Volume 25 Issue 10
Originally issued as A3

Global Journal of Human-Social Science: A
Arts & Humanities - Psychology
Volume 25 Issue 3 Version 1.0 Year 2025
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-460X & Print ISSN: 0975-587X

The use of Modus Operandi as an Identification Technique in the Investigation of Cash-In-Transit Robberies in Limpopo Province, South Africa

By Lufuno Ramatsitsi & Dumisani Quite Mabunda

University of South Africa

Abstract- The aim of this article is to explore the use of modus operandi (MO) as an identification technique in investigating Cash-In-Transit (CIT) robberies in the Limpopo Province of South Africa. The study adopted a qualitative research approach and a case study design. A purposive sampling technique was used to choose 15 participants from three Serious Organised Crime Investigation Units (SOCIU) of the Directorate for Priority Crime Investigation (DPCI). Semi-structured interviews were conducted with 15 investigating officers attached to Polokwane SOCIU, Phalaborwa SOCIU and Musina SOCIU for data collections. Data was analysed through spiral data analysis. The findings of this study show that CIT robbery is a challenging issue in the Limpopo Province of South Africa. Furthermore, the nature and extent to which CIT robbery occurs in South Africa are also outlined in the study, thus making empirical and significant contributions by exploring and describing the MO used by perpetrators in the commission of CIT robberies. Consequently, the study recommendations proffered include that the CIT robbery investigating officers should undergo specialised training; the implementation of MO database; and provision of sufficient resources to DPCI - SOCIU.

Keywords: modus operandi, identification technique, Cash-In-Transit robbery, serious organised crime investigation unit, directorate for priority crime investigation.

GJHSS-A Classification: LCC Code: HV8079.C47



Strictly as per the compliance and regulations of:

© 2025. Lufuno Ramatsitsi & Dumisani Quite Mabunda. This research/review article is distributed under the terms of the Attribution-NonCommercial-No Derivatives 4.0 International (CC BY-NC-ND 4.0). You must give appropriate credit to authors and reference this article if parts of the article are reproduced in any manner. Applicable licensing terms are at https://creative commons.org/licenses/by-nc-nd/4.0/.

The use of Modus Operandi as an Identification Technique in the Investigation of Cash-In-Transit Robberies in Limpopo Province, South Africa

Lufuno Ramatsitsi [α] & Dumisani Quite Mabunda [σ]

Abstract- The aim of this article is to explore the use of modus operandi (MO) as an identification technique in investigating Cash-In-Transit (CIT) robberies in the Limpopo Province of South Africa. The study adopted a qualitative research approach and a case study design. A purposive sampling technique was used to choose 15 participants from three Serious Organised Crime Investigation Units (SOCIU) of the Directorate for Priority Crime Investigation (DPCI). Semi-structured interviews were conducted with 15 investigating officers attached to Polokwane SOCIU, Phalaborwa SOCIU and Musina SOCIU for data collections. Data was analysed through spiral data analysis. The findings of this study show that CIT robbery is a challenging issue in the Limpopo Province of South Africa. Furthermore, the nature and extent to which CIT robbery occurs in South Africa are also outlined in the study, thus making empirical and significant contributions by exploring and describing the MO used by perpetrators in the commission of CIT robberies. Consequently, the study recommendations proffered include that the CIT robbery investigating officers should undergo specialised training; the implementation of MO database; and provision of sufficient resources to DPCI - SOCIU.

Keywords: modus operandi, identification technique, Cash-In-Transit robbery, serious organised crime investigation unit, directorate for priority crime investigation.

I. Introduction and Background

South Africa has the highest rate of serious and violent crimes in the world, especially Cash-In-Transit (CIT) robbery, which negatively impacts the safety and security of the citizens and the economy of the country (Ramatsitsi, 2024:1). Wilson (2023:1) reports that every year in South Africa CIT robbery rates have appeared to be escalating, adding that law enforcement agencies are facing significant challenges in combating these crimes. These robberies are often organised, sophisticated, complex, and dangerous in execution, making it difficult to investigate the crimes.

The South African Banking Risk Information Centre (SABRIC) and South African Reserve Bank (SARB) has expressed concerns about the increase of violent CIT robberies in the country (SARB, 2018:1; Häefele, 2022:11). In the same way, the South African Police Service's (SAPS) crime statistics for the 4th Quarter (January-March 2022) indicate that the number of cases of CIT heists had increased again from 42 to 53 cases (26.2%) as compared to the same period in the previous year (SAPS, 2022a). The SAPS crime statistics for the 1st Quarter (April-June 2022) shows that 60 cases of CIT robberies had been reported, reflecting a 30.4% increase as compared to the same period of the previous year (SAPS, 2022b). The high prevalence of CIT robberies in South Africa, particularly in the Limpopo Province, is of concern. Undetected CIT robbery cases are a major concern in South Africa. Therefore, many questions are asked daily as to what can be done to eradicate the scourge of these robberies in South Africa.

This study identified a research gap on the utilisation of *modus operandi* (MO) in the investigation of these robberies, hence the necessity for this study to investigate the effectiveness of the police while investigating these robberies. As a result, the researcher sought to fill some of the existing gaps in previous research studies.

II. Problem Statement

South Africa has, in recent years, been heavily burdened with the scourge of CIT robberies, which the police struggle to eradicate (Thobane, 2019:32). The Portfolio Committee on Police was informed in June 2018 by the then Minister of Police, Mr. Bheki Cele, that CIT robberies are a type of terrorism (News24Wire, 2018:1). The rationale for undertaking this study lies with the prevalence of CIT robbery cases in the Limpopo Province, the analysis of which indicates that investigating officers are not well-versed about the importance of MO in investigating CIT robbery cases. Hosken (2018:2) highlighted that the festive season is the busiest time for CIT robberies to occur since more money is being managed, and when the police are under pressure to curb CIT robberies. Table 1.1 below shows the number of CIT robbery cases committed in the Limpopo Province for the period of 2012/2013 to 2021/2022 financial years.

Author α: Mr. Postgraduate Masters Student, Department of Police Practice, University of South Africa, South Africa.
e-mail: 59589884@mylife.unisa.ac.za
Author σ: Prof (Dr). Associate Professor, Department of Police Practice, University of South Africa, South Africa.
e-mail: mabundq@unisa.ac.za

© 2025 Global Journals

Table 1.1: Crime in Limpopo (Provincial Total) for April to March 2012-2013/2021-2022

Crime Category	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
CIT Robbery	05	07	09	13	10	14	13	15	13	25

Source: SAPS (2022c:104)

The above table indicates that between 2012/ 2013 and 2021/2022 Limpopo Province experienced 124 reported CIT robbery cases. The figures indicate that between 1 April 2012 and 31 March 2013, a total of 5 CIT robberies were committed in Limpopo Province, compared to 25 between 1 April 2021 and 31 March 2022. This represents a year-on-year increment of 20%, which shows the figure remains high and highlights the nature of the problem (SAPS, 2022c:104). From the SAPS annual report, crime statistics in Table 1.1 above, it is evident that Limpopo Province is experiencing a high rate of CIT robbery cases.

According to Burger (2018:1), CIT robberies represent serious danger to both public safety and the country's economy because they are on the rise in South Africa, with aggravating circumstances. The CIT robberies also disrupt the flow of cash, which causes major disruptions to the service delivery of South African Social Security Agency (SASSA) grants and access to Automated Teller Machines (ATMs) for citizens. The CIT industry in South Africa comprises five large CIT security companies, namely Group 4 Security (G4S) Cash Solutions; Protea Coin; Standard Bank, Barclays Bank and Volkskas (SBV) Services; Fidelity Cash Solutions; and IziCash.

In addition, media reports and social media show that the SAPS do not use MO information when investigating crime (Lochner, Horne, & Van Wyk, 2018: 210). The difficulty is that in most situations, suspects are not apprehended, and they continue to commit CIT robberies since there is lack of evidence linking them to the scene of crime. The major difficulty is that most perpetrators are not apprehended, and they continue to commit CIT robberies owing to lack of evidence linking them to the crime scene. As a result, a large number of cases are closed undetected owing to insufficient or lack evidence. This study is imperative because it contributes to the body of knowledge on MO in the investigation of CIT robbery cases. The findings of this study will provide recommendations for solving the problem using best practices. Again, this study contends that the conviction rate would rise if the MO investigation approach was employed in investigating CIT robbery cases.

III. Conceptualising Cash-In-Transit Robbery

According to SAPS (2020:77) annual crime report, CIT robbery is "the intentional and unlawful forceful removal and seizure of cash money or containers for the conveyance of money belonging to another, while such money or containers for the conveyance of money are being transported by a security company on behalf of the owner thereof". CIT robberies are situations where CIT security company personnel who are registered to transport cash money for clients are robbed while doing so (usually between the client and a bank or *vice versa*) (SAPS, 2023:30). For the robbery to be classified as a CIT robbery, it must have taken place when the personnel of Security Company were in possession of the money. Robbery of money that has been signed off to the client will be reported as business robbery rather than CIT. In incidents where individuals in their private capacity or employees of businesses are robbed of cash, while enroute to or from a bank, the charge would be robbery with firearm and not CIT robbery (SAPS, 2023:30).

In addition, Klopper and Bezuidenhout (2020: 222) concur with SABRIC (2019:14) that CIT robbery is the unlawful, intentional, and violent removal and appropriation of cash while in transit or under the custody of a security company. As such, Piennar (2014: 104) explains that CIT robbery consists of the removal of cash using threats and violence inside or outside the bank or other premises. This type of robbery usually takes place outside a bank or in other business premises, or on the way to a security depot or business. This further includes the removal and appropriation of movable assets using threats of violence. The key consideration is that the movable assets must be under the control of the CIT Company registered to transport cash for clients, normally between the client and a bank or *vice-versa* and are robbed while transporting such cash.

Various agencies and institutions employ different definitions and classifications of crime. Considering the above, the definitions of CIT robbery by the SAPS, SABRIC, and Cash-In-Transit Association of South Africa (CITASA) are different. The SAPS definition states that the CIT Company must have already gained custody of the money, but with SABRIC and CITASA, the personnel of the CIT Company must be present during the theft of the money, even if they have not yet taken control of it.

Furthermore, there is no such crime of CIT robbery in South Africa; instead, it is referred to as robbery with aggravating circumstances. The term CIT robbery is a classification allocated by SAPS for statistical purposes. The perpetrators who commit the

© 2025 Global Journals

crime against a CIT Company are charged with robbery with aggravating circumstances. Section 1(1) (b) of the Criminal Procedure Act, 1977 (Act No. 51 of 1977) defines aggravating circumstances in relation to robbery or armed robbery as the use of a firearm or other dangerous weapon, or the infliction of grievous bodily harm (GHB), or a threat to inflict GHB, by the perpetrator or an accomplice on the occasion when the offence is committed, whether before, during, or after the commission of an offence (South Africa, 1977; Snyman, 2020:451).

IV. Different Types of Cash-In-Transit Robberies and Modus Operandi

CIT robberies have been classified depending on the nature of the target, namely Armoured Vehicle (AV), the Cross Pavement Carrier (CPC), the Merchant's Premises, as well as the Own Premises. There have been many different types of attacks on CIT service providers. These are discussed below.

a) Cross-pavement Robbery

When cash is robbed by force while being transported to or is being loaded into a stationary AV, or when it is being unloaded from the stationary AV and being transported to the bank, it is called cross-pavement robbery (Klopper & Bezuidenhout, 2020:319). This type of robbery occurred when the index makes provision for robbery incidents where the attack was directed at the security guard carrying the CPC or warrior bag of money whilst crossing the pavement or in the parking area, and it includes cash destined for a bank branch or ATMs site. Another explanation offered by Burger (2018:1) is that cross-pavement robbery occurs when CIT security personnel are robbed while transporting cash between the AV and a business or *vice-versa*. This type of robbery takes place outside the CIT vehicle in the parking area or pavement, where the CIT security guard is accosted by armed perpetrators while returning with the CPC bag of cash toward the AV.

b) Vehicle on Road Robbery

The vehicle on-road robbery is also known as AV on-road attack. This type of robbery occurs on the road when an AV carrying cash is stopped, either by driving into the CIT vehicle with another vehicle or impeding the AV (boxing in) to appropriate the cash within the vehicle (Klopper & Bezuidenhout, 2020:319). The attack includes robberies where the CIT security vehicles are targeted by the suspects, through various means, with the intent to gain control of and/or immobilise the cash-carrying vehicle while in transit. These measures include the security vehicles being forced off the road using a collision (tap-tap), boxed in and forced to a standstill or overturned, by the excessive use of violence (drive-by shooting).

One of the MO used to bring the AV to a standstill or overturn on the road is to ram it using high-end luxury sedans. This type of attack usually takes place on the road, usually freeways. The most popular make of vehicles used to ram AV to overturn and/or standstill are Mercedes-Benz or Bavarian Motor Works (BMW) sedans. These vehicles are usually hijacked or stolen vehicles. It became a common trend for the perpetrators to burn vehicles used to ram the CIT vehicle beyond recognition to destroy evidence.

c) Merchant Attack

This type of robbery occurs where the attacker targets the merchant. This include robbery cases in which the attacker targets a security guard who is in possession of assets (money) while executing a service for a retail client (SABRIC, 2023:7). The incident takes place inside the retail (merchant) premises or pay point.

d) Static AV Attack

According to SABRIC (2023:7), static AV attack includes robberies where the security vehicle is targeted whilst stationery and perpetrators gain access to the security vehicle using, amongst others, threatening of the guards or use of petrol, explosive devices, and extreme violence. It further makes provision for attempted attacks where the security guards are brought under the impression that access to the security vehicle by perpetrators is imminent, but owing to circumstances, the attack is not completed.

e) CIT Directed at the Banking Industry

This type of robbery occurred in instances in which the attacker targets the security guard when they are carrying cash and are providing a service inside a bank branch or ATMs (SABRIC, 2023:7). If the security guard was on the way to or from the branch or ATM (not inside), these incidents will then be classified as cross-pavement attacks or static AV attacks if the cash was intended for/from a bank premises or ATM site.

f) Own Premises/Depot Attack

The types of robbery or burglary comprise incidents committed at the CIT company premises (SABRIC, 2023:7). This type of robbery is also known as depot attack. It involves robbery directed at CIT company premises. Often, offenders pretend to be maintenance personnel to get access to CIT depot (SABRIC, 2023:7). They utilise explosives to target either cash vehicles or cash storage facilities. Evidence demonstrates that carrying out such an attack requires precise planning and preparation.

V. Conceptualising Modus Operandi

According to Gilbert (2010:10), Bartol and Bartol (2017:314), Hall and Bezuidenhout (2019:32), Klopper (2020:596), Turvey and Freeman (2023:578), MO

© 2025 Global Journals

derived from a Latin phrase which means a method of operating and it refers to the manner in which crime has been committed. Thobane (2014:159-179), a leading researcher on CIT robberies in South Africa, persuasively argues that the most common MO in CIT robberies in South Africa involves attacking AVs with commercial explosives in addition to the ramming of vehicles and use of a lethal arsenal of weapons.

Labuschagne (2015:278) elaborates that MO includes the following elements "time and day of the offence, venue, weapons used, method of gaining access and controlling victim, and method of escape". Furthermore, Thobane (2019:33) goes deeper in explanations of MO and submits that all perpetrators have a method according to which they commit their crimes, which includes habits, techniques, and behavioural characteristics. In repeated acts, the characteristic pattern of acts as evidenced in an MO can be used to identify perpetrators and predict possible escalation of perpetrating (Van der Watt, Van Graan & Labuschagne, 2014:61). However, Berning and Masiloane (2012:84) submit a more comprehensive description of the term MO as regarding the trademark actions that could be associated with the commission of a crime by certain perpetrators. The investigating officers use MO to identify perpetrators' related behaviour and their method of committing a crime. MO is a great technique to link criminal cases by law enforcement services to identify the responsible perpetrator (Labuschagne, 2015:278).

a) Modus Operandi as an Identification Technique

Identifying the MO of the criminal perpetrator is a tactic employed by investigators to solve a crime. According to Van Graan and Budhram (2015:54), determining the identification of the perpetrator or suspect of a criminal act is critical because detection and, by extension, classification of incident scenarios are nearly impossible without it. When investigating a crime, the investigating officer must use all available lawful resources, tactics, and procedures to uncover the truth. According to Van Rooyen (2012:18), when investigating officers have gathered, processed, and stored sufficient information regarding an offense, MO information can aid in identifying and apprehending the perpetrators.

Furthermore, Van Graan and Budhram (2015:55) emphasise that identifications might be made either directly or indirectly during the investigation. The term "direct method of identification" specifically refers to methods used to identify offenders, including voice identification, photography identification, identification parades, personal descriptions, sketches, and the offender's mode of operation. The evidence used to connect criminals to the crime scene, such as DNA, fingerprints, hairs, fibres, soil, footprints, palm prints, and shoeprints, is referred to as the "indirect method of identification".

However, as noted by Van der Watt *et al.* (2014:61), each crime and criminal has an MO that can aid an investigating officer in identifying the perpetrator. Nonetheless, Labuschagne (2015:61) points out that since every crime scene is different, the presence of MO is essential for the investigating officer to identify the offender. MO has long been regarded as a reliable source of information for the CIT robbery investigation.

b) The Purpose of Modus Operandi

The Crime Administration System (CAS) and the investigation journal (SAPS 05 form) include records of every crime reported to the SAPS. As a result, Function 8.1.1.1 is used to log all information, including dates, hours, locations, techniques employed, target groups, and criminals' MO into the CAS system. Van de Watt *et al.* (2014:64), Berning and Masiloane (2012:84), and Turvey and Freeman (2023:578) state that the goal of MO is searching, tracing, collection, storage, and examination of a criminal's MO. For the following reasons, MO has historically been relevant to investigations:

- Linking unsolved cold cases by MO;
- Unsolved case identification by comparing known criminal MO with the MO evident in unsolved cases;
- Routine comparison of arrestee MO with the MO evident in unsolved cases;
- Development of investigative leads or offender identity in unsolved cases by virtue of accumulating MO information;
- Prioritisation or elimination of perpetrators; and
- Clearing of unsolved cold cases.

In addition to connecting instances, MO provides information about an offender's inner traits and motivations that is useful for criminal investigative analysis and offender profiling. For this reason, MO is utilised to track down offenders. MO thus refers to the traits exhibited by an individual during the commission of a criminal act.

VI. Factors that Influence Modus Operandi of CIT Robbers

The behaviours of perpetrators and their MO are acquired and therefore adaptable. This is because MO behaviour is influenced by time and can change as the perpetrator gains or loses skills. Perpetrators may recognise that certain choices they make when committing a crime are more effective than others. They may then repeat these choices in future offenses, becoming more proficient and reinforcing their MO (Turvey & Freeman, 2023:580). Perpetrators may learn various ways to commit crimes more skilfully, avoid capture, and conceal their identity, among other factors.

© 2025 Global Journals

a) The Criminal Background of the Perpetrator

Perpetrators who are more active can acquire new and improved techniques for carrying out criminal acts and evading arrest (Labuschagne, 2015:280). Professional knowledge and experience gained legally can be used to commit a crime. Gilbert (2010:224) argues that criminal gangs have established fixed MO, and perpetrators often establish a set of procedures early in their criminal careers, which they seldom change. The experience gained during criminal activities can also influence a criminal's future behaviour. A single arrest can provide a perpetrator with crucial insights on how to evade discovery by law enforcement in the future (Turvey & Freeman, 2023:581).

b) Media and Literature

Labuschagne (2015:281) states that the media has a crucial influence on the behaviour of the MO of the perpetrators. When the media platforms provide reports on crime, perpetrators are also listening to, reading, and watching the news. Hence, when robbery perpetrators become aware that their MO may provide a tracing hint to uncover identity, the perpetrator will adapt the actions naturally established during initial robbery attempts (Gilbert, 2010:224).

In addition, Labuschagne (2015:281) also argues that MO can be dynamic and may change over time. Television programs and movies focusing on crime often showcase police strategies for preventing crime. As a result, perpetrators can learn what actions to take or avoid to evade detection or arrest. Information about police investigation methods and techniques is widely available in books, on the internet, in magazines, and on other media platforms, making it easily accessible to anyone (Thobane, 2019:33).

c) Ad-hoc Influence

During the execution of a CIT robbery, things may not alway go as planned. In such cases, the perpetrator may need to be resourceful and adapt their approach to ensure the success of the criminal act. Labuschagne (2015:281) provides an example where unexpected factors such as resistance from the victim, intervention by bystanders, or the perpetrator's change of heart could force the use of violence, which was not initially part of the plan, to ensure the success of the crime.

Thobane (2019:33) elaborates that the MO plays a crucial role in "criminal investigation, crime detection, and crime prevention" owing to its ability to connect a single perpetrator to multiple criminal activities. Furthermore, the MO aids law enforcement in effectively distributing resources. Investigating the MO primarily aims to uncover the perpetrator's identity. The process of identification begins at the crime scene and continues until the guilt of the suspect is established (Ramatsitsi, 2024:49).

VII. Theoretical Framework

Theoretical framework is considered as the cornerstone of this article. This study is guided by the Locard's Exchange Principle (LEP) that was pioneered in Lyon, France by a forensic scientist Dr. Edmond Locard in the early 20th century (Orthman & Hess, 2013: 123). The theory was adopted because of its relationship with the problem and its suits the context of the study. LEP is one of the cornerstones of forensic science and is regarded as the most prominent theory in both criminal and forensic investigation. LEP is based on the contact theory, which states that when two items come into contact, trace elements are transferred from one to the other, leaving evidence of the contact behind (Orthman & Hess, 2013:123; Lochner & Zinn, 2015:14; Klopper, 2020:596). In other words, when two items or persons touch, materials are transferred reciprocally, and evidence can be discovered from both elements.

In addition, LEP holds that "every contact leaves a trace" and an individual cannot behave or act without leaving a trace of their presence (Van Graan & Budhram, 2015: 45). As a result, Locard felt that anytime a perpetrator committed a crime at a crime scene, they would bring something into the scene, leave something there, and take something away from the scene (Gilbert, 2010:82). On the other hand, LEP assumes that no matter where a criminal travels or what a criminal does, coming into contact with items can leave trace evidence, including fingerprints, footprints, shoeprints, Deoxyribo-nucleic Acid (DNA), skin cells, hair, blood, body fluids, bits of clothes, fibres, and more.

Van Rooyen (2012:20) concurs that incriminating evidence is left behind anytime two items come into contact. A criminal cannot, then, behave without leaving traces of his actions. In examining CIT robbery cases, Loncher and Zinn (2015:40) agree that any object that criminals handle at the crime scene will have traces of evidence on it. According to this view, in case of CIT robberies trace evidence such as empty cartridges, projectiles (bullets), explosives substances and spikes are typically left behind at the scene of crime.

VIII. Research Methodology

A qualitative research approach was adopted in this study, underpinned by interpretivist research paradigm. This approach was deemed suitable to address the main objectives of this article. This approach used a case study research design, which allows the researcher to gain in-depth empirical data from a small group of individuals through interviews and a detailed understating of the participants' experiences and perspectives on the use of MO to combat CIT robbery in Limpopo Province, South Africa. Omodan (2022:277) considers an interpretivist research paradigm is a way of understanding the world that emphasises the

© 2025 Global Journals

role of interpretation in sympathetic reality. According to Creswell and Creswell (2023:283), interpretivism encourages, individuals to construct personal meanings of their experiences, which are focused on specific objects. Therefore, the interpretive paradigm was appropriate for this study as the researcher sought to collect qualitative data to obtain a deeper understanding of the area under investigation.

Furthermore, data was collected using semi-structured interviews (face-to-face) one-on-one with 15 investigating officers. The data for this study was collected in three settings in the Limpopo Province, namely: Musina SOCIU, Phalaborwa SOCIU, and Polokwane SOCIU. In terms of statistics, these three SOCIU were selected since they were reported to have experienced high crime rates of CIT robbery cases in the Limpopo Province (See Table 1.1 above). The purposive or judgemental sampling is considered a non-probability sampling technique and was utilised in this study to select participants. According to Ramatsitsi (2024:59), alludes that purposive sampling technique allowed the researcher to use his judgement in selecting suitable participant. Therefore, participants was selected purposefully because of their experience relating to the phenomenon under investigation.

Ethical considerations is of paramount importance for every study. An ethical clearance certificate was received from the University of South Africa, Ethic Review Committee (Ref: #1415) and the external gatekeepers SAPS DPCI (Ref: 3/34/2), prior data was collected. Permission to conduct the study was further granted by the National Head of the DPCI. The participants were informed about the purpose of the study, and that they are allowed to withdraw from the study when they felt unconfutable with the interview proceedings. Prior to the commencement of the interview, the study participants were requested to sign informed consent forms freely, voluntarily, and without undue influence. The right to confidentiality, privacy, and anonymity was ensured by utilising pseudonyms ranging from participant 1 to 15. Semi-structured interviews were conducted during business hours and the open-ended questions that were posed to the participants were not offensive. Therefore, this was done to ensure or to avoid the participants would not be harmed psychologically, physically, and emotionally.

The data analysis of this study was guided by the following Creswell and Poth's (2018:186) five-spiral data analysis process:

- The first step is managing and organising data where files and units will be prepared.
- The second step includes perusing and memoing the emergent ideas, where memos lead to code development, thus reflecting and summarising the field notes.
- The core of this data analysis was the third step, which entails describing and classifying codes into themes where initial codes were named and assigned under categories.
- The fourth step is developing and accessing interpretations where contextual understanding is achieved by relating classifications, themes, and families, thus connecting to the systematic framework in the literature.
- The final step is representing and visualising data, where a perspective is created by showing and reporting the data.

Trustworthiness of this study determined by four distinct aspects, namely credibility, conformability, transferability, and dependability, and it is these four aspects that indicate validity and reliability of the study (Du Plooy-Cilliers, David, & Bezuidenhout, 2014:258). Creswell (2014:201) emphasises that credibility entails activities that enhance the probability that credible findings will be produced. To ensure credibility, in this study analysed data obtained from the participants and the relevant literature collected, as well as drawing researcher experience on the matter to separate relevant data from irrelevant data. Bless, Higson-Smith and Sithole (2015:237) note that transferability refers to the extent to which the findings of the study applied to other contexts or with similar situations. The researcher ensured transferability by using a purposive sampling technique with the intention to maximise the diversity of specific information that could be acquired from and about the phenomena under investigation. Dependability is the alternative to reliability and is used to standardise whether the research procedures will be logical, well audible, and well documented (Bryman, Bell, Hirschsohn, Dos Santos, Du Toit, Masenge, Van Aardt, & Wagner, 2014:376). To ensure dependability, the researcher presented data in an honest manner, as it was delivered by the participants. Lastly, confirmability refers as to how well the data obtained supports the researcher's interpretation and findings (Du Plooy-Cilliers *et al.,* 2014:259). In this study, the *verbatim* responses of the participants' were taken as truthful.

IX. Demographic Information

In this article, 15 participants' were interviewed with respect and in line with ethical principles. Participants from Musina SOCIU were participants 1-5, while participants from Phalaborwa SOCIU were participants 6-10 and lastly, participants from Polokwane SOCIU were participants 11-15. The demographic information of participants who participated in this study are presented in Table 1.2 hereunder.

© 2025 Global Journals

Table 1.2: Participants' Demographic Information n (n=15)

Participant Number	Gender/ Sex	SOCIU	Rank/Title	Highest Educational Qualification(s)	Years in CIT robbery investigation
1	Female	Musina	Captain	Grade 12	33
2	Female	Musina	Captain	Degree	05
3	Male	Musina	Lieutenant-Colonel	National Diploma	05
4	Male	Musina	Sergeant	Grade 12	05
5	Male	Musina	Captain	B-Tech degree	15
6	Male	Phalaborwa	Lieutenant-Colonel	National Diploma	30
7	Male	Phalaborwa	Warrant Officer	Grade 12	05
8	Male	Phalaborwa	Captain	National Diploma	25
9	Male	Phalaborwa	Warrant Officer	Grade 12	15
10	Male	Phalaborwa	Lieutenant-Colonel	Grade 12	21
11	Female	Polokwane	Warrant Officer	BA Honours	05
12	Male	Polokwane	Lieutenant-Colonel	Grade 12	13
13	Male	Polokwane	Captain	Grade 12	16
14	Male	Polokwane	Sergeant	Grade 12	05
15	Male	Polokwane	Captain	B-Tech degree	05

Source: Researcher's own illustration

The participants were asked about their demographic information on gender, place of employment, rank, years of service in the investigation of CIT robbery cases and highest qualification. Accordingly, to ensure anonymity, participants were assigned with pseudonyms ranging from participant 1 to 15 (real names were not used). The focus of the study was not on the gender, highest educational qualifications and/or participants' area of employment. However, empirical data was collected and presented to provide the readers with a broader picture of the sample employed to generate data. Table 1.2 above further shows that the majority of participants were males (n=12), and fewer (n=3) females. The ranks of participants were six (06) Captains, four (04) Lieutenant-Colonels, three (03) Warrant Officers, and two (02) Sergeants. Table 1.2 displays that eight (08) participants' highest qualification was Grade 12, three (03) a National Diploma, two (02) a B-Tech degree, one (01) a BA degree and one (01) had a BA Honours degree. Lastly, Table 1.2 shows that the number of years in the investigation of CIT robbery cases in this study ranged from 05 to 33 years. In response to question, the following responses were provided by participants during this study, namely.

X. Discussion of the Findings

This section presents findings through precise themes, which were generated from the participants' response towards the phenomena of CIT robberies in the Limpopo Province of South Africa. The purpose of establishing themes was to capture the relevant features of data in connection with the research purpose and objectives represent the level of patterned response or meaning from the collected data to achieve the study aim. The data collected from the investigating officers and generated into themes. The identified themes represent the findings of this study and are supplemented by the participants' *verbatim* responses from the transcribed interviews.

a) Theme 1: Cash-In-Transit Robbery

The following question was posed to the participants to ascertain and assess SOCIU members' understanding of CIT robbery: "What is your understanding of the concept of CIT robbery"? This question received multiple responses from some of the participants, with their answers quoted *verbatim* as follows:

> *"These types of robberies occur when security officers are robbed while carrying cash from armoured cash vehicles to a business or vice versa"* (Participant 1).
>
> *"Unlawful and intentionally taking or stealing of cash (in a violent manner) which is transported or taken to a certain destination"* (Participant 2).
>
> *"It is the process of moving money on the national roads by means of vehicles to different institutions of business"* (Participant 3).
>
> *"Robbery of money; Taking of money; Shooting of security personnel"* (Participant 4).
>
> *"Cash-In-Transit Robbery may be described as the violent seizing of cash unlawfully and occurs while cash is under the supervision or control of security companies such as Fidelity Cash Solutions, G4S Cash Solutions, SBV Cash Solutions, etc. and can take place inside the bank, outside bank"* (Participant 5).

© 2025 Global Journals

"Cash in Transit is an offence committed by a group of people using high calibre and handgun firearms committing an offence in aggravating circumstances against vehicles which carry money" (Participant 6).

"To rob the motor vehicle transporting money from point A to point B" (Participant 7).

"Robbery during the transportation of money from banks to banks or from clients to banks, mostly by security personnel, and where serious violence is involved to rob the cash" (Participant 8).

"It occurs during when the armoured vehicle is being robbed while transporting cash from one part to another" (Participant 9).

"…When motor vehicles on the road deliver the money back to shops and vice-versa" (Participant 10).

"Robbery of cash or valuable items being transported by armoured vehicles" (Participant 11).

"The suspects use violence, are fully armed with automatic rifles, explosives, and shoot randomly with the purpose of taking all the money inside the cash van" (Participant 12).

"Robbery from the vehicle transporting money" (Participant 13).

"Is the armed robbery planned by multiple offenders with firearms with the aim of gains" (Participant 14).

"Robbery committed against security company by forcefully depriving them of cash which is under their custody from an armoured vehicle whilst on the way to deliver it" (Participant 15).

From the above, it emerged that the CIT robbery was understood by most of the participants. SABRIC (2019:222) concurs with Klopper and Bezuidenhout (2020:222) and defines CIT robbery as the intentional, unlawful, and violent removal and appropriation of cash while it is in-transit or under the supervision of CIT security company personnel. The participants' responses varied, yet each was relevant. Some participants held some viewpoint as the literature consulted.

b) *Theme 2: Different Types of CIT Robberies and Modus Operandi*

There are different types of CIT robberies manifestations, which are determined by the action taken by the perpetrator during the commission of crime. When the participants asked: "What are the different types of CIT robberies that you come across during your years of experience"? The participants' *verbatim* responses were as follows:

"Pavement robberies, Cash-in-transit robbery" (Participant 1 & 4).

"Cross-pavement robbery, Robbery inside bank or store, Robbery at pay point, Robbery from vehicle in motion" (Participant 2).

"Vehicle was shot at, then explosives used to blow open the safe. Stopped and forced to open the safe at gun point" (Participant 3).

"Vault attacks, cross pavement, ATM attacks and Bank robberies" (Participant 5).

"Cross pavement; Bomb of armoured vehicle transporting money" (Participant 7 & 14).

"Pavement robbery; Robbery during cash transportation on the road by security armoured vehicles; Banks; Vaults" (Participant 8).

"Pavement robbery; Vehicle on road" (Participant 9, 11 & 15).

"Cash-In-Transit (Vehicle on the road); Pavement Robbery (Vehicle is at standstill, security guard taking money from m/v to the shop vice-versa); Bank Robbery (Inside the bank)" (Participant 10).

"Pavement robbery, merchandise, vehicle on road, Robbery in premises, static robbery and robbery at Depo, Vault attack" (Participant 12).

"When the money is taken from the vehicle to the bank before it reaches the bank [Pavement robbery]; AV attached in the road; AV attack; Merchant premises Robbery" (Participant 13).

All the participants answered the question. The data is in line with Burger (2018:1), Klopper and Bezuidenhout (2020:319), and SAPS (2023:31) that confirms that CIT robbery can be divided into five main types: vehicle on road attack, cross-pavement attack, static armoured vehicle attack, merchant retail or pay point as well as own premises or depot attack. Many participants' responses were in line with the viewpoints of the authors; other participants mentioned CIT robbery again, while others mentioned the types of CIT robberies. However, there is a requirement for further training in this regard.

c) *Theme 3: Modus Operandi of Perpetrators in CIT Robbery Cases in Limpopo Province*

The following questions was asked during the interview: "What is the *modus operandi* of perpetrators in CIT robbery cases in Limpopo Province?" Please elaborate?" The participants provided the following *verbatim* responses to this open-ended question:

"They operate in groups of plus/minus 10 people wearing balaclavas in order to hide their facial identification. They use bakkies M/V as a getaway shooting randomly while leaving the scene" (Participant 2).

"Colliding with AV, shooting with rifles, distractions with explosives" (Participant 3).

"They rob the vehicle conveying money in most cases they block the road from the front and the back, shooting the vehicle in the tyres, force opened the door, blast the vehicle and left the driver alight from the car or vehicle" (Participant 4).

"In Limpopo, perpetrators took much time to plan and to prepare for the Cash-In-Transit Robbery. They planned for their targets, firearms and vehicles including explosives to be used. They also plan for the armoured Vehicle [AV] trucks. They also plan to choose the gang members and getaway cars. The planning may take about a week to two months,

© 2025 Global Journals

and this depends on the difficulty of the job to be carried out. The timing of time, place or area to carry or commit the cash-in-transit robbery to avoid being seen or identified by witnesses or being interrupted or arrested by the police not forgetting being killed by police and members of the community. They also evaluate members of the guards and also check if the robbery may be successful or not" (Participant 5).

"The perpetrators used to block the van, carry money and start to shoot it with high calibre firearms. After that they burn the van carrying money in order to avoid fingerprints being traced. Sometimes perpetrators stopped the G4S or Fidelity van carrying money by means of shooting at them and later they blast the aforesaid vehicles by means of detonators in order to remove the canopy thereafter they take money. During cash-in-transit robbery the other perpetrators guard both sides of the road to avoid disturbance" (Participant 6).

"Most of the perpetrators use stolen cars to bump the armoured vehicle in order to lose control" (Participant 7).

"Ram and or shooting the armoured vehicle to standstill, thereafter, bomb the same with explosives to force the safes open in order to access cash" (Participant 8).

"They use a Mercedes Benz which they robbed from other victims specified for committing robbery. They collide with the vehicle which will be transporting cash and shoot the front tyre. They use high calibre rifles. They preferred to use stolen vehicles during robbery, AK47, R5, 775, R1" (Participant 9).

"They use stolen motor vehicles, High powered vehicles, using rifles to commit the crime, groups of more than 10 perpetrators" (Participant 10).

*"The use of [Old BMW or Mecedes Ben] to hit the cash van head on for distraction; They use explosives to bomb the cash van to access the safe; They use white Ford bakkies as their vehicles" (*Participant 11).

"They attack the cash van by shooting the wheels until it stands still and take out the security guards and bomb the vehicle and take the cash and burn it to destroy evidence" (Participant 12).

"Firstly, there is an organiser who will bring tools like vehicles, firearms, explosives, cellphones for communications, drivers of getaway cars, warehouse and also the insider who gives the suspects the job and also". The root which the cash-in-transit vehicle is going. The warehouse before and after the commission of crime. The shooter during and after the cash-in-transit. The largest numbers during my work experience, plus/minus 15 suspects armed with Pistols and Rifles" (Participant 13).

"Bombing the armoured vehicle and burning the vehicle used to transport the offender" (Participant 14).

"Criminals are mostly above 12 in number, they will use a high-powered motor vehicle in most cases SUV to ram into an armoured vehicle, when it stops either they will shoot at security officers with high calibre firearms or instruct security officers to alight from armoured vehicle, plant explosives and blast it open then take the money and flee from the scene" (Participant 15).

The above *verbatim* responses of participants revealed that they are familiar with the MO of perpetrators in CIT robbery cases in Limpopo Province, South Africa. However, their responses are not the same. The MO of CIT robbers is characterised by brazenness, brutality and military precision.

d) Theme 4: Factors that Influence Modus Operandi in CIT Robbery

According to Labuschagne (2015:280) identifies factors that influence MO as follows: perpetrators criminal background, literature and media, and ad hoc influences. When asked the question: "Based on your experience, what are some of the factors that influence "*modus operandi"* in CIT robbery?" The participants gave the following *verbatim* responses:

"Media, operational area, when the security is not tight, they take opportunity and rob" (Participant 1).

"Environment they operate, types of weapons they used, security measures, route and timing" (Participant 2).

"Vehicle travel without escort vehicle. Few security personnel in the vehicle e.g. CIT. Type of CIT AV" (Participant 3).

"Poverty, lack of work, lifestyle" (Participant 4).

"Crews will often enlist the cooperation of employee from the banks and cash-in-transit company. This will help or assist in ensuring the success of the planned robbery. This happens because perpetrators are being fed inside information which provides perpetrators with more or added advantages to win the robbery or to be successful" (Participant 5).

"Greed. To be seen as the rich people and due to unemployment in the country" (Participant 6).

"Some of them they are watching some movies to adopt the style" (Participant 7).

"To access cash easily and fast; Unemployment rate; Greediness" (Participant 8).

"They need cash; Influence by other criminals; They need firearms and cars; To impress their friends" (Participant 9).

"Greedy and selfish" (Participant 10).

"They always succeed on the same modus operandi and they continue on it even the same M/V were used" (Participant 12).

"Watching movies of Mafias in the TV. The videos [videos] from the tiktaks [TikTok] showing people having photos carrying bulk of money and also unemployment" (Participant 13).

"Unemployment; Peer pressure; Substance abuse" (Participant 14).

"Date and time crime was committed; Methods and equipment; Types of companies targeted" (Participant 15).

Considering the above responses, participants demonstrated that they comprehend the question, and their responses are unique from one another but respond to the question asked. This study confirms the findings as stated by Gilbert (2010:224), Labuschagne (2015:281) and Thobane (2019:330) who emphasise that media plays an imperative role in the shaping and modifying of perpetrators MO. However, there is a requirement for further training in this regards.

The responses of the participants and the findings of the study indicated that in terms of the above

© 2025 Global Journals

Theme 1 to Theme 4, the investigating officers of CIT robberies in the Limpopo Province need further training to improve their knowledge regarding the investigation of CIT robberies. One would expect that experience investigators would have already possess this knowledge, but the findings display opposite.

XI. Recommendation

It is of paramount importance for the researcher to proffer recommendations to set out alternative actions that could be implemented based on the findings of this study. The recommendations emanating from reviewed literature and findings of this study are deliberated hereunder.

a) Recommendation 1: Specialised Training

The DPCI - SOCIU investigating officers should be taken for regular training for them to be able to properly investigate the cases of CIT robbery. By doing so, investigators will be informed of the latest techniques to solve CIT robbery cases by locating, linking, identifying, and arresting perpetrators through the utilisation of MO. Therefore, the training of the SAPS DPCI officials on these CIT robbery crimes is recommended as a matter of urgency.

b) Recommendation 2: Modus Operandi Database

Collected MO information of CIT robbery perpetrators should be updated and stored until required. Therefore, it is recommended that the MO information be recorded on the SAPS - CAS system and Investigation Case Docket Management System (ICDMS) include a compulsory case docket annexure consisting of MO information of the perpetrators. The MO information databases should be used to identify CIT robbery criminal syndicates and arrest repeat perpetrators. In addition, the MO information database should also be utilised as a reference for comparing the MO of well-known CIT robbery perpetrators. The SAPS should be fully aware of the MO utilised in committing CIT robbery crimes. The understanding of MO would give detailed information and results in successful strategies in dealing with this crime effectively. It is further recommended that suggested MO databases of the SAPS should be monitored to ensure sufficient and accurate MO information.

c) Recommendation 3: Provision of sufficient resources

It is essential that the SOCIU units within the DPCI focusing on the investigation of CIT robberies should be capacitated, with armoured vehicles and helicopters to respond to the CIT robberies. The SOCIU units should be capacitated, decentralised, and adequately supported in terms of human resource and financial backing/funding. This study recommends that the SAPS DPCI should be capacitated with resources and skills to enable them to be able to investigate CIT robbery. The members from Forensic Science Laboratory (FSL), National Prosecuting Authority (NPA), CITASA, SABRIC and intelligence agency should be incorporated (integrated multidisciplinary approach) under this unit and CIT robbery should only be their main functions and/or priority.

XII. Recommendation for Future Study

Future research studies should be conducted to prevent and combat CIT robbery in the selected Limpopo Province areas, across the Republic of South Africa and elsewhere. There is a need to conduct a comparative study to explore the effectiveness between the MO used to identify perpetrators in CIT robberies against the MO used to identify perpetrators in other crimes mentioned in this study. Future research should utilise more instruments in data collection and data gathered through interviews, to create more validity and reliability in the findings.

XIII. Conclusion

In conclusion, this study discovered both positive and negative research findings relating to the phenomena under investigation. Therefore, negative findings of this study have highlighted an uninspiring interpretation of the subject matter under investigation. The aim of this study sought to explore the use of MO as an identification technique in investigating CIT robberies. The research findings indicate that CIT robbery is a challenging issue in the Limpopo Province, South Africa. This study made empirical and significant contributions by exploring and describing the MO used by perpetrators in the commission of CIT robberies. Therefore, should the SAPS and other relevant stakeholders consider the implementation of the recommendations discussed in this study, it would greatly curb CIT robberies. In addition, the MO of CIT robbers could be established, and case linkage could be made, re-opening of undetected case dockets could be made and increased arrests could be effected. As a result, the community members and CIT companies will have more trust of the police if the cases are sufficiently investigated and result in the successful prosecution of the perpetrators. The importance of the utilisation of MO in the investigation of CIT robbery cases is of paramount importance when it comes to addressing serious and violent crimes such as CIT robberies. In addition, MO has been successfully utilised internationally as perpetrators' identification technique to link multiple cases and identify responsible perpetrators for committing crimes.

References Références Referencias

1. Bartol, C.R. & Bartol, A.M. 2017. *Criminal behaviour: A psychological approach*. (11th edition). Upper Saddle River, NJ: Pearson.

© 2025 Global Journals

2. Berning, J. & Masiloane, D. 2012. The use of modus operandi forms by the South African Police Service to analyse crime. *Acta Criminologica: Southern African Journal of Criminology*, 25(1): 83-90.
3. Bless, C., Higson-Smith, G. & Sithole, S. L. 2015. *Fundamental of social research methods: An African perspective*. (5th edition). Claremont: Juta.
4. Bryman, A., Bell, E., Hirschsohn, P., Dos Santos, A., Du Toit, J., Masenge, A., Van Aardt, I. & Wagner, C. 2014. *Research methodology: Business and management* contexts. Cape Town: Oxford University Press.
5. Burger, J. 2018. Corruption is fuelling Cash-In-Transit heists: South Africa's new anti-crime plan must identify and prosecute corrupt police, prosecutors and magistrates. *The Institute for Security Studies*. 19 June. Available at: https://crimehub.org/iss-today/corruption-is-fueling-cash-in-transit-heists (retrieved on: 16 July 2023).
6. Creswell, J.W. & Creswell, J.D. 2023. *Research design: Qualitative, quantitative and mixed methods approaches*. (6th edition). Thousand Oaks: Sage.
7. Creswell, J.W. & Poth, C.N. 2018. *Qualitative inquiry & Research design: Choosing among five approaches*. (4th edition). Thousand Oaks: Sage Publications, Inc.
8. Creswell, J.W. 2014. *Research design: Qualitative, quantitative, and mixed method approaches.* (4th edition). Thousand Oaks: Sage.
9. Du Plooy-Cilliers, F., Davis, C. & Bezuidenhout, R.M. 2014. *Research matters*. Lansdowne: Juta.
10. Gilbert, J.N. 2010. *Criminal investigation*. (8th edition). Upper Saddle River, NJ: Prentice Hall.
11. Häefele, B. 2022. The poaching of rhino and elephant as a facilitator of organised crime in the greater Kruger National Park environment. *Acta criminological: African journal of criminology & victimology*, 35(1):1-24.
12. Hall, B. & Bezuidenhout, C. 2019. Exploring the modus operandi of male serial child rapist in South Africa. *South African Professional Society on the Abuse of Children: Child Abuse Research: A South African Journal,* 20(2):30-44.
13. Klopper, H. & Bezuidenhout, C. 2020. Crime of violence nature. (Pp. 222-352). In C. Bezuidenhout (Ed.). *A Southern African perspective on fundamental criminology*. (2nd edition). Cape Town: Pearson Education.
14. Klopper, H. 2020. The coordinating nature of forensic criminalistics. In C. Bezuidenhout (Ed.). *A Southern African Perspective on fundamental criminology*. (2nd edition). Cape Town: Pearson Education.
15. Labuschagne, G. 2015. Criminal investigation analysis: An applied perspective. (Pp 275-304). In R. Zinn, S. Dintwe (Eds.). *Forensic investigation: Legislative principles and investigative practice.* Cape Town: Juta.
16. Lochner, H., Horne, J. & Van Wyk, M. 2018. Die modus operandi-profiel van die kontantin transito-rower as eksklusiewe misdadiger. *LitNet Akademies Jaargang,* 15(2): 209-228.
17. Lochner, H.T. & Zinn, R.J. 2015. *Crime scene investigation*. Lansdowne: Juta.
18. News24Wire. 2018. *"Cash-in-transit heists could lead to losses of R470m, Parliament hears"*. Engineering news. 14 June. Accessed at: https://www.engineeringnews.co.za/article/cash-in-transit-heists-could-lead-to-losses-of-r470m-parliament-hears-2018-06-14 (retrieved on: 22 October 2023).
19. Omodan, B.I. 2022. A model for selecting theoretical framework through epistemology of research paradigms. *African journal of inter/multidisciplinary studies*, 4(1): 275-285.
20. Orthmann, C.H. & Hess, K.M. 2013. *Criminal investigation*. (10th edition). Delmar: Cengage Learning.
21. Pienaar, L. 2014. *Serious crime as a national security threat in South Africa since 1994*. Unpublished DLit et Phil Thesis, University of Pretoria, Pretoria.
22. Ramatsitsi, L. 2024. *An analysis of the use of modus operandi as an identification technique in the investigation of Cash-In-Transit robberies in Limpopo Province, South Africa*. Unpublished MA dissertation, University of South Africa, Pretoria.
23. Snyman, C.R. 2020. *Criminal law*. (7th edition). Johannesburg: LexisNexis.
24. South Africa. 1977. *The Criminal Procedure Act 51 of 19977*. Pretoria: Government Printers.
25. South African Banking Risk Information Centre. 2019. *Annual crime stats for 2019*. Report released by South African Banking Risk Information Centre on 06 August 2019.
26. South African Banking Risk Information Centre. 2023. *Annual crime statistics for 2022*. Available at: https://www.sabric.co.za/media/gq4hmbjw/sabric-annual-crime-stats-2022.pdf (retrieved on: 09 October 2023).
27. South African Police Service. 2020. *Annual Crime Report 2019/2020*. Available at: https://www.saps.gov.zza/about/stratframework/ (retrieved on: 17 May 2023).
28. South African Police Service. 2022a. *Police recorded crime statistics. Fourth quarter of 2021/2022 financial year January to March 2022*. Pretoria: Commissioner of the SAPS.
29. South African Police Service. 2022b. *Police recorded crime statistics. First quarter of 2022/2023 financial year April to June 2022*. Pretoria: Commissioner of the SAPS.
30. South African Police Service. 2022c. *Annual Report 2021–2022.* Pretoria: Commissioner of the SAPS.

© 2025 Global Journals

31. South African Police Service. 2023. *Annual Crime Report 2022/2023*. Available at: https://www.saps.gov.za/services/downloads/2022-2023-Annual-Crime-Statistics-Report.pdf (retrieved on: 16 June 2024).
32. South African Reserve Bank. 2018. *Cash-In-Transit briefing: Briefing to the Parliamentary Portfolio Committee on Police*. 13 June. Available at: https://pmg.org.za/files/1806135SARB.pdf (retrieved on: 09 April 2023).
33. Thobane, M.S. 2014. *The criminal career of armed robbers with specific reference to Cash-In-Transit robberies.* Unpublished MA dissertation, University of South Africa, Pretoria.
34. Thobane, M.S. 2019. Crime intelligence as a key strategy for the fight against Cash-In-Transit heists. *Servamus Community based Safety and Security Magazine, 112(1):32-33.*
35. Turvey, B.E. & Freeman, J. 2023. Case linkage: Offender modus operandi and signature. (Pp. 573-632). In B.E. Turvey (Ed.). *Criminal profiling: An introduction to behavioral evidence analysis*. (15th edition). London: Elsevier.
36. Van der Watt, M., Van Graan, J. & Labuschagne, G. 2014. Modus operandi, signature and fantasy as distinctive behaviour: Fundamental considerations in the case linkage of child rape cases. *South African Professional Society on the Abuse of Children: Child Abuse Research: A South African Journal*, 15(1):61-72.
37. Van Graan, J. & Budhram, T. 2015. Principles of investigation. (Pp.43-66). In R. Zinn, S. Dintwe (Eds.). *Forensic investigation: Legislative principles and investigative practice.* Cape Town: Juta.
38. Van Rooyen, H.J.N. 2012. *The practitioner's guide to forensic investigation in South Africa*. (2nd edition). Pretoria: Henmar.
39. Wilson, M. 2023. *Police struggle to combat Cash-in-transit heists in South Africa. 23 October*. Available at: https://timespost.co.za/opinion/police-struggle-to-combat-cash-in-transit-heists-in-south-africa/ (retrieved on: 23 October 2023).

© 2025 Global Journals