) and crime management. The theory was first propounded by Marcus Felson and Lawrence E. Cohen in their overview of crime reductions in the United States between 1947 and 1974. The concept has been widely used and has grown into one of the most well-known theories in criminology. Unlike criminological views of criminal behaviour, routine activity theory examines criminal activity as an event that strongly connects crime to its surroundings and highlights its environmental process, thus shifting research focus away from mere offenders. The idea was designed to explain crime incidence by emphasising everyday conduct and environmental variables instead of individual criminal reasons alone. According to Cohen and Felson (1979), crime takes place when the following factors meet in time and space: a motivated offender, a suitable target, and the absence of a capable guardian. Unlike previous criminological theories that highlight mental or social reasons for criminal conduct, Routine Activity Theory points out actual conditions that provide possibilities for crime. Motivated offenders are those who are not just capable of carrying out criminal activity, but also willing to do so. This aspect gained the most criticism because of the absence of information surrounding what it actually meant. A motivated offender is anyone who really wants to hurt someone or damage property. But the motivated offender must be someone who can commit the crime, meaning they have all they need to do so, both physically and mentally.

Information and communication technology (ICT) devices such as cameras installed for electronic surveillance in metropolitan areas, mobile emergency notification systems and

planning tools for rapid response act as powerful guardians in Delta State. These devices help to enhance visibility, deter potential offenders, and boost the effectiveness of law enforcement. However, in regions with limited ICT infrastructure, particularly rural and riverine regions, there is limited oversight. This explains why crime occurs in certain sections of Delta State regardless of the availability of security agencies. The imbalance between modern technology and environmental needs indicates that guardianship is most successful when ICT instruments are well-supported by steady power, networking infrastructure, and skilled staff (Onifade & Umahi, 2022). Routine Activity Theory's postulate regarding competent guardianship is confirmed: the stronger and more consistent the guardianship, including technical methods, the smaller the potential for crime.

The theory is suitable for this study because it focuses on how crime can be prevented through monitoring, surveillance, and guardianship. Routine activity theory is a branch of criminal opportunity theory that looks at the circumstances surrounding crimes

Methodology

The method of this research was a descriptive methodological framework; the type of research was an inferential statistical analysis. Given that the goal of the study is to explain the extent of ICT use in the management of crime and the extent to which ICT variables affect the effectiveness of detection, prevention, coordination, and communication in Delta State crime management between 2020 and 2025, the explanatory design was most suitable.

The study's demographic includes all inhabitants of Delta State, together with the security institutions functioning within the state. In the 2006 national census, Delta State's population was 4,112,445 people, according to the National Population Commission (NPC). However, based on demographic authorities' expected annual growth rates, Delta State's current population as of 2024–2025 is estimated at around 6.8 million.

In addition to becoming sources of crime reporting and digital participation, residents also benefit from ICT-based security measures. The population is represented in the table below:

Table 1: Delta State Senatorial Districts

Senatorial District	LGAs	Estimated Population
Delta Central	Ethiope East, Ethiope West, Sapele, Okpe, Ughelli North, Ughelli South, Udu, Uvwie	2,633,152
Delta North	Aniocha North, Aniocha South, Ika South, Ika North, Ndokwa East, Ndokwa West, Oshimili North, Oshimili South, Ukwuani	2,073,254
Delta South	Bomadi, Burutu, Isoko North, Isoko South, Patani, Warri South, Warri North, Warri South West	2,187,0844
Total (Delta State)		6,893,490

Source: Author's computation from Delta State Government, Ministry of Economic Planning (2025).

The sample size was determined using Cochran's (1977) formula for a large or infinite population, resulting in a sample size of 400**.** Both primary and secondary data collection methods were used to gain comprehensive and trustworthy information on the role of

Information and Communication Technology (ICT) in crime management in Delta State between 2020 and 2025.

Data were mainly collected using a structured questionnaire. The questions address the main objectives of the study, such as the extent of ICT use, challenges of using ICTs, the effectiveness of ICTs in crime detection and prevention, and ICTs' role in coordination and communication among law enforcement agencies. Data collected were coded and analysed using descriptive and inferential statistics. The items responded to in the survey were subsequently recoded as numbers from Strongly Agree = 4, Agree = 3, Disagree = 2, and Strongly Disagree = 1 for quantitative analysis. The coded data were loaded using statistical software for correct computation. Descriptive statistics like frequency tables, percentages, mean scores and standard deviations were used to consolidate the views of the respondents regarding the use of ICTs, crime detection, coordination and problems in Delta State. These tools were helpful in analysing patterns and trends in the data.

Simple Linear Regression method was employed to test the research hypotheses and to find out the relationship between ICT and crime management. This approach examined the level at which the ICT variables (ICT and crime detection, crime prevention, challenges faced in the use of ICT, coordination and communication through ICT) influence crime management. Overall, the use of the results of descriptive and inferential statistics revealed that the study findings were unbiased and accurate.

Presentation of Data and Analysis

This section shows the data collected from respondents on the role of information and communication technology (ICT) in crime management in Delta State from 2020-2025. This presentation is based on responses from completed and returned questionnaires.

Table 2: Number of Questionnaires Given and Responses

Items	Frequency	Percentage%
Valid	380	90.48
Invalid	40	9.52
Total	420	100

Source: Authors' fieldwork (2026)

The distribution of questionnaires administered and responses received for the study is given in Table 2. A total of 420 questionnaires were distributed, with an additional 20 questionnaires to accommodate possible invalid responses. Out of the 420 questionnaires distributed, 380 questionnaires were returned and were found to be complete and were used in the analysis of the data which constituted 90.48% of the questionnaires distributed. 40 questionnaires (9.52%) were, however, invalid because of incompleteness, missing information, or not being filled out and returned in an acceptable format.

The valid response rate of 90.48% shows that the respondents participated in the survey with a high response rate, enabling a satisfactory analysis of the data. To ensure that only complete and reliable responses were used, the questionnaires that were found to be invalid were excluded from the study, which helped to improve the accuracy and credibility of the study's findings.

Demographic Information

Table 3: Gender

Sex	Frequency	Percentage%
Male	152	40
Female	228	60
Total	**380**	**100**

Source**:** Authors' Fieldwork (2026).

Table 3 shows that the male and female respondents are distributed equally. A total of 380 respondents were obtained; 60% (228) were females, and 40% (152) were males. This means that the majority of the respondents were females. However, the distribution indicates that the opinion voiced in the study was more strongly reflected in females than in males, but it is also well balanced between males and females.

Table 4: Age Range

Age Range	Frequency	Percentage (%)
18–25	110	28.9
26–35	102	26.8
36–45	83	21.8
46+	85	22.4
Total	380	100.0

Source: Authors' Fieldwork (2026)

Table 4 shows the distribution of respondents according to their age group. The results show that 110 respondents (28.9%) belonged to the age group 18-25 years which was the biggest age group. The next category was for ages 26–35 years, with 102 participants (26.8%). Moreover, 85 respondents were 46 years and above, and 83 respondents were in the age group of 36-45 years. The results reveal that the subjects' age groups were represented in the study, with a higher number of younger adults (18-25 years).

Table 5: Occupation

Occupation	Frequency	Percentage (%)
Civilian	95	25.0
Public Officer	68	17.9
Police Officer	76	20.0
Civil Defence Officer	55	14.5
Military Personnel	31	8.2
Vigilante Member	55	14.5
Total	380	100.0

Source: Authors' Fieldwork (2026)

Table 5 shows the occupational distribution of the respondents. The results indicate that the largest number of respondents (95, 25.0) were civilians. Police officers comprised 76 (20.0%); public officers were 68 (17.9%). Fifty-five respondents (14.5%) were also Civil Defence officers and vigilantes. The smallest group (31 respondents, 8.2%) were military personnel. The distribution shows that the study received responses from members of the public and different security agencies, thus giving a wide view of the use of ICT in the management of crime in Delta State.

Table 6: Location of Respondents

Location	Frequency	Percentage (%)
Urban Area	205	53.9
Rural Area	115	30.3
Riverine Area	60	15.8
Total	380	100.0

Source: Authors' Fieldwork (2026)

Table 6 shows the distribution of respondents by their location. The results indicate that the largest number of respondents live in urban areas (205, 53.9%). This was followed by 115 respondents (30.3%) from the rural areas and 60 respondents (15.8%) from the riverine areas. The results showed that most of the respondents came from the urban community, and a few were also taken from the rural and riverine communities, giving a wide cross-section from various places in the State regarding the issues of ICT and crime management.

Table 7: Working Experience of Respondents

Experience (Years)	Frequency	Percentage (%)
1–5	100	26.3
6–10	105	27.6
11+	175	46.1
Total	380	100.0

Source: Author's Fieldwork (2026)

The distribution of respondents, by years of work experience, is shown in Table 7. The results indicate that 175 (46.1%) respondents were working for 11 years and above, which was the largest amount of experience. This was followed by 105 respondents (27.6%) with 6–10 years of experience, while 100 respondents (26.3%) had 1–5 years of working experience. The results suggest that the majority of respondents possessed substantial work experience, indicating that their responses were likely informed by considerable practical knowledge and experience related to crime management and the use of ICT.

Table 8: ICT and Crime Detection and Prevention N = 380)

Statement	SA n(%)	A n(%)	D n(%)	SD n(%)	Mean
ICT tools have increased the success rate of crime detection between 2020 and 2025.	110 (28.9)	180 (47.4)	50 (13.2)	40 (10.5)	2.95
Security agencies in Delta State use ICT equipment to track criminal activities.	95 (25.0)	175 (46.1)	65 (17.1)	45 (11.8)	2.84
ICT has reduced the time taken to identify suspects.	105 (27.6)	170 (44.7)	60 (15.8)	45 (11.8)	2.88
Public reporting through mobile phones and social media helps prevent crimes.	100 (26.3)	165 (43.4)	70 (18.4)	45 (11.8)	2.84
Surveillance technology improves crime monitoring.	120 (31.6)	160 (42.1)	60 (15.8)	40 (10.5)	2.95
Average	106 (27.9)	170 (44.7)	61 (16.1)	43 (11.3)	2.89

Source: Authors' fieldwork (2026)

Table 8 presents respondents' perceptions of the role of ICT in enhancing crime detection and prevention in Delta State between 2020 and 2025. The findings indicate a positive perception of ICT as an effective tool for combating crime, as all the statements recorded mean scores above the decision benchmark of 2.50.

The results show that respondents generally agreed that ICT has strengthened crime detection and prevention efforts in the state. A majority of the respondents agreed that ICT tools have increased the success rate of crime detection (Mean = 2.95) and that surveillance technology has improved crime monitoring (Mean = 2.95), making these the highest-rated statements in the table. This indicates that respondents believe surveillance systems and other ICTs are valuable tools to assist law enforcement and enhance security results. The participants also indicated that ICT has shortened the time it takes to identify suspects (Mean = 2.88),

demonstrating the positive impact of technological advancements on the speed and efficiency of criminal investigations. Likewise, they agreed that security agencies use ICT equipment to trace crimes (Mean = 2.84) and that public reporting by means of mobile phones and social media plays a role in preventing crime (Mean = 2.84). The results suggest improvements in the use of ICTs by institutions and in people's engagement in public participation via digital communication platforms, with respect to crime.
management in Delta State.

The mean scores of the statements as a whole range from 2.84 to 2.95, with a mean score of 2.89. This suggests that, overall, respondents feel that ICT has made a significant contribution to the improvement of crime detection, the enhanced capability of surveillance and monitoring, the quicker resolution of the crime situation, and the increased capacity to apprehend criminals, identify suspects, and support collaborative crime prevention efforts in Delta State between 2020 and 2025. The results indicated, therefore, that ICT has contributed to the management of crime in the study area.

Table 9: Challenges Faced in the Use of ICT (N = 380)

Statement	SA n(%)	A n(%)	D n(%)	SD n(%)	Mean
Inadequate funding limits ICT implementation in Delta State.	145 (38.2)	155 (40.8)	45 (11.8)	35 (9.2)	3.08
ICT systems used by different agencies are not fully integrated.	110 (28.9)	175 (46.1)	55 (14.5)	40 (10.5)	2.93
Poor power supply affects ICT performance in crime management.	150 (39.5)	145 (38.2)	45 (11.8)	40 (10.5)	3.07
Poor internet connectivity affects digital communication.	140 (36.8)	150 (39.5)	50 (13.2)	40 (10.5)	3.03
Security personnel lack adequate ICT training.	135 (35.5)	160 (42.1)	50 (13.2)	35 (9.2)	3.04
Average	136 (35.8)	157 (41.3)	49 (12.9)	38 (10.0)	3.03

Source: Authors' Fieldwork (2026)

Table 9 shows the respondents' perceptions of challenges that face the adoption and use of ICT in crime management in Delta State. The results showed that most of the statements on the constraints affecting the use of ICT have mean scores above the decision benchmark of 2.50, indicating that generally the respondents agree that there are several constraints affecting the effective use of ICT.

The results indicate that poor funding appeared to be the most challenging problem for the implementation of ICT in the schools (Mean = 3.08), followed by weak power supply that affects the performance of ICT in the school to tackle crime in society (Mean = 3.07). It was also discovered that the security personnel are not properly trained in ICT (Mean = 3.04) and that poor internet connectivity had an impact on digital communication (Mean = 3.09). In addition, they indicated that ICT systems of various law enforcement agencies are not completely integrated (Mean = 2.93), meaning that there is some lack of interoperability between security agencies, which affects the ability to coordinate and share information.

The overall mean scores of the statements recorded are in the range between 2.93 and 3.08, with an average of 3.03. This means that the respondents feel that lack of funding, lack of reliable power supply, poor internet connectivity, lack of adequate ICT training and weak system integration are key factors that constrain the effective use of ICT for crime management in Delta State. The findings indicate that the challenges need to be addressed so as to enhance the efficiency and effectiveness of ICT-based crime management in the state.

Table 10: Coordination and Communication Through ICT (N = 380)

Statement	SA n(%)	A n(%)	D n(%)	SD n(%)	Mean
There is effective information sharing among Security agencies and tools on ICT platforms.	120 (31.6)	165 (43.4)	55 (14.5)	40 (10.5)	2.96
ICT creates a solid base for partnership working. Decisions will be made in consultation with security agencies and the public.	130 (34.2)	160 (42.1)	50 (13.2)	40 (10.5)	3.00
ICT has helped in minimising delays for joint security operations.	115 (30.3)	170 (44.7)	55 (14.5)	40 (10.5)	2.95
Digital radio systems enhance coordinated response to emergencies.	125 (32.9)	165 (43.4)	50 (13.2)	40 (10.5)	2.99
ICT enhances communication between security agencies in Delta State.	120 (31.6)	170 (44.7)	50 (13.2)	40 (10.5)	2.97
Average	122 (32.1)	166 (43.7)	52 (13.7)	40 (10.5)	2.97

Source: Author's Fieldwork (2026**)**

Table 10 looks at the perception of the respondents on the use of ICT to improve the coordination and communication among security agencies in Delta State. The results indicate that, in general, the respondents have agreed that ICT has improved collaboration and information sharing, because all the statements have a mean score greater than the decision benchmark of 2.50.

The findings show that participants had the highest level of satisfaction with ICTs enhancing collaboration between security agencies and the public (Mean = 3.00), underscoring the need to move towards community engagement in security matters through the use of technology. Respondents also agreed that digital radio systems enhance coordinated emergency responses (Mean = 2.99) and that ICT improves communication among security agencies in Delta State (Mean = 2.97). They agreed that ICT helps to share information effectively among the security agencies (Mean = 2.96) and ICT helps in minimising delays in joint security operations (Mean = 2.95), indicating that ICT has enhanced operational efficiency and inter-agency collaboration.

Overall, the statements had mean scores between 2.95 and 3.00 and a mean score of 2.97. This means that the respondents believe that ICT is a good instrument to use for improving communication, collaboration, timely information sharing and security operation coordination in Delta State. The results indicate that ICT is now playing an integral role in crime management and crisis response in the state.

Table 11: Crime Management (N = 380)

Statement	SA n (%)	A n (%)	D n (%)	SD n (%)	Mean
The overall use of ICT has been enhanced. Effectiveness of crime management in Delta State	182 (47.9)	126 (33.2)	46 (12.1)	26 (6.8)	3.22
ICT has helped the capacity of the law to implement the prompt response of enforcement agencies.	169 (44.5)	134 (35.3)	52 (13.7)	25 (6.6)	3.18
The introduction of ICT has helped to bring about a drop in the rate of crime in Delta State.	154 (40.5)	140 (36.8)	61 (16.1)	25 (6.6)	3.11
ICT has enhanced the investigation, monitoring, and tracking of criminal activities in Delta State.	176 (46.3)	128 (33.7)	50 (13.2)	26 (6.8)	3.19
Overall, ICT has provided a marked improvement in skills and abilities. The efforts by Delta State to manage crime.	181 (47.6)	123 (32.4)	49 (12.9)	27 (7.1)	3.20
Average	172 (45.4)	130 (34.3)	52 (13.6)	26 (6.8)	3.18

Source: Author's Fieldwork (2026)

Table 11 shows the perception of the respondents regarding the role of ICT in crime control in Delta State. The results indicate a high positive rating of the role of ICT in crime management, since the decision benchmarks for all these statements were set at 2.50, and in this regard, the results obtained were above this threshold.

The results show that the use of ICT has enhanced the overall effectiveness of crime management in Delta State, with the highest mean rating of 3.22. They further agreed that the use of ICT has enhanced the investigation, monitoring and tracking of crime activities (Mean = 3.19) and crime management efforts in the state (Mean = 3.20). Moreover, the study respondents concurred that ICT has improved the law enforcement agencies' prompt response to crime incidents (Mean = 3.18) and has helped to reduce criminal activities (Mean = 3.11). The results indicate the positive contribution of ICT to the response time of security agencies, to the investigative processes and to the effectiveness of their operations and crime monitoring. The overall mean score of the statements recorded was 3.18, with a range of 3.11 to 3.22. This shows that respondents are in general agreement that ICT has contributed to the management of crime in Delta State in a good way in terms of effective law enforcement, effective crime control, and efficient prevention, investigation and response to crime.

Hypothesis Test

Hypothesis (1): H_{01}: ICT has no significant effect on crime detection and prevention in Delta State.

Model 1: ICT and Crime Detection and Prevention caption$CDP = \beta_0 + \beta_1 ICT + \varepsilon x$Where:

- CDP= Crime Detection and Prevention
- ICT= Information and Communication Technology (Challenges Faced in the Use of ICT)

Table 13: Simple Regression Analysis

Dependent Variable: CDP

Model	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.
(Constant)	3.359	.269		12.487	.000
ICT	.310	.023	.500	13.478	.000

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.500a	.250	.247	.3770

Source: Author's Fieldwork (2026)

The regression results in Table 13 show that Information and Communication Technology (ICT) has a positive and statistically significant effect on crime detection and prevention (B = 0.310, β = 0.500, t = 13.478, p = 0.000). Since the p-value (0.000) is less than the 0.05 level of significance, the null hypothesis is rejected. Therefore, ICT has a significant positive effect on crime detection and prevention in Delta State between 2020 and 2025.

Hypothesis (2): H_{02}: ICT has no significant effect on coordination and communication among law enforcement agencies in Delta State. ordinat=$CC = \beta_0 + \beta_1 ICT + \varepsilon$
Where:

- CC= Coordination and Communication among law enforcement agencies
- ICT= Information and Communication Technology (Challenges Faced in the Use of ICT)

Table 14: Simple Regression Analysis

Dependent Variable: CC

Model	Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.
(Constant)	3.259	.219		14.881	.000
ICT	.312	.043	.600	7.256	.000

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.600a	.360	.358	.3770

Source: Author's Fieldwork (2026)

The regression results in Table 4.11 show that Information and Communication Technology (ICT) has a positive and statistically significant effect on coordination and communication among law enforcement agencies (B = 0.312, β = 0.600, t = 7.256, p = 0.000). Since the p-value (0.000) is less than the 0.05 level of significance, the null hypothesis is rejected. Therefore, ICT has a significant positive effect on coordination and communication among law enforcement agencies in Delta State.

Hypothesis (3): H_{03}: Challenges associated with the adoption and utilisation of ICT have no significant effect on crime management in Delta State.
3: ICT and Crime Management: $CM = \beta_0 + \beta_1 ICT + \varepsilon x$Where:

- CM= Crime Management
- ICT= Information and Communication Technology (Challenges Faced in the Use of ICT)

Table 15: Simple Regression Analysis

Dependent Variable: CM

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**T**	**Sig.**
(Constant)	3.374	.268		12.590	.000
ICT	-.510	.023	-.510	-22.174	.000

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.510a	.260	.256	.3770

Source: Author's Fieldwork (2026)

The regression results in Table 4.12 show that Information and Communication Technology (ICT), measured by the challenges faced in the use of ICT, has a negative and statistically significant effect on crime management ($B = -0.510$, $\beta = -0.510$, $t = -22.174$, $p = 0.000$). Since the p-value (0.000) is less than the 0.05 level of significance, the null hypothesis is rejected. Therefore, challenges associated with the adoption and utilisation of ICT have a significant negative effect on crime management in Delta State.

Discussion of Findings

This section discusses the findings of the study in relation to the research objectives, hypotheses, and existing empirical literature. The discussion highlights areas where the findings support previous studies and where they differ, while providing explanations for the observed results.

ICT and Crime Detection and Prevention

The study found that Information and Communication Technology (ICT) has a positive and significant effect on crime detection and prevention in Delta State. This means that the use of ICT tools like surveillance systems, biometric technologies, digital databases, mobile phones, and other forms of communication has been promoted. The development of communication networks and crime tracking has improved the ability of security agencies to detect, monitor, investigate and prevent criminal activities. This finding substantiates the Technology Acceptance viewpoint, which suggests that successful implementation of technology improves the performance of an organisation and its operations. From the perspective of crime management, ICT allows for the collection of intelligence in a timely manner, the collection of evidence for use in an investigation and the ability to respond swiftly to a crime. The finding corroborates Shehu et al. (2024), who found that the use of ICT applications such as CCTV surveillance, GIS and biometric systems significantly contributed to the detection and investigation of crime in Kaduna Metropolis. Likewise, Saraki et al. (2026) discovered that digital technologies improved the functions of surveillance, intelligence collection, and operational efficiency of the police and other law enforcement agencies in Lagos State. Similarly, Nweke and Anim-Wright (2024) found that technology-based policing would enhance the efficacy of law enforcement by means of information management and digitalisation.

Evidence handling and intelligence sharing

The finding is, however, in contrast to the findings of Uduo and Obaji (2024), who concluded that the effectiveness of advanced policing technologies could be limited by issues of privacy, algorithmic bias, and insufficient police technology regulation. The difference can be explained by the particular focus of the present study on the overall contribution of ICT in conventional policing instead of predictive policing and technologies alone.

Overall, the findings confirm that ICT is an essential instrument to facilitate crime detection and prevention through better surveillance, faster gathering of intelligence and effective investigations of crime.

The Government will advance ICT and Coordination and Communication between Law Enforcement Agencies

The study revealed that ICT has a significant positive influence on the coordination and communication between the law enforcement agencies in Delta State. This means that ICT has increased information sharing and collaboration, helped in responding to emergencies and enabled communication between security agencies and the public. The study confirms the literature suggesting that the need for integrated communication systems in the promotion of effective policing and coordinated security operations is compelling. Digital communication technologies allow for better sharing of information, better process flow in operations, and better action in the event of a security threat.

The result aligns with Saraki et al.'s (2026) findings, which showed that digital communication systems had a great effect on coordination and operational planning amongst law enforcement personnel. Likewise, Nweke and Anim-Wright (2024) discovered that technology-based policing enhances institutional collaboration by sharing electronic information and utilising a unified digital platform. Dauda (2024) also noted that the use of ICT for the purpose of intelligence gathering is beneficial in terms of coordinated responses and ensuring sustainable crime management.

However, according to Opesade (2021), there was a continued lack of proper integration of ICTs and weak reporting systems in Nigeria, preventing effective collaboration between security agencies. The variation might be due to the improvement in ICT infrastructure and institutional co-operation recorded in this period that was covered in the present study.

The overall results indicate that ICT has contributed to the establishment of communication networks, intelligence sharing and collaboration between security agencies and, as a result, the management of Delta State crimes has improved.

The Adoption of ICTs and Crime Control Poses Several Challenges

The study revealed that the adoption and use of ICT poses various problems which negatively affect the management of crimes in Delta State. This suggests that the effectiveness of ICT in supporting crime management is undermined by a lack of adequate funding, electricity supply, connectivity, ICT training and integration of ICT systems.

The result confirms organisational systems theory in which technology can enhance the performance of an organisation only if proper infrastructure, skilled staff and institutional resources are available.

The discovery coincided with that of Ismail (2020), who reported that lack of adequate ICT infrastructure, shortage of technological equipment and limited technical expertise were some of the challenges militating against effective policing in Nigeria. Likewise, Uduo and Obaji (2024) noted that these are factors which limit the effectiveness of enforcement in the country due to low institutional capacity, technical and regulatory weakness.

Under technology-driven policing, Ekwensi (2026) discovered a lack of funding, unstable power supply and a maintenance culture as key factors affecting the performance of ICT-based security systems, while Adewopo et al. (2024) revealed the lack of technological infrastructure, cybersecurity skills and financial resources as some of the challenges of technology-driven security systems in West Africa crime prevention. Overall, it is found that ICT holds a high potential to enhance the management of crime, but it has to be funded, equipped and supported properly; personnel must be trained continuously, power supply stable and institutional support must be strengthened.

Conclusion and Recommendation

From the study results, it was concluded that Information and Communication Technology has become a necessary tool to assist in the management of crimes in Delta State. The use of ICT has been very helpful in the detection and prevention of crime by improving surveillance, helping to gather intelligence at an opportune time, assisting criminal investigations and strengthening the link between the police and the public. It facilitates quicker responses to security threats. The study also established that ICT has enhanced coordination and communication among the law enforcement organisations with improved information sharing, digital communication and security operations. These enhancements have bolstered the overall impact of security agencies in combating crime in the state. It goes without saying, however, that the study also reports that the usefulness of ICT in crime management is limited due to various institutional and infrastructural problems such as inadequate funding, unstable electricity supply, lack of internet connectivity, lack of ICT training and weak ICT systems integration between security agencies. The advantages that can come with ICT use cannot be realised if these challenges are not resolved appropriately. The study, therefore, highlights the need for sustainable government investment in ICT infrastructure, continuous capacity building, better inter-agency cooperation and support to improve public safety in Delta State by managing crime.

The following recommendations are made based on the findings and conclusions of this study:

1. There should be improved support for ICT infrastructure and facilities (reliable electricity, internet connectivity, etc.) at the federal and state levels that will facilitate crime detection, prevention, surveillance and investigation.
2. Law enforcement agencies should offer periodic ICT training and capacity-building programmes to enhance the capacity of security personnel in the use of the latest ICT tools for crime management.
3. Enhance inter-agency cooperation through integrated ICT platforms for real-time information sharing, intelligence exchange, coordinated responses and effective communication in crime management by security agencies.

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