AN EVALUATION ON THE MANAGEMENT OF CASH-IN-TRANSIT ROBBERY BOMBING CRIME SCENES IN LIMPOPO PROVINCE

by

THABANG JOY BOGOPA
Student Number: 50114875

Submitted in accordance with the requirements

for the degree of

MASTER OF ARTS

in the subject

CRIMINAL JUSTICE

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: Professor J.S. Horne
CO-SUPERVISOR: Ms M.T. van Niekerk

DATE: JULY 2023

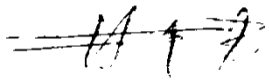
DECLARATION

I, Thabang Joy Bogopa, with student number: 50114875, hereby declare that this dissertation titled "**An evaluation on the management of cash-in-transit robbery bombing crime scenes in Limpopo Province**," is submitted in accordance with the requirements for the degree of Master of Arts in Criminal Justice in the subject, Forensic Investigation at the University of South Africa (UNISA).

I declare that the above dissertation of limited scope is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the dissertation to originality checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.



Signature: **Date:** 19 July 2023

Thabang Joy Bogopa

ACKNOWLEDGEMENTS

- I profoundly express my heartfelt appreciation of the expert guidance and supervision by Prof J.S. Horne and Ms M.T. Van Niekerk.
- To my former supervisor, Prof Budhram, may His soul rest in peace.
- The support from my wife and family.
- The insightful cooperation from participants of this study.
- The University of South Africa and the South African Police Service for allowing me to conduct this study.

ABSTRACT

The increase in violent and deadly cash-in-transit (CIT) robberies in South Africa since 2020 has become a serious concern. The magnitude and intensity of this type of crime has caused incalculable implications in society, the economy, policing, as well as the international image of the country. It is against this background that the current study sought to evaluate the management of cash-in-transit robbery bombing crime scenes in Limpopo Province.

A case study design was found to be a useful approach in this qualitative exploration of the phenomenon of cash-in-transit robbery bombings from the real-life experiences and knowledge of the sampled participants in their natural settings. The case study research design was most appropriate since it encourages the use of interviews as a mechanism to collect 'cases' of participants' experiences and knowledge in the context of the research topic and answers to the research questions.

Data was collected primarily by means of in-depth interviews with three (3) experts from the SAPS Explosives Section in Polokwane, Limpopo Province. They were purposively sampled on account of their scarce knowledge and expertise concerning crime scene management and bomb disposal. Thematic data analysis was undertaken through a five-step process involving organisation, perusal, classification, synthesis, and deduction of the collected interview-based data as the foundational premises of the study's evidence or findings/results.

The findings generated two critical themes related to characterisation of a cash-in-transit robbery bombing scene in which explosives were used, as well as the proper procedures for managing such scenes. The first theme generated the following sub-themes or categories: dislocation of evidence due to the blast wave; contamination of evidence while gathering scattered money; possibility of secondary bombs and shootouts; remnants of sharp objects and hazards; as well as tailored precautionary acts by perpetrators. Meanwhile, the second theme generated the following sub-themes or categories: activating the role of relevant role players; cordoning-off the crime scene; conducting of the first walkthrough, and stakeholder involvement in crime scene planning and investigation.

KEY TERMS

Evidence, cash-in-transit, explosives, crime scene management, bombing.

TABLE OF CONTENTS

DECLARATION ..... **i**
ACKNOWLEDGEMENTS ..... **ii**
ABSTRACT ..... **iii**
KEY TERMS ..... **iv**
TABLE OF CONTENTS ..... **v**
LIST OF FIGURES ..... **x**
LIST OF TABLES ..... **x**
LIST OF IMAGES ..... **xi**
ABBREVIATIONS AND ACRONYMS ..... **xii**
1. CHAPTER ONE: GENERAL ORIENTATION **1**
1.1 INTRODUCTION **1**
1.2 PROBLEM STATEMENT **2**
1.3 DELIMITATIONS OF THE STUDY **4**
1.4 AIM OF THE RESEARCH **5**
1.5 PURPOSE OF THE RESEARCH **5**
1.5.1 Description/Explanation 5
1.5.2 Evaluation 6
1.5.3 Exploration 6
1.5.4 Empowerment and developing good practice 6
1.5.4.1 South African Society 7
1.5.4.2 The body of knowledge and academia 7
1.5.4.3 The South African Police Service 7
1.6 RESEARCH OBJECTIVES **8**
1.7 RESEARCH QUESTIONS **8**
1.8 DEFINITION OF KEY THEORETICAL CONCEPTS **8**
1.8.1 Bombing 9
1.8.2 Cash-in-transit 9
1.8.3 Cash-in-transit robbery 9
1.8.4 Crime scene 9
1.8.5 Crime scene investigation 9
1.8.6 Evidence 10
1.9 Methodological framework of the study **10**

1.9.1 Philosophical worldview offered in the study 10
1.9.1.1 Phenomenological worldview 11
1.9.2 Research design and approach 11
1.9.2.1 Case study research design 12
1.9.2.2 Qualitative research approach 12
1.10 Study population and target population 13
1.10.1 Study population 13
1.10.2 Target population 14
1.11 SAMPLING 15
1.11.1 Non-probability sampling 16
1.11.2 Purposive sampling 17
1.12 DATA COLLECTION 18
1.12.1 Literature review 19
1.12.2 Documentary sources 20
1.12.3 Interviews 20
1.12.4 Personal experience 22
1.13 DATA ANALYSIS 23
1.14 DATA INTERPRETATION 25
1.15 TRUSTWORTHINESS OF THE STUDY 25
1.15.1 Credibility 26
1.15.2 Transferability 26
1.15.3 Dependability 27
1.15.4 Confirmability 27
1.16 ETHICAL CONSIDERATIONS 28
1.16.1 Voluntary participation 28
1.16.2 Informed consent 28
1.16.3 Not causing harm to participants 29
1.16.4 Inappropriate use of information 29
1.16.5 Conformity with UNISA policies 29
1.17 RESEARCH STRUCTURE 31
2. CHAPTER TWO: CASH IN TRANSIT ROBBERY BOMBING SCENE . 33
2.1 INTRODUCTION 33

2.2 INVESTIGATION OF A CIT ROBBERY BOMBING CRIME SCENE 34
2.3 OBJECTIVES OF CRIME INVESTIGATION 38
2.3.1 Reconstruction of a crime scene 40
2.3.1.1 Ascertaining the sequence of events 40
2.3.1.2 Determining the modus operandi 41
2.3.1.3 Uncovering the motive 41
2.3.1.4 Determine the actions of the perpetrator 42
2.3.2 Identification 45
2.3.3 The Locard Principle 46
2.3.4 Individualisation 46
2.4 CRIME SCENE 47
2.5 DIFFERENT TYPE OF CRIME SCENES 49
2.5.1 Primary crime scene 50
2.5.2 Secondary crime scene 51
2.5.3 Extended crime scene 52
2.5.4 Macroscopic crime scene 53
2.5.5 Microscopic crime scene 54
2.5.6 Active crime scene 56
2.6 THE VALUE OF A CRIME SCENE 57
2.7 SUMMARY 59
3. CHAPTER 3: THE CRIME SCENE MANAGEMENT OF A CASH IN TRANSIT ROBBERY BOMBING SCENE 62
3.1 INTRODUCTION 62
3.2 NATIONAL INSTRUCTION 6/1999: HAZARDOUS SUBSTANCES, RADIOACTIVE MATERIAL, EXPLOSIVE ITEMS, ARTICLES AND DEVICES AS WELL AS POTENTIALLY EXPLOSIVE ITEMS 63
3.3 NATIONAL INSTRUCTION 1 OF 2015: CRIME SCENE MANAGEMENT 64
3.4 PRINCIPLES OF CRIME SCENE MANAGEMENT AT A CIT ROBBERY CRIME SCENE 66
3.4.1 The planning process 67
3.4.2 Safeguarding the crime scene 67
3.4.3 The measures for taking control of and managing the scene 68
3.4.4 The measures in place to prevent contamination of evidence 69
3.4.5 The examination and processing of the crime scene and all evidence ... 70

3.4.6 Documentation of the crime scene 71

3.5 ROLE PLAYERS IN CASH-IN-TRANSIT ROBBERY BOMBING CRIME SCENE MANAGEMENT 73

3.5.1 Bomb Technician 76

3.5.2 First responder 78

3.5.3 Crime scene examiner 80

3.5.4 Crime scene investigator 82

3.6 PHASES IN CRIME SCENE MANAGEMENT 84

3.6.1 Reporting phase 84

3.6.2 Activation phase 86

3.6.3 Responding phase 87

3.6.4 Control phase 89

3.6.5 Handover phase 91

3.6.6 Planning phase 93

3.6.7 Investigation and Processing phase 95

3.7 Three spheres of the CIT Management Framework 99

3.7.1 Develop contingency plan for management of CIT Robbery Bombing Scene with Stakeholders 100

3.7.2 Responding to CIT Robbery Bombing Scene 100

3.7.3 Managing the actual CIT Robbery Bombing Scene 100

3.8 SUMMARY 101

4. CHAPTER 4: FINDINGS AND RECOMMENDATIONS 103

4.1 INTRODUCTION 103

4.2 SUMMARY OF MAIN FINDINGS 104

4.2.1 Research Question 1: What does a cash-in-transit robbery bombing scene entail? 105

4.2.1.1 Dislocation of evidence due to the blast wave 105

4.2.1.2 Contamination of evidence due to the pursuit of scattered money 106

4.2.1.3 Possibility of secondary bombs and shootout 108

4.2.1.4 Tailored precautionary acts by perpetrators 109

4.2.2 Research Question 2: What is the proper procedure for managing a cash-in-transit robbery bombing scene? 111

4.2.2.1 Activate the relevant role-players as soon as the incident is reported/intercepted 112
4.2.2.2 Cordon-off the crime scene at least 50% from the furthest debris 112
4.2.2.3 First walkthrough to be conducted by a bomb technician wearing a bomb unit 114
4.2.2.4 The stakeholders planning and investigation of the crime scene 114

4.3 RECOMMENDATIONS 118
4.3.1 Framework for managing CIT Robbery Bombing Scenes 118
4.3.2 Specific training of role-players for managing CIT Robbery Bombing Scenes 120

4.4 CONCLUSION 122
5. LIST OF REFERENCES 124
6. ANNEXURES 135
6.1 ANNEXURE A: INTERVIEW SCHEDULE 135
6.2 ANNEXURE B: INFORMED CONSENT PARTICIPANT 139
6.3 ANNEXURE C: UNISA ETHICAL CLEARANCE 144
6.4 ANNEXURE D: INDEMNITY, UNDERTAKING & DECLARATION TO CONDUCT RESEARCH IN THE SAPS 146
6.5 ANNEXURE E: SAPS PERMISSION FOR STUDY TO BE CONDUCTED IN SAPS 147
6.6 ANNEXURE F: SAPS AUTHORISATION OF STUDY TO BE CONDUCTED 149
6.7 ANNEXURE G: EDITOR'S LETTER 150
6.8 ANNEXURE H: TURNITIN DIGITAL RECEIPT 151

LIST OF FIGURES

Figure 1.1: Schematic representation of types of samples used in this study 18
Figure 3.1: Role players in CIT robbery bombing scene 75
Figure 3.2: Phases of crime scene management 84
Figure 3.3: Roles during the reporting phase 85
Figure 3.4: Proper cordoning off of a CIT robbery bombing scene 94
Figure 3.5: Planned sketch of CIT robbery bombing crime scene layout 97
Figure 4.1: Proper cordoning of CIT robbery bombing scene 121

LIST OF TABLES

Table 1.1: Interview schedule outcomes 24
Table 3.1: Procedure for dealing with explosives incident 70
Table 3.2: Documentation to be completed at a crime scene 72
Table 3.3: Indirect role-players in management of CIT robbery bombing scene 73
Table 3.4: Roles and activities during the controlling phase of CIT robbery bombing scene 89
Table 3.5: Conceptual framework for management of CIT robbery bombing scene 99
Table 4.1: Recommended framework for management of CIT robbery bombing scenes 119

LIST OF IMAGES

Image 1.1: The map of South Africa depicting the location of Limpopo Province 14
Image 1.2: The map of Limpopo Province depicting the location of Capricorn and Sekhukhune districts 15
Image 2.1: A typical cash-in-transit robbery crime scene 37
Image 2.2: Ingredients of self-made explosive devices 44
Image 2.3: Demonstration of the preparation of an explosive charge 45
Image 2.4: Primary CIT crime scene robbery with explosives used to force open the cash vaults 51
Image 2.5: Abandoned escape car, processed as a secondary crime scene 52
Image 2.6: Extended crime scene with bullets, DNA, explosives, and other evidence spread over 200m radius 53
Image 2.7: Macroscopic CIT bombing robbery crime scene 54
Image 2.8: Microscopic crime scene 55
Image 2.9: An active crime scene 56
Image 2.10: Photographic evidence 59
Image 3.1: CIT robbery bombing scene cordoned with red danger-tape 68
Image 3.2: Bomb Technicians at a CIT robbery bombing scene 78
Image 3.3: First responder managing a CIT robbery bombing scene 80
Image 3.4: Crime scene examiners attending CIT robbery bombing scene 81
Image 3.5: First responder at a cordoned CIT robbery bombing scene 88

ABBREVIATIONS AND ACRONYMS

CCTV	Closed Circuit Television
CIT	Cash-in-Transit
CJS	Criminal Justice System
CPA	Criminal Procedure Act
CSI	Crime Scene Investigator
DPCI	Directorate for Priority Crime Investigation unit
OCIU	Organized Crime Investigation Unit
PPE	Personal Protection Equipment
SABRIC	South African Banking Research Information Centre
SAPS	South African Police Service
SOPs	Standard Operating Procedures
VISPOL	Visible Policing

CHAPTER ONE: GENERAL ORIENTATION

1.1 INTRODUCTION

There has been at least one cash-in-transit (CIT) heist a day in South Africa since the beginning of 2020 through a violent method according to which heavily armed perpetrators force the CIT vehicle open with explosives, extract the cash and flee the scene (Mahamba, 2020:1). The bombing of CIT vehicles while transporting cash has become an extant policing challenge which endangers the lives of the entire society, depending on who is in the vicinity of a CIT van when it is bombed. According to Martin (2014:125), most of the bombs used by criminals are self-constructed, improvised weapons derived from commercially available explosives.

The use of explosives (bombing) on CIT vehicles with the intention of stealing cash is rampant, posing a threat to the entire society as well as the responding police personnel. According to statistics by the South African Banking Risk Information Centre (SABRIC), injuries suffered by cash-in-transit guards in 2018 increased by 82%, while civilian casualties increased by 200% due to the bombings of CIT vehicles. In the same vein, SABRIC (2020:14) further shows that cash-in-transit robberies decreased by 16% in its 2019 crime statistics report. Gerber (2018:np) estimates that such cash-in-transit heists in which cash-carrying vehicles were bombed resulted in cash losses of R470 million in 2018. Burgess (2018:5) reveals that criminals use explosives and blow up the CIT vehicles in order to gain access to the money inside the heavily armoured safes inside these vehicles. Therefore, the accessibility of explosives has provided the criminal element of society with a lethal weapon (Saferstein, 2011:510).

Recently, in South Africa, the dangerous use of explosives in CIT robberies has become commonplace (Burgess, 2018:5). Meanwhile, Limpopo Province witnessed a 300% increase in the use of explosives for committing CIT robberies during the 2017/18 financial year (Statistics South Africa/StatsSA, 2018). On the other hand, the recent statistics by SABRIC (2020:14) indicated that CIT robberies in Limpopo Province still increased by 7% despite an overall decrease in crime during the Covid-19 lockdown period. The modus operandi of these CIT robberies varies according to a variety of circumstances and conditions. For example, some CIT

robberies are committed on public roads, and these commercial or self-constructed explosives are sometimes overcharged and endanger people's lives and property.

Most of the media reports on the CIT bombings place more focus on the tracing and subsequent arrest of suspects. Regrettably, there is scant mentioning of the successful arrest, prosecution, and conviction of the perpetrators, which rely mostly on comprehensive crime scene management during the investigation phases of the committed CIT crime. In terms of the Explosives Act (No. 26 of 1956), no person shall keep, store or be in possession of any authorised explosive in, or on any premises-unless authorised thereto by a permit issued by an inspector, and the explosive be kept in quantities not exceeding 500 kilograms and stored in an isolated place approved by an inspector under conditions prescribed in writing by an inspector (South Africa, 1956).

A court of law can only successfully convict perpetrators for detonating explosives in public, endangering lives and properties based on the available evidence and exhibits. In that regard, there should be proof beyond reasonable doubt that explosives were definitely utilised to conduct a crime. Such sensitive evidence can only be gathered in the first phases of crime scene management. Several media reports have shown that after each cash-in-transit vehicle bombing in some instances, people in the vicinity often rush to collect the scattered pieces of cash denominations and the police do not promptly cordon off the area for proper control and management of the entire crime scene (Karrim, 2020:np).

1.2 PROBLEM STATEMENT

The problem identified in this study constitutes the core of this research and explains the researcher's overall intentions (Kumar, 2019:46, Leedy & Ormrod, 2015:49). The formulation of the problem statement for this research was based on the difficulty experienced by the researcher in his practical capacity as a Bomb Technician, and from the information obtained during the preliminary literature review (Creswell & Creswell, 2018:102; Salkind, 2012:104). Therefore, the formulated problem statement was initiated to obtain possible solutions to the existing problem.

Cash-in-transit robbers are classified as exclusive criminals with no respect for life, and use extreme violence in executing their increasing criminal deeds (Lochner, Horne & Van Wyk, 2018:1). These forms of heinous crimes (CIT vehicle robberies) have shown an increase in 2017 from 152 incidents to 238 robberies in 2018 countrywide (Stats SA, 2018:1). In contrast, SABRIC (2020:14) argued that there was an overall downward trend in CIT bombings, which was attributed to the sustained collective efforts between police and the CIT security companies that was facilitated in May 2018 to address CIT robberies. In that regard, CIT robbery incidents decreased by 16%, from 290 incidents in 2018 to 243 incidents in 2019 (SABRIC, 2020:14).

The problem in this study is that researcher' has observed that CIT crime scenes at which explosives were used to bomb the CIT vehicles were often not properly managed, and there were also no specific guidelines followed during the investigation of these scenes. A Bomb Technician has to collect residual explosives and remnants which can be produced as evidence in court to prove that an explosion has actually occurred. At every CIT robbery scene, there is a possibility of unexploded bombs which might pose a danger to evidence collectors, security personnel and the general public. It is from this phenomenological perspective that the researcher realised the need to evaluate the management of cash-in-transit robbery bombing crime scenes (Neubauer, Witkop & Varplo, 2019:91).

The management of any crime scene is a complex activity that includes numerous stages and actions (Lochner & Zinn, 2015:7). The researcher has further observed that the use of explosives in each CIT robbery in the Limpopo Province is not followed by proper crime scene management procedures. Additionally, the first responding officers to the crime scene do not determine the status of the scene, do not secure the scene, and do not make information available to bomb experts or technicians as they should. Furthermore, these crime scenes are not declared safe by bomb experts before the scene is managed, searched and investigated to find evidence.

From experience, the researcher can attest that explosives do not necessarily explode at the first attempt. This means that the lives of police officials and the public are in danger during the investigation of the crime scene in the event that there is

an entry to the scene before it is declared safe by a Bomb Technician (Liebenberg, 2019:np). The problem of poor CIT crime scene management is compounded by tampering prior to Bomb Technicians declaring such a scene safe and collecting evidence linked to explosives. Although there is minimal literature on this problem, it can also be attested by the close-up pictures found on the internet and social media regarding unprocessed CIT robbery explosion scenes (News24, 2018:np).

It is also a fact that explosives or explosives residue can be presented as evidence during trials, and that this evidence can only be collected by trained Bomb Technicians. The management of the CIT crime scene is of utmost importance for enabling Bomb Technicians to collect evidence. In this regard, Lochner and Zinn (2015:137-138) mentioned that scenes where explosives were used, should be managed as a field of specialisation, and police should assume that there could still be unexploded bombs at the scene. Emanating from his experience as well, the researcher has observed that this issue was raised in the incident reports of bomb disposal specialists, compiled after each cash-in-transit bombing. The latter state of affairs has not changed. During meetings with SAPS explosive technicians at provincial and national level (including with the researcher), the current situation was also tabled. Regrettably, the researcher also observed that no policy changes have occurred concerning the management of CIT robberies in which explosives have been used. The next section discusses the study's delimitation.

1.3 DELIMITATIONS OF THE STUDY

Delimitations refer to the limitations or boundaries of exclusions which are set and determined by the researcher to render the study's aims and objectives achievable (Henning, 2018:12; Theofanidis & Fountouki, 2019:157). In that regard, the current study focused on the management of CIT crime scene investigations where explosives were used to forcefully extricate the mounds of cash lodged in its secure vault. The current study does not include other CIT robberies where the use of bombs or explosives constitute the most observable modus operandi. This study was further confined to the physical roles of police officials at such CIT robbery bombing scenes, and excluded other external stakeholders such as private security companies and personnel involved. Following the establishment of the research

problem and its stated delimitations, the next section addresses the aim of the research.

1.4 AIM OF THE RESEARCH

Bless, Higson-Smith and Sithole (2013:42) and Kumar (2019:485) describe the research aim as the foremost reasons advanced for conducting the research. Accordingly, the aim of this fundamentally qualitative study is the researcher's statement of intent to the readers and inform them of the study's declared achievement or goal (Gray, 2014:204; Kumar, 2019:330; Mills & Birks, 2014:204). It is the above regard that the aim of this research is: To evaluate the management of cash-in-transit robbery bombing crime scenes in Limpopo Province. Based on the outlined aim of this research study, the following section then explains the fundamental purpose thereof.

1.5 PURPOSE OF THE RESEARCH

Creswell (2014:124) and Lichtman (2014:38) contend that there are three major purposes in social research, namely: evaluation, exploration, description and explanation. On the other hand, Mills and Birks (2014:204) articulate that the purpose of research basically underpins the researcher's desire to solve a practical problem in order to improve a current problematic state of affairs. For this study, the researcher considered description, evaluation, exploration and empowerment, and developing good practice as the purposes of the study; as discussed hereafter.

1.5.1 Description/Explanation

Kumar (2019:331) argue that the purpose of description or explanation in research is generally used in social problems to represent or analyse the facts where the researcher does not have any control over the parameters or variables. The researcher intended to clearly describe the correct procedures according to which a CIT bombing crime scene should be managed. The crime scene management procedures are intended to eliminate the fatal risks faced by police officials and the public, and to prevent evidence being contaminated, lost, destroyed or not admitted during a trial.

1.5.2 Evaluation

According to Kale and Jayanth (2019:30), evaluation of existing procedures and techniques and subsequently recording the findings is a crucial way to plan and manage the process of a literature search. In this regard, the study evaluated existing literature, SAPS National Instructions, policies, and Standard Operating Procedures (SOPs) regarding the management of crime scenes in relation to CIT bomb explosion crime scenes.

Furthermore, this study evaluates the degree to which legal procedures pertaining to the management of CIT explosion scenes could be enhanced for purposes of ensuring the safety of CIT crime scene investigators and the general public. The researcher evaluated the crime scene management at CIT robbery bombing scenes to further determine the efficiency and effectiveness of the prescribed procedures. The study also evaluates the strengths and weaknesses of the current procedures in order to recommend best possible practice of managing CIT crime scenes where explosives were used.

1.5.3 Exploration

Exploratory qualitative studies are often conducted to develop, refine and test procedures, policies, and tools (Kale & Jayanth, 2019:9). The researcher sought to explore the management of a CIT explosion crime scene. Accordingly, local (South African) and international literature was explored to investigate new information and methods pertaining to management of the CIT crime scenes at which explosives were used. Empirical evidence was also obtained to further explore and understand the current situation with the view to finding viable solutions to the problem as the basis for making valid recommendations.

1.5.4 Empowerment and developing good practice

Bless et al. (2013:16), argue that scientific research is able to generate accurate information pertaining to an investigated phenomenon or situation. The researcher believes that this study would reasonably make a direct or useful contribution to this high-priority-field in the public and private sectors. The findings of this study could be used to empower the researcher, South African society, the body of knowledge and academia; as well as the South African Police Service as discussed below to

better understand how a cash-in-transit robbery bombing crime scene should be properly managed.

1.5.4.1 South African Society

The success rate of criminal prosecution is envisaged to increase, based on the management of CIT bombing crime scenes in accordance with the prescribed correct procedures. This would decrease the vulnerability of the public to possible injuries during a CIT robbery incident. South African society would benefit from information regarding the dangers of unexploded bombs and resultant contamination of evidence on a crime scene. As such, the study's findings are also an enhancement of law and order maintenance in society, and support to the criminal justice system (CJS) regaining the respect and trust of society.

1.5.4.2 The body of knowledge and academia

Currently, there is very limited information concerning the best management of CIT crime scene explosions, except for training offered specifically to Bomb Technicians. Therefore, all the good practices related to CIT crime scene investigation and management are explored and consolidated on the basis of the findings and recommendations accruing from the study, which will be available online and in libraries for referral purposes and further research studies. Such information can also be used in curriculum development and enhancement of training programmes and initiatives, as well as inspire other researchers for further in-depth research on similar topics findings. Therefore, this study forms part of future literature in the field of CIT crime scene investigation and management.

1.5.4.3 The South African Police Service

The study enhances the law enforcement officials' knowledge and skills regarding the management of CIT robbery bombing crime scenes. As such, policies and procedures should be updated, and training manuals should also be designed to map the procedures according to which CIT bombing crime scene should be managed. Criminal cases should be finalised promptly, and evidence collected should be admissible during trial or hearings. The findings of this study have

established the need to improve good practice regarding the management of CIT explosion sites. Furthermore, the study has generated new knowledge that could empower other researchers, police officials, crime scene investigators, and bomb scene technicians on the management of CIT explosion scenes.

1.6 RESEARCH OBJECTIVES

The objectives of research are situated in finding solutions to unsolved problems using scientific procedures in order to find out and understand the hidden or undiscovered truth regarding the manifestation of various phenomena and their implications scientifically (Kale & Jayanth, 2019:3). In that regard, this study has the following research objectives:

- To explore and describe a cash-in-transit robbery bombing scene; and
- To determine the proper procedures for managing a CIT robbery crime scene in which explosives were used to forcefully open the CIT van's cash vaults and extricate the money secured safely therein.

1.7 RESEARCH QUESTIONS

Bertram and Christiansen (2014:38), Kumar (2019:485) and White (2017:33) argue that a researcher's questions are based on his/her own experience in the field of practice, and that these research questions form the basis of the research aim. The below-mentioned research questions were formulated according to the advice proffered by Bryman, Bell, Hirschsohn, Dos Santos, Du Toit, Masenge, Van Aardt and Wagner (2014:89) in terms of flexibility, clarity, intelligibility, researchability, and contribution to knowledge on the current research topic:

- What does a cash-in-transit robbery bombing scene entail?
- What is the proper procedure for managing a CIT bombing crime scene in which explosives were used?

1.8 DEFINITION OF KEY THEORETICAL CONCEPTS

Definitions are formulated according to the meanings which the researcher intends to attach and communicate in the context of the specific research project (Fox & Bayat, 2014:140). For this reason, the following thematically linked concepts were

identified for particular clarification and emphasis in relation to dominant literature-supported propositions.

1.8.1 Bombing

Thobane (2014:21) defines bombing as an act of unlawfully detonating an explosive device with the intention of causing maximum damage. Robbers in cash-in-transit vehicle use explosives with the intention to forcefully and violently extricate the mounds of cash that is safely secured in the vaults of the CIT vehicles.

1.8.2 Cash-in-transit

Cash-in-transit refers to the transportation of bulk cash using private security services such as armoured vehicles, and armed guards for delivery at specified destinations or centres (Thobane, 2014:5, 24).

1.8.3 Cash-in-transit robbery

SABRIC (2010:6) defines cash-in-transit robbery as an intentional, unlawful and very violent method of taking cash while under the control of a security company, and includes incidents occurring inside or outside a bank or other premises. On the other hand, Thobane (2019a:34) proffers that CIT robbery is an extreme form of robbery involving extreme violence during which security personnel charged with the safe delivery of bulk of cash are attacked by these robbers who are in possession of explosives intended to blow the CIT safe open to forcefully extricate the cash therein.

1.8.4 Crime scene

According Lochner and Zinn (2015:10), a crime scene is the place at which the crime has been committed and relevant evidence is collected to steer the investigation forward.

1.8.5 Crime scene investigation

Shiel (2018:1) explains that crime scene investigation involves a systematic search and meticulous observation and documentation of the scene of a crime; photography and sketching of the scene; the identification, processing and

collection of physical evidence for analysis and, the application of careful reasoning to the facts attendant to the particular crime committed at the same place.

1.8.6 Evidence

Hess and Orthmann (2010:122) intimate that evidence is anything real that can be seen, touched, smelled, or tasted that helps to establish the facts of the case for identification, apprehension, and conviction of offenders.

1.9 Methodological framework of the study

A methodological framework of a study encompasses the methods which researchers select, the reason/s for such selection, as well as the expected outcomes of such methods (Kumar, 2019:57, 197). The methodological framework in this research study is guided by philosophical principles and perspectives/paradigms to which the researcher is aligned, including the various stages, processes, procedures, and choice that were applied throughout the particular research study (Birks & Mills, 2015:4; Silverman, 2014:54).

The researcher is of the view that the methodological framework assists a scholar to choose the appropriate research methods guided by the entrenched philosophical assumptions. Moreover, Henning (2018:17) and Kumar (2019:5) explains that methodology serves as a yardstick to answer the research questions while explaining the relevant methods that can be utilised by the researcher to collect pertinent data for the study. Furthermore, Leedy & Ormrod (2019:373-374) explain that each research report should clearly state the methodologies and procedures pursued in the particular study, as well as how the results were obtained. The next section describes the philosophical worldview offered in the study.

1.9.1 Philosophical worldview offered in the study

Leedy and Ormrod (2019:8) explain that philosophical orientations or worldviews provide a researcher with different directions and orientations in their quest to understand their physical, biological, social and psychological worlds. A philosophical worldview also refers to the personal experiences, views, and philosophical orientations which the researcher upholds prior to, and throughout the

study (Creswell, 2014:6; Leedy & Ormrod, 2019:11). Furthermore, the researcher should encompass their philosophical worldviews to unpack and provide possible answers concerning ways of knowing about, and perceiving the world, reality and phenomena through theories and experience (Creswell, 2014:6).

Kumar (2019:23) and Creswell (2014:6) further outline that philosophical world views are the foundational set of beliefs and perspectives that may stem from one of the several paradigms and approaches in research. These paradigms include the positivist, interpretive, phenomenological, and action or participatory, all of which are applicable in accordance with the academic discipline in which the researcher has been trained. In this study, the researcher's worldview is inextricable to the sampled participants' experiences and perspectives regarding the proper management of CIT robbery bombing crime scenes. Therefore, phenomenology is viewed as a relevant worldview in this study.

1.9.1.1 Phenomenological worldview

Leedy and Ormrod (2019:233) explain that phenomenology as a philosophical worldview refers to a person's perceptions and perspective about the meaning of an event or situation. Therefore, the phenomenological philosophical worldview underpins this study, given the focus on the participants' experiences concerning the phenomenon of CIT robberies in which explosives have been used. It is on the basis of its phenomenological orientation that the study was enabled to answer the research questions concerning the real-life manifestations of CIT bombing scenes (Leedy & Ormord, 2019:9).

1.9.2 Research design and approach

The research design and approach optimally respond to, and guide the research questions through a structured integration of the study's philosophical premises, collection of data methods and analysis processes in relation to the research problem (Kumar, 2019:39). Such an orientation is also referred to as the blueprint, master plan or preferred strategy of the researcher (Mohajan, 2017:2). Furthermore, Flick (2018:45) also concedes that a good research design and approach renders the research manageable in resources and time, while also providing clarity in decisions about sampling and clarity of methods that are used. This section

discusses the case study research design and qualitative approach as employed in this study.

1.9.2.1 Case study research design

Mouton (2011:55) describes research design as a plan or blueprint of how the researcher intends to conduct the research. Kumar (2019:94) submits further that the research design is a procedural plan that is adopted by the researcher to validly, objectively, accurately and economically respond to the research aim and questions. On the other hand, Walliman (2011:9) then clarifies that research design articulates how the research is to be conducted, and encapsulates a range of research methods which are used to collect and analyse the type of data that is generated by the research study.

Kumar (2019:196) informs that a case could refer to a group or single unit of individuals activities, policies, projects, or systems that subject to being studied through the use of more than a single method. In this regard, the researcher has included Bomb Technicians employed by the South African Police Service in the Limpopo Province as representative cases of experiences they share in relation to the research problem. The focus was on exploring and understanding cases, and not to quantify information in that regard. In this study, the case study research design is most appropriate since it encourages the use of interviews as a mechanism to collect ‘cases’ of participants’ experiences and knowledge in the context of the research topic; and answers to the research questions (Yin, 2014:110). Empirical evidence was gathered utilising a range of data collection methods such as a literature study, telephonic interviews and the experience of the researcher (Bak, Blom & Tan, 2017:15). A case study design was found to be a useful design when exploring an area of knowledge about which little is known (Kumar, 2019:196). The researcher asserts that there exists sparse research in the realm of the problem under investigation.

1.9.2.2 Qualitative research approach

The qualitative research approach basically focuses on studying the complexity of phenomena that occurs in naturalistic settings without simplifying or quantifying the observed phenomena (Leedy & Ormrod, 2019:228). Through the qualitative

research approach, the researcher is able to ask questions in order to obtain in-depth information from participants who have experienced the problem under investigation in the real-world context (Punch, 2014:2). It is in this regard that the researcher opted for a qualitative approach in order to obtain the participants' views and opinions regarding their experiences and challenges with regard to CIT bombings (De Vos, Strydom, & Delport, 2011:65; Leedy & Ormrod, 2019:228).

The qualitative research approach provides an opportunity for the researcher to develop a good understanding of the real-life experience and behaviour of the participants in their natural settings (Bouma, Ling & Wilkinson, 2012:17). From the verbatim responses and natural surroundings of the participants (experienced Bomb Technicians involved in CIT bombing crime scenes), the researcher was able to examine, explain, and evaluate how a cash-in-transit robbery bombing crime scene should be managed effectively. The next section presents discussions on the study population and target population.

1.10 Study population and target population

The terms, "population" and "target population" set boundaries for the study unit, and refer to individuals in the universe who possess specific characteristics relevant to the study (Kumar, 2019:483). The population and target population in this study are outlined overleaf.

1.10.1 Study population

The population of a study refers to the larger group of individuals, units, objects or activities and serves as a point of reference from which smaller representative segments or sample populations could be drawn (Terre Blanche, Durrheim & Painter, 2016:133). In addition, Creswell (2014:142) intimates that the population of the study is a group of individuals, elements, or objects with the same characteristics that the research focuses on, in order to resolve the research problem and achieve the stated objectives of the research. The population of the current study are all the Bomb Technicians from the SAPS Explosives Section in Limpopo Province who are involved in the investigation of cases of cash-in-transit robbery bombing scenes. In total, there are only thirteen such competent Bomb Technicians in the entirety of

Limpopo Province, whose location on the South Africa map is shown in Image 1.1 below.

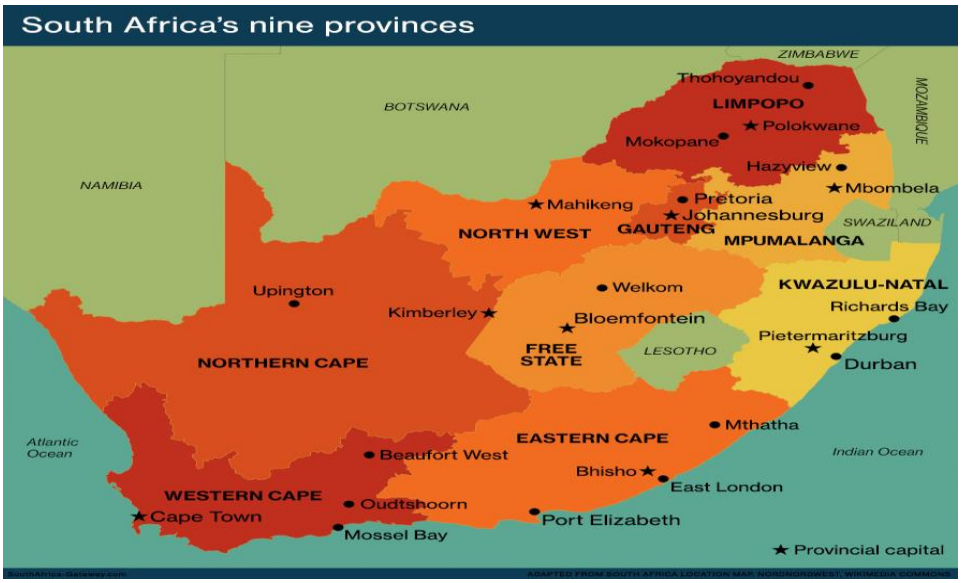


Image 1.1: The map of South Africa depicting the location of Limpopo Province
(Source: South Africa Getaway, 2021:1)

The Limpopo Province is demarcated into five (5) districts namely Vhembe, Capricorn, Mopani, Greater Sekhukhune and Waterberg. As argued by Bless et al. (2013:98), it is utterly impossible to study the whole population. Accordingly, the researcher selected a target population from the entire population since this problem is experienced by the researcher as a Bomb Technician at the Explosives Section of the SAPS in Polokwane. The next section outlines the target population of the study.

1.10.2 Target population

The researcher established a target population in this study due to the fact that it is impossible and unfeasible to involve all members of the population in a research project (Creswell, 2014:142). The target population refers to the smallest group of the study population from which the researcher draws inferences based on the homogeneity of specific qualities, traits or attributes (Mouton, 2014:135).

The target population for this study comprises all three (3) Bomb Technicians from the Explosives Section of the SAPS in Polokwane office which serves both the Capricorn and Sekhukhune districts. These technicians are involved in the

investigation of cash-in-transit robbery bombing cases. The researcher chose Polokwane in particular since it is his place of employment and residence, and the location of the identified research problem. It was also economical, saving time and effort to conduct this study in the Capricorn and Sekhukhune districts, whose location is shown on the map of Limpopo Province in Image 1.2 below.

Image 1.2: The map of Limpopo Province depicting the location of Capricorn and Sekhukhune districts

(Source: Municipalities of South Africa, 2022:1)

1.11 SAMPLING

Alvi (2016:18) and Kumar (2019:164) explains that sampling is the process of selecting a few units or sub-sets from the bigger group as the basis for estimating or predicting the prevalence of an unknown piece of information, situation or outcome regarding the bigger group. Alvi (2016:11) maintains that a sample refers to a group of a relatively smaller number of people selected from a population for investigation purposes, whereas Flick (2018:160) posits that sampling refers to the selection of cases or materials for the study from a larger population or variety of possibilities.

According to Maxfield and Babbie (2014:186), the basic principle of sampling is identification of the necessary elements from which the sample is actually selected. Meanwhile, Patton (2015:65) asserts that the purpose of sampling involves the selection of a small number of key cases to harvest the most relevant information that has the utmost impact on the expansion of knowledge. Furthermore, Leedy and Ormrod (2015:97) maintain that in qualitative research, the sample involves a few participants who can shed the best light on a phenomenon.

According to Miles, Huberman, and Saldana (2020:26-27), a sampling plan is necessary to help the researcher in demarcating the study and creation of a conceptual framework commensurate with the processes and concepts underpinning the study. In qualitative research studies, sampling tends to be more strategic and purposive as the study focuses on a case's unique contexts (Miles et al., 2020:28). Consonant with the afore-cited sampling perspectives posited by Leedy & Ormrod (2015:97), Miles et al. (2020:26-28) and Patton (2015:65), researchers are apt to adopt the probability (random) or non-probability (non-random) sampling methods. It is in that context that the researcher adopted the non-probability sampling methods for the selection of participants for interviewing purposes in this study. A discussion on the non-probability sample methods follows hereinafter.

1.11.1 Non-probability sampling

Non-probability sampling is utilised for selecting the appropriate cases from a known reservoir of cases (Flick, 2018:53). In the same vein, Leedy and Ormrod (2019:177) propound that some members of the population have no chance of being sampled in the case of non-probability sampling. Flick (2018:50) mentions that each unit in non-probability sampling should have interesting features, experiences in greater intensity. Such a sampling emphasis was advantageous because this research study is focused on experienced Bomb Technicians with expertise in managing CIT robbery bombing scenes.

According to Leedy and Ormrod (2019:177-178), there are several types of non-probability sampling methods that researchers use, including accidental/ convenience, purposive, quota, dimensional, target, snowball, spatial, theoretical, deviant case, volunteer, and key-informant sampling. In accordance with the views expressed by Leedy and Ormrod (2019:177-178) and Flick (2018:50-53) regarding the various types of non-probability sampling methods, the researcher then utilised purposive sampling as the non-probability sampling method in this study. This sampling method is discussed in detail below.

1.11.2 Purposive sampling

According to Kumar (2019:335), purposive sampling is the selection of people with demonstrated or known expertise in the area of interest to the researcher to become the core basis of data collection. Furthermore, Kumar (2019:335-336) also argues that where the sample is a group of experts from whom the researcher seeks the required information, the purposive sampling is similarly referred to as expert sampling. In purposive sampling, the researcher purposefully chooses participants on the judgement that they would be able to provide information-rich data (Creswell, 2014:100). In that regard, the three (3) competent Bomb Technicians within the Polokwane Explosives section would be able to provide such data.

The three interviewed Bomb Technicians were experts, with relevant training and National Qualifications Framework (NQF) 6 qualification in law enforcement. They also managed other Bomb Technicians as part of their duties and profiles. In light of the above discussion on purposive sampling, the researcher undertook purposive sampling in this study to sample the following participants on the basis of their profiles as indicated below:

- **Bomb Technician A**: Fifteen years' experience as a police official, with 12 years as a Bomb Technician, has a Diploma and B Tech Degree in Policing, has completed Basic Bomb Technician Course, Basic Explosives Control, and Post Blast Investigation course amongst other relevant courses;
- **Bomb Technician B**: Twelve years' experience as a police official, with 9 (nine) years as a Bomb Technician, has a Diploma in Security Risk Management, has completed Basic Bomb Technician Course, Basic Explosives Control, and Post Blast Investigation course amongst other relevant courses; and
- **Bomb Technician C**: Twelve years' experience as a police official, with 9 (nine) years as a Bomb Technician, has a Diploma in Police Management, has completed Basic Bomb Technician Course, Basic Explosives Control, and Post Blast Investigation course amongst other relevant courses.

The above-mentioned participants have been purposively identified as they have particular knowledge and expertise on the functionality of bomb disposal, as well as crime scene management. This is referred to as Sample A and consists of three

Bomb Technicians. A schematic representation of non-probability sampling processes is depicted in Figure 1.1.

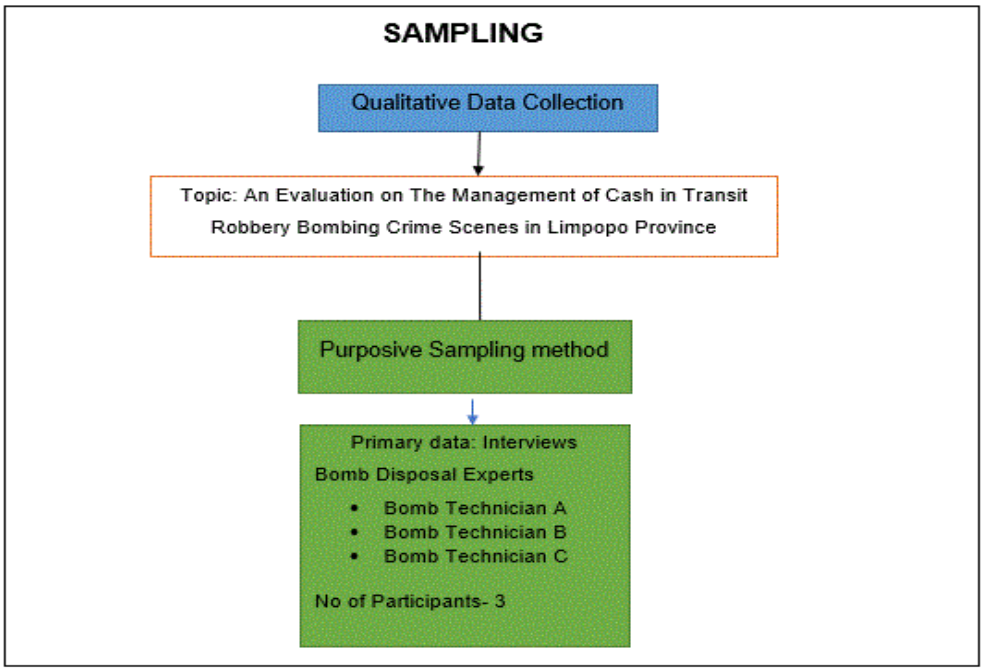


Figure 1.1: Schematic representation of types of samples used in this study
(Source: Compiled by researcher)

1.12 DATA COLLECTION

According to Kumar (2019:238), data collection is a technique used by researchers to physically obtain primary and secondary data to be analysed in a research study. For the purpose of this qualitative study both primary and secondary data were used to collect data as guided by Leedy and Ormrod (2019:241). Primary data refers to the information collected for the specific purpose of a study either by the researcher or by someone else through interviews, observations (Kumar, 2019:342). Furthermore, Kumar (2019:347) explains that secondary data, on the other hand, often refers to the information that is required but already available in other sources such as journals, previous reports, censuses. The researcher extracts such information for the specific purpose of addressing various inter-related aspects of the study.

Primary data was gathered from the researcher's own experiences as well as through the interviews with the sampled participants. Secondary sources such as recent academic books, journal articles, the internet, relevant legislation, and online databases were explored to find qualitative data related to the management, of

cash-in-transit robbery crime scenes. The researcher further obtained information from relevant SAPS materials, such as National Instructions regarding crime scene management, as well as explosion scenes and post-blast investigation. Literature sources were then combined with the information obtained through other data gathering techniques and reported in this research document. These techniques are discussed in further depth in the following sections.

1.12.1 Literature review

A literature review is the methodical consultation and processing of published studies and scientific discoveries on a certain issue from secondary sources such as conference papers, academic publications, other researchers' articles, records, newspapers, internet articles, and databases (McGregor, 2020:2; Kabir, 2016:205). The purpose of literature review is to provide a sound overview of existing research findings to indicate to the reader that the researcher is familiar with recent developments and to provide insight into previous work (Fox & Bayat, 2014:36). The literature review for this study evaluated, organised, and synthesised what other researchers have previously written or said about the phenomenon under research as indicated by Leedy and Ormrod (2015:85).

The researcher conducted a literature search on Google Scholar and the Unisa library by using key words such as 'bombing crime scenes', 'evidence', 'bombing residue', 'cash-in-transit robberies,' 'robberies', 'crime scene', 'crime scene investigation', 'explosives' and 'crime scene management'. It was established that recent studies by Burgess (2018:5) and Sewpersad (2010) focused on the bombing of ATMS, while Thobane (2014:25) and Thobane (2019:34) evaluated the criminal career of CIT robbers, and Lochner et al. (2018:1), explored the modus operandi profile of the CIT robbers. However, all these researchers did not specifically examine the crime scene management at a CIT robbery explosion site.

The researcher further consulted the UNISA and SAPS libraries, the Polokwane Municipal Library, legal databases, as well as the internet for focused information pertaining to crime scene management at a CIT explosion robbery site. As far as the researcher is aware, this field has not yet been adequately researched in South Africa.

1.12.2 Documentary sources

In the context of this study, documentary sources are a type of secondary information in the sense that they are written accounts in copies or documents created by someone else (Terre Blanche, Durrheim & Painter, 2016:26). The consultation and contemporaneous examination of documentary sources pertains mostly to official government policy, reports, and legal sources, in addition to the review of more academically and intellectually predisposed literature (Grove, Burns & Gray, 2013:271; Terre Blanche, Durrheim & Painter, 2016:26).

To a significant extent, documentary sources constitute a sort of data triangulation that expands the researcher's secondary pool of information. Given the nature of management of a CIT robbery bombing scene, certain records and cases are likely to be classified, while others would be made public. The researcher has consulted (but not limited to) the following sources for the proposed study's documentary sources:

- The SAPS Act (No. 68 of 1995), for the legislative mandate relating to crime scene investigation by police officials;
- The Criminal Procedure Act (No. 51 of 1977 as amended), for guidance on procedures for search and seizure at a crime scene;
- The SAPS National Instruction 6/1999 which regulates the handling of hazardous substances, radioactive material, explosive items, articles and devices as well as potentially explosive items; and
- The SAPS National Instruction 1 of 2015 which regulates Crime Scene Management.

1.12.3 Interviews

Barbour (2013:132) highlights that interviews are the golden standard in qualitative research. The researcher utilised qualitative interviews since they allow the participants to narrate their own experiences using their own words (Lichtman, 2014:248). In addition, Leedy and Ormrod (2019:245) argue that researchers have greater potential of success in their studies when they prepare an interview schedule which has possible follow-up questions. In order to elicit in-depth accounts from the participants regarding their perception of the problem under investigation,

the researcher compiled an interview schedule direct his semi-structured in-depth interviews with the selected participants (Kumar, 2019:239; Terre Blanche et al., 2016:26).

The interview questions were flexible in structure, in-depth in their search, and the open-ended questions were free from any rigid boundaries. This approach provided rich information as experienced by the participants. The questions allowed the participants to explain their understanding of the problem in the real world. Furthermore, the open-ended questions allowed the researcher to probe for more detailed responses when uncertainties arose (Kumar, 2019:239). Questions were formulated in tandem with the problem under investigation, the aim and research questions, as well as the information obtained from literature. The same questions were asked to all the participants except for probing questions and where clarification was needed. The latter was useful in the enhancement of the study's trustworthiness.

For administratively procedural and ethical reasons, the researcher then formally notified all of the sampled participants and their respective institutional authorities, requesting permission to include them in the study. To that end, prior to the in-depth interviews, information sheets and informed consent forms were used as part of the notification procedure. According to the University of South Africa's (UNISA) COVID-19 risk-adjusted methodologies, which limit direct researcher-participant interaction (UNISA, 2020:1), the researcher conducted online interviews with the selected participants by utilising the Zoom meeting computer-based technologies.

The researcher further planned the interviews according to recommendations by Leedy and Ormrod (2019:247-249) as follows:

- The researcher identified the general and possible follow-up interview questions in advance, also considering the background of the participants and its likely influence on their responses. The researcher also ensured that the sample included only participants who would contribute meaningful information to the study;
- The interviews were conducted through the Zoom online meeting platform and audio-recorded the proceedings with the participants' consent; and

- The Covid-19 protocols were always adhered to, thus ensuring the safety of the participant and the researcher.

A pilot study was conducted with two (2) senior bomb disposal experts prior to the actual Zoom-based interviews. These participants did not form part of the target population in this study. A pilot study is often performed to test the feasibility of techniques, methods, questionnaires, interviews and how they function together in a particular context (Doody & Doody, 2015:1074). It can also reveal ethical and practical issues that could hamper the main study (Doody & Doody, 2015:1075). Therefore, pilot studies assist researchers identify design flaws; refine data collection and analysis plans; train researchers and their research teams in gaining experience; enable researchers' assessment of recruitment processes, and their learning of important information about participants' burden prior to undertaking the larger study (Kumar, 2019:33).

The exclusion of the two (2) senior bomb disposal experts prior to the actual Zoom-based interviews is based on the fact that the pilot research is essentially a pre-testing/pre-implementation/preliminary instrument to test, among other factors, the feasibility and truthfulness of the questions in order to focus on what they were designed to assess in the first place (Showkat & Parveen, 2017:2). The benefit of using pre-tested interview questions is that it allows the researcher to fine-tune any questions before implementing the final interview schedule during the final phase of interviews. There were no serious concerns that necessitated any revisions to the main study's final interview schedule. In the section below, the researcher explains the significance of his own experience in relation to the study's data collection architecture.

1.12.4 Personal experience

Creswell and Creswell (2018:83), Lichtman (2014:44), Mills and Birks (2014:186) and White (2017:33) acknowledge that a researcher could use his/her own experience and personal understanding as contributory and useful factors in the study's information-gathering profile or architecture. Therefore, in this study the researcher maintained a neutral stand with regards to his experience. This approach limited unnecessary bias and imposition of his views on the study

outcomes. The researcher is a member of the South African Police Service for an uninterrupted period of 12 years to the present. The researcher is currently attached to the Explosives section, and stationed at the Forensic Division in Limpopo Province. He is also an experienced investigator, having joined the Detective Unit in 2011 and has worked in the detective section for a period of five (5) years.

In the six (6) years as a Bomb Technician, the researcher worked in the Capricorn and Sekhukhune districts, as well as the entire province of Limpopo as a bomb disposal investigator and performing bomb disposal duties on a variety of cases in which explosives were used to forcefully open cash-in-transit vehicles. Over time, the researcher has seen a significant growth in bombing crime scenes in the Polokwane region, as well as ever-changing methods of CIT bombings by criminals. Furthermore, the researcher is actively employed on post-blast investigations at CIT robbery bombing scenes. It is against this synoptically presented background that the researcher is primarily interested in discovering new ways of crime scene management in CIT bombing incidents, based on his expertise as a bomb disposal specialist.

1.13 DATA ANALYSIS

In essence, data analysis is the systematic process of organising, structuring, and processing the collected data and converting it in intelligible form according to its patterns, frequencies, and intensity of occurrence as interpreted by the researcher (Leedy & Ormrod, 2015:159). As argued by Fox and Bayat (2014:104) and Thomas (2013:234), the data collected in this research was analysed systematically, and themes, patterns as well as trends were identified by using the spiral method (Davies & Francis, 2018:54). To analyse the data, the researcher considered the following guidance from Leedy and Ormrod (2015:158-159), and Leedy and Ormrod (2019:349-351):

- **Organisation**: The data was organised by utilising a computer database in a structured manner. The researcher sifted through the information by means of sentences (Leedy & Ormrod, 2015:158-159).
- **Perusal**: The collected data was perused several times for better understanding of the content.

- **Classification**: The data was classified after perusal and grouped into thematic categories for intelligibility and meaning making.
- **Synthesis**: Upon classification, the data was then synthesised and integrated into summaries derived from the corresponding themes.
- **Deduction**: By studying and integrating the empirical (interview-based) and literature information and facts, the researcher was then able to establish credible and valid answers to the research questions posed. This ultimate outcome enabled the researcher to also formulate findings and recommendations that were not peripheral to the research questions (Leedy & Ormrod, 2019:350).

The following table depicts the outcomes of the interview schedule with the participants, including their work experience, gender as well as their educational profile.

Table 1.1: Interview schedule outcomes

Supervisor	Male	Years' experience	Bomb Tech	Years' experience	Btech Policing	Dip Security Risk	Dip in Pol Man	Basic bomb Tech Course, Basic Explosives Control Course, Post Blast Investigation Course and a 12-month mentorship
1		10 yrs						
1		6 yrs						
1		3 yrs						
			2	> 8yrs				
			1	12 years				
					1	1	1	
								3
	3							

(Source: Compiled by the researcher)

Based on the sample of interviews, the background information gathered from the (n=3, 100%) participants show that all the participants were expert Bomb Disposal Specialists/Bomb Technicians. One (n=1, 33%) participant has been in a supervisory position for a period of ten (10) years, while the second (n=1, 33%)

participant was in the same position for six (6) years, and the last (n=1, 33%) participant has been in that supervisory position for three (3) years. Additionally, one participant has 12 years' experience as a Bomb Technician, whereas the other (n=2, 67%) participants were in the same designation for over eight (8) years. The (n=3, 100%) participants are all males, and (n=1, 33%) has a Btech degree in Policing, the other (n=1, 33%) has a Diploma in Security Risk Management, while the last (n=1, 33%) participant has a Diploma in Policing Management. All (n=3, 100%) participants have undergone courses in the Basic Bomb Technician, Basic Explosives Control, Post-Blast Investigation, and a 12-month mentorship programme in order to be declared competent as Bomb Technicians. This section outlined the processes followed to analyse the data collected. The next section outlines the interpretation of the study analysed data.

1.14 DATA INTERPRETATION

Data interpretation alludes to the researcher's detailing and explanation of the empirical data obtained through the semi-structured interviews in the context of dominant literature perspectives or points by respective scholars and practitioners in the field of the research (Walliman, 2017:268). Data interpretation is the significant last step of data analysis in qualitative research, and can be compared to the 'heart' of the study (Ngulube, 2015:18). Creswell (2014:178) acknowledges that the categorised data is transformed into analysed conclusions through interpretation, whereas Kelly (2016:326) outlines that data interpretation involves the inductive methods according to which the examined information serves as the premise to attain pertinent conclusions by the analyst.

As proposed by Creswell (2014:178) and Kelly (2016:326), the researcher collected, analysed and synthesised in respect of the primary themes and their associated categories. Therefore, the main themes were examined in comparison to existing literature-based viewpoints during the data interpretation process (Kelly, 2016:326).

1.15 TRUSTWORTHINESS OF THE STUDY

Fox and Bayat (2014:107), Gray (2014:185), Chilisa (2012:98), Hammond and Wellington (2013:146-147) and Babbie (2016:277) mention that in qualitative research, the integrity of the research depends on the trustworthiness of the

research process and its outcomes. In that regard, the researcher ensured that the entire research and its findings are conducted with integrity by adhering to the following aspects of trustworthiness: credibility; transferability; dependability; and confirmability criteria; all of which are discussed below.

1.15.1 Credibility

According to Du Plooy-Cilliers, Davis and Bezuidenhout (2014:258) and Kumar (2019:185), credibility refers to the accuracy with which the researcher interpreted the data that was provided by the participants. The researcher collected credible information and analysed the data in a credible manner by using a standard semi-structured interview schedule to ensure that the participants answered similar questions. The interview questions were pre-tested through a pilot study and perused by the supervisor.

The interviews were all conducted through the Zoom meeting platform, recorded, and transcribed to authenticate the participants' actual responses. The researcher spent sufficient time with the participants (member checking) to understand their worldviews and to gain more insight to what they have experienced. The researcher further utilised triangulation as a method to collect data related to the problem being investigated. To that effect, the researcher reviewed literature and documentary sources, conducted interviews and referred to his personal experience. In order to ensure that the study is credible, the participants were granted access to the final report to validate the accuracy of their experiences and opinions.

1.15.2 Transferability

According to Kumar (2019:172), transferability in qualitative research (which is external validity in quantitative studies), means the degree to which the results of the particular study can be generalised or transferred to other contexts or settings. Transferability also encompasses the accuracy by which the findings and recommendations of the research study can be applied to other settings (Lichtman, 2014:387). The researcher ensured that the interview questions are related to the objectives and involved bomb disposal experts to ensure that the findings of this study do not deviate to other parallel studies in a similar topic (Gray, 2014:182-183).

Furthermore, Du Plooy-Celliers et al. (2014:258), argue that transferability refers to the ability for the research findings to be applied in other studies, but still deliver similar results. Wagner, Kawulich, & Garner (2012:243) and De Vos et al. (2011:419-420), concur that transferability/generalisability in qualitative research is equivalent to external validity in quantitative research, and its main purpose is to measure generalisation based on a similarity judgement of the researcher regarding the research findings' relevance and application from a specific situation or case to another.

The researcher has also ensured that the data was ethically collected from experienced and competent bomb disposal specialists who possess equivalent training and exposure as other experts within the SAPS. The researcher is confident that the same results would be obtained if another researcher used the methods used by the researcher. This transferability is achievable, based on the researcher's clarification and outline of the research findings and recommendations for practitioners to benchmark when resolving similar challenges in other institutions using the study.

1.15.3 Dependability

In qualitative research, dependability refers to the consistency and quality with which the results could be repeated and result in similar findings while accounting for ever-changing contexts (Leedy & Ormrod, 2019:239). The researcher has kept a record of all the data collected, and explains the process of integration which took place between the data collection, data analysis, and the findings generated. The researcher utilised the spiral method to analyse the data, which prevented the prevalence or occurrence of unfounded conclusions and interpretations. Accordingly, extreme care was taken to ensure non-manipulation of data through erroneous deductions.

1.15.4 Confirmability

The standard of confirmability implies the concerted efforts to base conclusions on actual data in order to enable any observer or interested researcher to draw similar conclusions that resonate with the original study (Leedy & Ormrod, 2019:239-240). The researcher kept a detailed record of the interview schedule and relevant

transcripts of the interviews which were conducted. The researcher planned the research process in detail to assist others in scrutinising all aspects of the research. Moreover, the researcher has ensured that the findings were a direct correlation or product of the data. The next section addresses the ethical considerations of the study.

1.16 ETHICAL CONSIDERATIONS

Thomas (2013:38) submits that ethical considerations are principles of conduct regarding what is construed as wrong or right in research, and balances the correct actions to be taken throughout the entire research study. As guided by Davies and Francis (2018:56), the researcher has ensured data utilisation and storage, confidentiality of data collected, privacy, confidentiality, and anonymity; as well as the informed consent obtained from participants. The researcher has also avoided plagiarism by acknowledging all sources of information, avoiding change of information, and using pseudonyms where the identity of participants has to be protected (Kumar, 2019:260-261). The researcher further considered the following ethical issues in relation to the participants as proposed by Kumar (2019:260-261).

1.16.1 Voluntary participation

Participants were not forced or coerced to take part in the research. As autonomous (self-regulating) adult human beings, they have the right to decide independently for themselves whether or not they desire to participate in the study's empirical processes (Leedy & Ormrod, 2015:102). There were neither any punitive actions nor reprisals against those who refused to be involved, and those who volunteered their participation had the option to withdraw from the study at any time they desired to do so. During the interviews themselves, the participants were also allowed to ask questions of their own when they required clarification by the researcher.

1.16.2 Informed consent

Before collecting information, the researcher is mandated to obtain written and signed consent from the participants indicating that they were fully informed of the study and its requirements (Kumar, 2019:258). Participants in this study were fully informed about the study's purpose in order to make an informed decision about whether or not to participate. The researcher used a consent form for each of the

sampled participants and the researcher to sign before the interview and further ensured that all the pertinent aspects of the study were fully disclosed to the participants (Leedy & Ormrod, 2015:102). In that regard, the researcher explained to the participants the type of information sought, the reasons for seeking such information, and how it would directly affect them (Kumar, 2019:259).

1.16.3 Not causing harm to participants

The researcher did not cause any physical, emotional, or psychological harm to the participants by exposing them to questions containing sensitive information (Kumar, 2019:105). The researcher has further avoided discomfort, harassment, invasion of privacy, and inhumane practices on the participants with questions that were unrelated to the research topic (Kumar, 2019:360).

1.16.4 Inappropriate use of information

The researcher has ensured that the participants are aware of *how* the information collected would be used. Where possible, harm existed directly or indirectly, the researcher took steps to protect the participants (Kumar, 2019:107). Furthermore, personal particulars of the participants were kept confidential, and only used for purposes of the study. Moreover, the interviewees were allocated unique codes for identification, and all electronically stored materials were protected through password encryption.

1.16.5 Conformity with UNISA policies

In addition to the above, the researcher has also adhered to the University of South Africa's College of Law (CLAW) policies on research ethics to regulate the researcher's behaviour during the collection of data (UNISA, 2016:5-18). Such compliance also included the researcher's full adherence to UNISA'S COVID-19 risk-adjusted strategies (UNISA, 2020:1).

- when analysing and reporting on the collected data, the researcher avoided falsifying the information gathered from the participants;
- the researcher also avoided the distortion of the outcome of the study by emphasising certain aspects over others with the same meaning or significance;

- the researcher did not foretell the desired outcome of the study when conducting the research to suit the researcher's expectation;
- the researcher also ensured that the data collected from the participants for the purpose of the research is not used for other reasons without obtaining the permission to do so;
- data context or content was not changed to suit the purpose of the research. The researcher also ensured that suitable research methods were used in collection of data to avoid harm to the participants;
- no financial benefits were promised or offered to the participants prior to the research as this would be unethical;
- the researcher has by all possible means avoided posing personal or sensitive questions to prevent a situation of making the participants feel embarrassed;
- the researcher did not use interview schedules or questions that tested the participants 'intellectual' capacity in responding to the research problem;
- plagiarism was avoided by properly acknowledging as well as citing ideas and other published work;
- the researcher wrote formal request letters to the UNISA College of Law's Research Ethics Committee. The approval letter from the Unisa Ethics Committee formally allows the researcher to undertake the research (see Annexure C);
- upon receiving ethics approval from UNISA, the researcher formally requested permission from the South African Police Service Divisional Commissioner of Research, the Divisional Commissioner of Forensic Division and the Provincial Commissioner of Limpopo Province; and
- the official letter of request to conduct the research with the selected Bomb Technicians is attached as Annexure E, Annexure A is the interview schedule and informed consent, Annexure H has the turn-it-in-digital receipt, and Annexure G is the editor's letter.

This section explained the ethical considerations which were observed throughout this study. The next section outlines the research structure in relation to the 4 (four) chapters in this study.

1.17 RESEARCH STRUCTURE

The entire study is demarcated in terms of the following four chapters to enable a well-structured research report in which the content flows in a thematically logical order in accordance with the research aim, objectives, and questions.

CHAPTER 1: GENERAL ORIENTATION

The general orientation chapter unpacks an introduction to this study, the research problem, the research objectives, as well as the study's aims, questions, and purpose are all presented in this chapter. Furthermore, the researcher discloses the boundaries of this research study, followed by the definition of key concepts underpinning the study. This chapter further proceeds to outline the study's methodological framework, as well as the research design and approach, in terms of the philosophical viewpoint presented in the study. Thereafter, the chapter describes and analyses this study's population and sampling methodologies, as well as data collection, analysis, and interpretation. Lastly, the evaluation of the study's trustworthiness and ethical considerations are also discussed in the chapter.

CHAPTER 2: CASH-IN-TRANSIT ROBBERY BOMBING SCENE

This chapter provides explanations of crime investigation, the meaning of crime scene, crime scene investigation, objectives of crime scene investigation, and the types of crime scenes with specific reference to CIT robbery bombings. Various decided court cases, photographs, and literature were integrated to address the research objectives in this chapter thoroughly.

CHAPTER 3: CASH-IN-TRANSIT ROBBERY CRIME SCENE MANAGEMENT

In this chapter, the researcher evaluated the procedures of managing a crime scene in relation to cash-in-transit robbery bombing as prescribed in the SAPS National Instructions, the relevant legislation, and various training manuals.

CHAPTER 4: FINDINGS AND RECOMMENDATIONS

Chapter 4 outlines the findings from the data analysis, as well as the recommendations emerging from the findings of the study. The data collected from documents as well as interviews was triangulated for accurate findings. This chapter

also outlines the limitations of the study, as well as possible improvement suggestions.

The next chapter (Chapter 2) focuses on the cash-in-transit robbery crime scene. In that regard, the chapter provides explanations of crime investigation, the meaning of crime scene, crime scene investigation, objectives of crime scene investigation, and the types of crime scenes with specific reference to CIT robbery bombings. Furthermore, it also includes various decided court cases and photographs to provide a better understanding of what the CIT robbery bombing scene entails.

CHAPTER TWO: CASH IN TRANSIT ROBBERY BOMBING SCENE

2.1 INTRODUCTION

This chapter focuses fundamentally on the bombing crime scene of a cash-in-transit (CIT) robbery and provide an overview of the crime scene and the distinguishing features of the use of explosives to force open the vaults of the CIT vehicle during a robbery. This chapter further endeavours to evaluate the objective: “To explore and describe a cash in transit robbery bombing scene” as described in Section 1.6 of Chapter 1. In an effort to contextualise the discussion, the researcher discusses the investigation process of a CIT robbery bombing crime scene, the meaning and definition of a crime scene and crime scene investigation, the objectives of a crime scene investigation, and the various types of crime scenes with specific reference to CIT robbery bombings.

The distinct crime of CIT robbery bombing is not legally defined within the realms of criminal offence. However, the offence of ‘robbery with aggravating circumstances is legally defined as an offence (Thobane, 2015:152). Therefore, for the purposes of this study, robbery with aggravating circumstance crime scenes constitutes the research study’s core focus, particularly the targeting of cash in transit vehicles, and the aggravating circumstances applied through the use of explosives to forcefully gain access into the cash vaults. The definition of ‘aggravating circumstances’ in a robbery are underlined in Section 1(1)(b) of the Criminal Procedure Act, Act 51 of 1977 as ‘the wielding of a firearm or other dangerous weapon or the infliction of, or threat to inflict grievous bodily harm, by the offender or an accomplice during or after the commission of an offence’ (Criminal Procedure Act, Act no 51 of 1977).

Singh (2021:642) affirms that a crime scene is defined by the location and surrounding areas of an alleged offence, including the collection of items with evidential value that has been collected at the particular scene. Geldenhuys (2019:28) asserts further that CIT robbers incorporate commercial explosives to their lethality when detonating CIT vehicles, thus, creating complex crime scenes. Furthermore, the bombing-related robbery scenes of CIT vehicles is thoroughly explained by the integration of various concluded court cases, photographs, and literature. This chapter further emphasises the significance of a crime scene in

relation to CIT robbery bombings, to later analyse the content achieved throughout the chapter in its summary. The researcher proceeded to describe a CIT robbery bombing scene in an attempt to visualise the scene for readers who have never before experienced a CIT robbery bombing crime scenes.

2.2 INVESTIGATION OF A CIT ROBBERY BOMBING CRIME SCENE

Govender and Sewpersad (2010:4) describe a crime as any act or omission which is forbidden and punishable by law upon conviction for such act or omission. All committed crimes go through a process commonly known as an investigation. An investigation is generally known to be the systematic search for the truth. However, Lochner et al. (2020:269), explain that the term investigation, refers to the act or process of examining the particulars of a specific event in order to establish the facts, the motives and culpability of the person or persons of suspicion. There are different types of investigations, amongst which criminal investigation is the most prominent, and is complemented by forensic science. Criminal investigation is the systematic search for the truth with an intention to achieve an outcome to the committed crime through the use of both objective and subjective clues (Klopper, 2015:400; SAPS Training Manual, 2010:2).

An investigation entails a systematic process of gathering evidence pertaining to an alleged CIT robbery where the use of explosives is involved. Meticulous execution of the investigation process is paramount, as a poorly planned investigation can reduce the effectiveness and integrity of the crime investigation process (Van Rooyen, 2013:228). In addition, Van Rooyen (2013:234) further compares the crime investigation process to completing a puzzle to which each matching piece interlocks systematically with another piece to reveal a portion of the greater picture.

International perceptions of Cordner and Scarborough (2010:71), explain that Criminal Investigation encompasses the actions taken by police officials to identify and arrest perpetrators of crimes, including crime scene investigations and interviews. Therefore, it is important to emphasise that the criminal investigation process largely includes interviewing witnesses, victims, and the suspected perpetrators. An interesting significance of interviewing suspects, victims, and witnesses during the investigation process of a crime scene can be observed in the

case of Mbanjwa v S (A113/2020) [2020] ZAGPPHC 251 to which the court was able to establish the following facts emanating from a crime of robbery involving an SBV armoured CIT vehicle:

> "On 7th January 2020 on the N4 Freeway near Bronkhorstspruit where a cash amount of just over R25 500 000.00 (Twenty-five million five hundred thousand rand) was robbed, AK47 automatic rifles and explosives were, inter alia, used during the robbery. The robbery was executed with precision by several robbers travelling in different vehicles. The armoured vehicle was bumped intentionally from behind which caused the driver to swerve off the road and end up in a ditch on the side of the freeway. Several armed persons wearing balaclavas exited from their vehicles. Shots were fired at the driver's side window of the armoured truck. Eventually the driver opened his door, and he was forced out of the vehicle. The robbers threatened to blow open the side door of the armoured truck by using explosives. This caused the driver and the crew in the back of the truck to open the truck's side door. The crew were taken out of the truck and made to lie down on the ground. The robbers then used explosives to blow open the door of the vault inside the truck. Before the robbers left, they set alight the Mercedes-Benz vehicle in which some of them had arrived at the scene and which was used to bump the armoured truck off the road. The robbers fled the scene in their other vehicles taking with them several cash bags and two 9 mm pistols belonging to SBV".

The thorough investigation of the above-mentioned case (wherein the perpetrators were linked to the actual commission of the CIT offence through the collected evidence), the court was able to formally charge the accused with incitement in respect of committing a crime in transgression of the Section 18(2)(b) provisions in the Riotous Assemblies Act (No. 17 of 1956); conspiracy to commit robbery with aggravating circumstances – contravening Section 18(2)(a) of the Riotous Assemblies Act (No. 17 of 1956); robbery with aggravating circumstances as stipulated in Section 1 of the Criminal Procedure Act (No. 51 of 1977) (CPA), read with the stipulations of Section 51(2) of the Criminal Law Amendment Act (No. 105 of 1997); attempted murder read with the stipulations of Section 51(2) of the Criminal Law Amendment Act (No. 105 of 1997); malicious damage to property; contravening Section 3 of the Firearms Control Act (No. 60 of 2000) – unlawful possession of a firearm; contravening Section 4(1)(a) of the Firearms Control Act (No. 60 of 2000) – unlawful possession of automatic firearm; contravening Section 90 of the Firearms Control Act (No. 60 of 2000) – unlawful possession of ammunition; and contravening Section 5 of the Explosives Act (No. 26 of 1956) that governs the unlawful possession of explosives.

The SAPS Training Manual on Crime Scene Management SAPS (SAPS, 2010b:21) further outline that the following activities are necessary when investigating a cash-in-transit robbery crime scene:

- conserving the scene of the crime;
- making comprehensive notes;
- searching the scene for exhibits, clues, and unexploded bombs;
- processing and packaging the exhibits and clues; and
- properly handling all persons at the scene and applying investigative tools.

The investigation process pertaining to activities leading to the crime of a CIT robbery bombing scene were appropriately executed in the case of *Nkabinde v The State (115/17) [2016] ZASCA 75*. As such, the investigation team was able to conserve, search and peruse the entire scene for exhibits and unexploded bombs, make comprehensive notes, process and package the exhibits; as well as process, detain and interrogate all persons involved in the case in a satisfactory manner. The court was then able to establish that the robbers pursued the CIT van transporting R2.5 million from Bloemfontein to Kimberley, fired shots at the CIT van and guard vehicle to force it off the road, and then proceeded to bomb the rear door which did not fully open. The robbers killed an innocent motorist during the CIT robbery and further robbed other by-passers of their personal belongings. The suspects fled the scene and were pursued by the special task force of the SAPS, who arrested them and successfully connected them to the particular crime scene and specific weapons used in the robbery. Image 2.1 below is an illustration of law enforcement officers conducting a CIT robbery scene investigation along Kagiso Drive, Chamdor in Krugersdorp on the 3rd of June 2020.

Image 2.1: A typical cash-in-transit robbery crime scene

(Source: Sibanda, 2020:np)

Image 2.1 above is a visual depiction of a CIT robbery crime scene where bombing was used as primary modus operandi to forcefully open the cash vault. The van is seen ripped apart with remnants of cash and metal scattered on the road. The participants in this study were asked: What does a CIT robbery bombing scene entail? to which the participants responded according to their own understanding, which corroborated the complexity of the damage witnessed in Image 2.1 above as follows:

> "There will be short fires on the scene, you'll find cartridges and the vehicle with gunshots. Obviously, your vehicle will be damaged to an extent of being ripped apart".
>
> "When the explosives have been used on the vehicle transporting this cash, you would find that that vehicle has been completely destroyed. There's been metal torn apart, the metal makeup of the vehicle they've been completely destroyed. The safe, there's been part as well to have been ripped to and twisted. You find the, the pieces of metal scattered around the area".
>
> "You will see by the way, the metal is affected because during the explosion, the detonation can be up to 4000 degrees. So, any piece of metal which is subjected to that type of heat, or such amount of heat will definitely melt or let me put it like that it gets trashed and that broken into smaller pieces".

Van Rooyen (2013:228) compares the criminal investigation of a CIT robbery scene to a process of systematically completing an unknown and scrambled puzzle, which metaphorically exaggerates the intricacy of investigating categories of such crime scenes. Furthermore, the description of a CIT robbery bombing crime scene by the participants corresponds to the finding in *Mbanjwa v S (A113/2020) [2020] ZAGPPHC 251*, according to which the criminal investigations revealed that the

modus operandi used in CIT robbery bombings (ramming, shooting, and bombing the car); identifying and linking the offenders to the said crime; and evidence linking the perpetrators the offence.

It is imperative to acknowledge that Cordner and Scarborough (2010:71), Lochner et al. (2020:269) and Klopper (2015:400), all link with the viewpoints of the participants concerning the significance of a systematic approach to investigating the CIT robbery bombing scene and uncovering how the crime was committed; the involved perpetrators, and the preservation of proof-worthy evidence for successful conviction of the offenders. The complexity of the CIT robbery bombing crime scene as seen in Image 2.1, is due to the effects of the bombing as described by the participants, which therefore warrants for the methodical and meticulous investigation approach as previously emphasised.

Lochner, Horne and Zinn (2020:4, 72) explain that crime scene investigation is a very intricate task requiring thorough procedures that involve the collection of all evidence relating to a committed crime. Moreover, Dutelle and Becker (2019:309) caution that an explosion generates substantial heat, releasing large quantities of gases, consequently causing the metal casings of the CIT vehicle to rapture and expel fragments and debris in many directions with deadly force. Thus, it is of significant importance to exercise caution when investigating a CIT bombing crime scene.

This section addressed the meaning of crime investigation, particularly in relation to a CIT robbery bombing crime scene. The following section addresses the objectives of crime scene investigation.

2.3 OBJECTIVES OF CRIME INVESTIGATION

According to the SAPS (2010:3), the objective of crime investigation entails the collection of evidence in accordance with prescribed processes, with the purpose of presenting such evidence in a court of law to prove facts. In addition, Lochner and Zinn (2015:33-35) illuminate that the aim and objective of crime investigation includes identifying, recovering and documenting evidence, collecting facts, clues, and physical evidence in a carefully and methodically coordinated manner. Furthermore, Benson, Jones and Horne (2016:12) outline that the terms, ‘goals’ and

‘objectives’ are applied interchangeably in reference to the crime investigation concepts. Additionally, Benson et al. (2016:13), clarify the following principal themes as a criminal investigation’s objectives:

- a systematically conducted search for the truth;
- identifying and detecting a crime;
- locating, recording, and processing evidence constitutionally;
- gathering objective and subjective evidence regarding the crime;
- discovering and ascertaining facts;
- assisting or testifying in the presentation of lawfully acquired evidence and documents; and
- trial preparation and accurate completion of documents.

The responsible party for the preparation of a case docket prior to trial is the investigating officer, until such case docket, with all the evidence, is handed over to the prosecution for purposes of trial. There are primarily three stages in the trial process, namely: the pre-trial, trial, and the post-trial stages (Criminal Procedure Act, No. 51 of 1977[CPA]). The entire investigation of crime takes place within the pre-trial phase of the CPA. Furthermore, Joubert (2018:262) argues that the pre-trial process is primarily intended to allow adequate investigation of the crime prior to concluding whether or not there is sufficient evidence to prove the suspect’s guilt. In addition, the CPA authorises the interview, arrest, search, seizure and fingerprints analysis of any person of interest to the investigation of criminal activity by police officials during the accumulation of evidence (Benson et al., 2016:10).

The investigation of crime, gathering of evidence and compiling a case docket is mandated to police officials, to be transferred to a prosecutor to establish whether the collection of sufficient evidence is satisfactory to institute prosecution of the suspect in the court of law (Swanepoel, Mokoena, Karels & Basdeo, 2012:16-17). Moreover, the researcher concurs that the investigating officials gather evidence in the pre-trial stage, often adhering to instruction issued by the prosecutor as argued by Swanepoel et al. (2012:17), Benson et al. (2016:10) and Joubert (2018:262).

In the context of CIT robbery bombings, the crime scene is further complicated due to the objectives identified by Lochner and Zinn (2015:34) that include; scene

reconstruction, ascertainment of the sequence of events, determination of the modus operandi, uncovering the motive, discovery of the stolen property and determining the actions of the perpetrator. In relation to this research context of CIT robbery involving the use of explosives, the following criminal investigation objectives are deemed relevant for purposes of addressing the aim, research objectives, and research questions in this study, as discussed below:

2.3.1 Reconstruction of a crime scene

In South Africa, the reconstruction of a crime scene for CIT bombing heist is often undertaken by trained specialists, such as crime scene technicians or Bomb Technicians in case of explosive related crime scenes. Osterburg and Ward (2010:353) argue that reconstruction of a crime scene involves the application of scientific methods to ascertain the manner in which the crime was committed with the purpose to allow a proper account of the suspect's actions in comparison to the reconstructed facts.

The SAPS Crime Scene Management Training Manual, (2010b:7) dictates that reconstruction of explosives related crime scene be referred to the Forensic Services Bomb Disposal. The reconstruction of a post blast incident by bomb disposal unit entails establishing the furthest debris of the explosion, comprehensively searching the crime scene and surroundings for secondary explosive devices or detonated explosives posing risk of exploding, establishing the point of detonation, collecting remnants of explosives for analysis and rendering the entire scene safe by disposing all explosives or hazardous material, notwithstanding the observation specific methods used to blast the CIT vehicle.

2.3.1.1 Ascertaining the sequence of events

When giving evidence in court, it is vital to outline to the court the manner of events accurately and sequentially in accordance with the collected evidence. The explosives related scene should initially be declared safe by the Bomb Disposal specialist of secondary explosives or bombs not yet exploded as mentioned in Clause 4.1(1)(a) of the National Instruction 6/1999: Explosives, Hazardous Substances, Explosives Devices and Materials (SAPS, 2005a:1). Tacitly, this implies that the Bomb Technician the first police official to interview witnesses and

victims prior to entering the scene of the crime to ascertain whether any unexploded devices which might pose a threat to the investigators and surrounding areas, have not been left behind by the perpetrators, as cautioned by Lochner and Zinn (2015:138). The Bomb Technician can observe and locate the centre of the explosion, particles, and objects misplaced or moved after the blast wave.

2.3.1.2 Determining the modus operandi

The Explosives Section of the SAPS has among other functions, the responsibility to analyse various types of explosives, materials, techniques, and common traits used by perpetrators in the transgression of explosives-related crime according to the SAPS Policy 3/2005 (SAPS, 2005b:1). Bomb Technicians are trained in Post Blast Investigation, including the establishment of the actions carried out by the offender when committing the crime as suggested by Bonn (2015:np).

In addition, Lochner, Horne and Van Wyk (2018:210) reveal that the profile of the perpetrator is related to their modus operandi characteristics, of which, when recorded in detail, can help in identifying potential and existing cash-in-transit robbers by means of common traits. This is indeed true as a Bomb Technician can link the actions of one scene to another by establishing the modus operandi. Furthermore, Labuschagne (2016:278) also argue that the term modus operandi is a Latin term which refers to the method of operating and the characteristics of the committed crime. Bomb Technicians, therefore, conduct a walkabout during post blast investigation at all bombing scenes, with the intention to establish how the crime was conducted.

2.3.1.3 Uncovering the motive

The researcher is of the view that money and the bigger market for making profits is an attractive motivator for criminals. As Lochner and Zinn (2015:137) elaborate, the use and purpose for explosives varies, which makes it crucial to establish the motive for the utilisation of explosives at a crime scene as some perpetrators utilise explosives for opening the cash vault, while other criminals use explosives to destroy evidence. A Bomb Technician is specifically trained in explosives, therefore able to uncover the motive for the use of explosives according to the degree of explosion, the quantity used, and the actual placement of the explosives.

2.3.1.4 Determine the actions of the perpetrator

It is essential that all the actions of the perpetrator be determined, in relation to explosives. In *Ngubane and Others vs State* (2017) the investigators were successful in establishing the actions of the accused persons responsible for the explosions such that the court is satisfied and convicted the accused persons on 4 (four) counts of transgressing Section 27(1) read in conjunction with Section 1 of the Explosives Act (No. 26 of 1956) – causing an explosion, among other serious offences. The accused were consequently convicted and sentenced to life imprisonment, with the judge mentioning the following in Paragraph 7 of the judgement:

> "The trend in all the scenes of the crime show that the same firearms were used in the commission of the crimes, the same type of explosives, the use of the stolen motor vehicles and commercial explosives, that all these indicate the preplanning in furtherance of a common purpose".

A Trained Bomb Technician is able determine the position from where the explosive charge was placed and initiated, with ease, whether by means of conventional or electrical methods of detonation was used, the various apparatus used for pumping in the explosives, and any tamping material which was used. At times, the crime scene technicians and bomb disposal specialist rely on video footage of the crime in order to determine the exact actions of the perpetrators as seen in a video clip posted on YouTube by Ndlhovu (2019:np) depicting a cash in transit vehicle being robbed and blasted with explosives in public.

In South Africa, CIT bombing incidents are often recorded as videos using cell phones and published on social media platforms, sometimes prior to police attending the crime scene for investigation. Therefore, it is essential, as a study by Zinn (2017:np) suggests, that for the police officials to apply best practices in policing and developing crime intelligence abilities through the development of systems that allow for accurate and reliable collection of data, from multiple sources so as to enable the processing of data into reliable crime intelligence.

In the case of *Mothwa v The State (124/15) [2015] ZASCA 143,* police officials had observed a trend according to which vehicles involved in aggravating robberies were subsequently exported illegally through various borders of the country,

particularly to Zimbabwe and Mozambique. Consequently, the police developed and instituted crime intelligence systems that have noted similar trends in other fields. However, the court ruled that the inference of this matter should not be drawn on the basis of assumptions, but on reputable evidence. A relevant case involving sources of crime intelligence relates to that of *State v Letshoa (2019)* where the SAPS established an intelligence operation to counter the increasing CIT robberies.

Accordingly, evidence and exhibits were gathered in relation to the CIT bombing robbery which occurred on 10 December 2017 near Marikana, where a cash lump sum of R640,790.00, which at the time of the incident, was being conveyed in a CIT truck, was removed by the perpetrators after detonating explosives inside the truck to gain entry to the vault. The intelligence sources in this case were reliable, accurate and positive, consisting of the perpetrators, co-perpetrators, by-passers, and currently and formerly convicted offenders as valuable sources of crime information. Building and establishing relationships with the community creates trust between the community and the police officials, facilitating the active collaboration between ordinary civilians and the police in sharing information to combat the threats of violent crimes (Zinn, 2017:np).

The bombing crime scene may from at times contain self-made or improvised secondary explosive devices, designed specifically to kill or harm public safety responders usually after the suspects have fled the scene. A standard crime scene management practice in policing is to immediately evacuate the area should there be suspicion of secondary device in the vicinity, immediately followed by notification of bomb disposal personnel. Image 2.2 below shows various ingredients used by criminals for secondary explosive devices or self-made bombs known as improvised explosives devices.

Image 2.2: Ingredients of self-made explosive devices

(Source: South African Police Service, 2019:np)

Bomb Technicians are required to conduct several procedural functions such as secondary device searches and rendering devices safe in the event of discovering preliminary evidence in the placement of an explosive device. Image 2.2 above also illustrates the ingredients used for self-made explosives recovered by the SAPS in Khayelitsha, which are often used as follows:

- blasting cartridges which are used as the main explosives charge;
- silicon containers which are used as containers for the main explosives charge, often used when the perpetrators are targeting confined spaces of the cash safe like the key slot. Explosives are pumped into the key slot using the nozzle opening of the silicon container;
- silicon gun which is used for exerting pressure on the silicon container in order to pump in the explosives into the confined areas of the cash safe to be blasted; and
- capped fuses, which are explosives accessories used to conventionally initiate an explosion using an ignition source like matches. The capped fuse is no longer supplied in the South African commercial explosives industry but substituted by electric detonators.

An exposé by Lewis (2018:np) reveals the ease of accessing illegally purchased explosives from an illegal miner in the mining industry, who confirmed that the

explosives were to be utilised in the bombing of CIT vehicles and ATM'; further detailing the use of the explosives as secondary devices to explode after main bombing. Image 2.3 is reflective of an Illegal miner demonstrating the charging of explosives for bombing of CIT vans and ATMS.

Image 2.3: Demonstration of the preparation of an explosive charge
(Source: Lewis, 2018:np)

In addition to a criminal investigation's objectives in relation to a CIT bombing crime scene discussed above, Van Graan and Budhram (2015:44) further mentions that the primary principles of criminal investigation are identification, individualisation, and the Locard's principle. These principles are relevant to the criminal investigation of a CIT bombing scene, as discussed further below.

2.3.2 Identification

As an objective of crime investigation, the element of identification evaluates the facts relating to the crime in accordance with pre-requisite factors for determining the aspect of unlawfulness, where a series of identifications lead to individuality as the primary goal of crime investigation (SAPS Training Manual of Crime Scene Management, 2010b:3). Identification is categorised in respect of the witness, the situation, the action, the perpetrator, the imprint, the victim, the origin and cumulative identification factors (Van Graan & Budhram, 2015:48). Furthermore, it is imperative to identify the perpetrator(s) from the witnesses after a CIT robbery by way of perpetrator and witness identification. In this study, a key focus of identification is on the explosion, and the effects thereof.

2.3.3 The Locard Principle

The Locard Principle is applied at a crime scene for gathering data during crime investigation on the basis of the proposition that, there is always a corresponding transfer of evidence whenever two objects meet with each other (SAPS, 2010:10; Van Graan & Budhram, 2015:45). Lochner and Zinn (2015:12) further explain that the Locard Principle unfolds when the perpetrator leaves some traces of evidence on the crime scene. The Locard Principle is a vital objective of criminal investigation at a CIT robbery bombing crime scene as multiple traces of evidence can be left by the suspects, thus, meriting investigation and a thorough analysis.

2.3.4 Individualisation

Individualisation entails linkage of each object to the crime scene or person through identification and comparison objects undetermined at the crime scene (Van Graan & Budhram, 2015:64). The SAPS (2010:5) also reveals that individualisation involves comparison of identified disputable objects at the crime scene to known samples. An example in this case relates to the firearms and cartridges found at the crime scene following a shootout. It is crucial to link the two items either to the perpetrators, the victims (guards) or the police officials who responded to the CIT robbery. A silicon gun used by perpetrators to pump explosives into the vault of a CIT vehicle is another example of an object that can be individualised and linked to the actual perpetrators who used the explosives.

The researcher believes that the objectives of crime investigation should always be considered by the police official when processing a CIT robbery bombing scene. The judgement in *Mothoa vs State* (2015) concluded in the accused being acquitted on the basis that the investigating officers relied heavily on assumptions as opposed to the need to apply emphasis on the principles of identification, individualisation, and Locard's Principle when conducting criminal investigations**,** as cautioned by Van Graan and Budhram (2015:44). It is, therefore, paramount for the investigators and police officials responding to the CIT robbery bombing crime scene to ensure that the collection of evidence is in accordance with the prescribed procedures and standards as argued by SAPS (2010:3), Lochner and Zinn (2015:33-35) and Benson et al. (2016:13).

This section outlined the objectives of criminal investigation, with particular focus on the CIT robbery bombing scene. The following section focuses on defining and analysing a crime scene in detail, with the core focus on CIT robbery bombing scenes.

2.4 CRIME SCENE

A crime scene refers to the location at which a crime occurred, providing crucial evidence leading to the truth regarding the committed crime. The scene also provides the locality of hidden clues concerning a crime when evidence is recognised, preserved, and properly collected (Klopper, 2015:408; Roper-Simpson, 2015:279). Van der Watt (2015:162) further mentions that a crime scene may include a person, place, or premises where crime related activities occurred and there could have transferable physical evidence.

The crime scene is commonly regarded as the starting point of an investigation where direct or indirect proof and evidence is attained pertaining to a committed crime (SAPS, 2010b:15). In relation to an explosion scene, the area of the crime scene spans the epicentre of the blast site to the location of the last debris of the explosion at a distance of at least 50% from the epicentre. Experience has revealed that certain CIT robbery crime scenes can include vast distances and surrounding areas due to the modus operandi used by the robbers when attempting to bring the CIT vehicle to a standstill by force. Additionally, the fly-off remnants caused by the high explosion can at times be found at far distances from the initial crime scene, as depicted by SABC Digital News (2018:np) and Lowveld Media (2018:np).

It is of utmost importance to consider safety at each and every crime scene involving explosives, particularly where the bomb disposal specialist is always required to be notified prior to entering the scene of crime by any person(s) (SAPS, 2010b:7). The integrity of the crime scene ought to be always maintained in all processes, through the elimination of potential secondary explosion threats capable of destroying human and non-human evidence. Furthermore, Klopper (2016:408) cautions that in South Africa it is a responsibility of the members of the Forensic Division to collect data and physical clues at a crime scene as both the Bomb Technicians and crime scene technicians are part of the Forensic Division of the SAPS. In this study,

participants were asked to respond to the question: What does a CIT robbery bombing crime scene entail? All the participants mentioned the possibility of finding potential dangers as follows:

> "An explosion scene it's not like any ordinary crime scene. So, there is a possibility that you might find secondary explosive devices any moment".

> "There are threats and the risks in that particular scene such risks among others include remnants or sharp pieces of metal that have been scattered around those that have been ripped from this vehicle or the, or the metal makeup of the safe. Some will find the broken glasses coming from the very same cash van. Some of those risks of course, will be if they could be unexploded explosive devices or unexploded, improvised, explosive, that will be found in that particular scene. And other hazards, they will include, of course the biohazards".

> "When it comes to the dangers, we all know that most people will always tell you about the secondary devices or the second explosion that take place or the booby traps that might be there in case you arrive there. And then you by mistake may initiate booby trap or you find that because some of these explosives remember explosives either need the heat friction or shock also that explosion you might find that something is gaining or burning can be burning slowly and then if it is exposed to heat it explodes".

The empirical data captured from the participants unanimously expresses the high potential and possibility of secondary explosive devices, shrapnel, and booby traps to be part of CIT robbery bombing crime scene. In addition, Lochner and Zinn (2015:138) further corroborates that at any crime scene involving a detonated bombing device, an assumption by Bomb Technician of unexploded bombs is necessary, until the crime scene is rendered safe. The dangers posed by the explosion of the CIT van during the robbery on the crime scene has been perceived also from the public media as exposed by SABC Digital News (2018:np) and Lowveld Media (2018:np). It is therefore important to remain vigilant and cautious of scattered remnants and debris, including unexploded explosives at any CIT robbery bombing scene.

This section considers the description of a crime scene, centring on the exact locations where CIT robbery bombing occurred for interpretation according to the Crime Pattern Theory which argues that criminal behaviour fit patterns to be understood according to where such crime occurs (Lab, 2015:219). Upon comprehensive understanding of a CIT robbery bombing scene gained in this section, the next section then seeks to outline different types of crime scenes varieties under which CIT robbery bombings can be categorised.

2.5 DIFFERENT TYPE OF CRIME SCENES

The various classifications of crime scenes assist the police with processing the crime scene, identifying types of evidence that are found in a particular crime scene, and the investigation logic (Lee & Pagliaro, 2010:10). In addition to the importance of classifying the types of crime scenes as mentioned, Lee and Pagliaro (2010:10) further argues that the consistency of such crime scene classifications is contentious when investigating a complex crime scene. In their response to the objectives of a CIT robbery bombing scene investigation, all the participants emphasised that such crime scenes were definitely complex to address.

This argument of complexity is relevant to CIT robbery bombings as explained above because multiple offences are often committed simultaneously during robberies. In their further response to the question: What does a CIT robbery bombing crime scene entail? The participants also offered the following descriptions from their respective experience:

> "Cash in transit robbery or bombing scene is whereby a vehicle transporting cash has been attacked mainly by heavily armed suspect who in the process they will bring a vehicle to a standstill by shooting it, shooting at security guards of the vehicle, bomb or explode the vehicle and steal the money and flee the scene. It's a very complicated scene."

> "The information that you get is that high calibre firearms or rifles first and they will have explosives, because the explosives make it easy and it's faster. So, they opt for explosives. And after exposing what they do normally, they might have another car that they will use to force the cash in transit vehicle off the road. And one of the vehicles stops they will force the occupants out. And open the vault or safes at the back with explosives after good explosion. They will disarm the guards bomb the vehicle run away or get away with the money".

> "How they do it is that they will normally force the CIT Van off the road, using either their vehicles, Firearms or Explosives. And then they will take the drivers away from the vehicle. They will bomb the car as a manner to access the cash. Okay, so they will use explosives to forcefully open the car, or possibly the vault where the cash is being stored inside the cash in transit vehicle".

Extrapolated from the afore-cited explanations provided by the participants, three distinctive elements emerged as a prominent aspect of the CIT robbery bombing scene, namely: the forceful derailing of the CIT vehicle in an attempt to stop it; the use of high-calibre assault rifles to disarm and intimidate the security personnel; as well as the application of explosives (bombing) on the CIT vehicle vaults in order to access the cash. Due to the intensity of the three activities mentioned above, the type of crime scene depending on the speed of the CIT van prior to confrontation,

the perceived resistance by the security officials, as well as the effects of the explosion are all elements directly linked to the initial approach of the perpetrators. There are several types of crime scenes as already stated in the ensuing sections, depending on the actions of the perpetrators during the execution of the crime and the particular modus operandi (Lee & Pagliaro, 2010:10).

Although the study participants evidently provided their various empirical viewpoints and reflections concerning a CIT robbery bombing scene, all their versions were influenced by their expert training background and exposure which warrants explanation and exploration through the different types of crime scenes. Lochner and Zinn (2015:34) assert that there are five types of crime scenes related to the CIT robbery bombing incidents, namely: the primary, the secondary, the extended, the macroscopic and the microscopic crime scenes; all of which are highlighted in the ensuing sub-sections.

2.5.1 Primary crime scene

Van Der Watt (2015:162) states that a primary crime scene spans the location from which the most criminal action occurred with the highest concentration of evidence. This is in concurrence with the explanation by Lochner and Zinn (2015:34), who allude to the primary scene of the crime as the area in which the offence occurred, or the immediate locality of the crime containing the largest amount of physical evidence. In this regard, Van der Watt (2015:162), Lochner and Zinn (2015:34) share a similar viewpoint in that the primary crime scene revolves around the epicentre of the crime, creating a radius around the bombed CIT vehicle where the evidence is most concentrated.

Image 2.4 below depicts a CIT explosion on the N8 highway, in which suspects fled with cash and shot at a police helicopter while fleeing the scene of the explosion, regarded as a primary crime scene. This primary crime scene is notwithstanding multiple other locations related to the CIT robbery prior to, and after the blasting of the CIT cash vault.

Image 2.4: Primary CIT crime scene robbery with explosives used to force open the cash vaults

(Source: Pijoos, 2019:np)

2.5.2 Secondary crime scene

Mohanty (2012:20) outlines that fireballs and fly remnants can be released from an explosion, forming part of the secondary crime scene as a result of shockwaves and high velocity fragments. Therefore, it could be reliably established that an explosion affects and damages its immediate surrounding, as well as the greater radius from the epicentre of the primary explosion (SABC Digital News, 2018:np). Moreover, a secondary crime scene is viewed as the location where further criminal activities transpired, apart from the primary crime scene, which might have physical evidence (Lochner & Zinn, 2015:34; Van Der Watt, 2015:162). The case of *S v Letshoa and Others* (2019) is quintessentially an example of firearms and other evidence associated with a CIT robbery that occurred near Marikana and later recovered at a certain address in Soshanguve, which then becomes a secondary crime scene. It has become a common trend for perpetrators to abandon their 'getaway' cars at some distance from the original primary scene, usually with the getaway vehicle having been hijacked prior to the crime in order to ram the CIT vehicle or for escape purposes. Image 2.5 below depicts an abandoned getaway vehicle that was used to ram a CIT vehicle off-road during a CIT robbery on the N18 highway between Vryburg and Pudimoe in North-West Province. This scene was treated as a secondary crime scene to the CIT robbery.

Image 2.5: Abandoned escape car, processed as a secondary crime scene
(Source: Sicetsha, 2018:np)

2.5.3 Extended crime scene

The blast or explosion following a CIT bombing crime scene often blows or scatters the evidence or its remnants in many different directions due to the force of the blast, resulting in the formation of extended crime scenes (Whelan & Weggel, 2018:3). Extended crime scenes are prominent in South Africa due to CIT robberies occurring mostly on public roads, causing the spread of the explosion over a vast radius, sometimes as a result the CIT van and its security personnel trying to escape or resisting the attack, leading to an extended crime scene before the actual point of detonation (SABC Digital News, 2018:np). Lochner and Zinn (2015:35) also acknowledge that an extended crime scene induces several unlawful actions at different locations during the continued perpetration of a crime. Geldenhuys (2019:31) outlines another extended crime scene in terms of which a unit of the Directorate for Priority Crime Investigations (DPCI) and Special Task Force were able to foil a CIT robbery by acting on information, which resulted in the crime scene stretching beyond a 17-kilometre radius. Image 2.6 below depicts a CIT robbery on the Matlala Road on 28 May 2018 when unknown perpetrators pursued a G4S CIT van and fired live ammunition at the vehicle while it was in transit over a distance of

about 200m. The vehicle finally stopped, and the perpetrators proceeded to blast open the vault door prior to fleeing with cash (Mabelane, 2018:np).

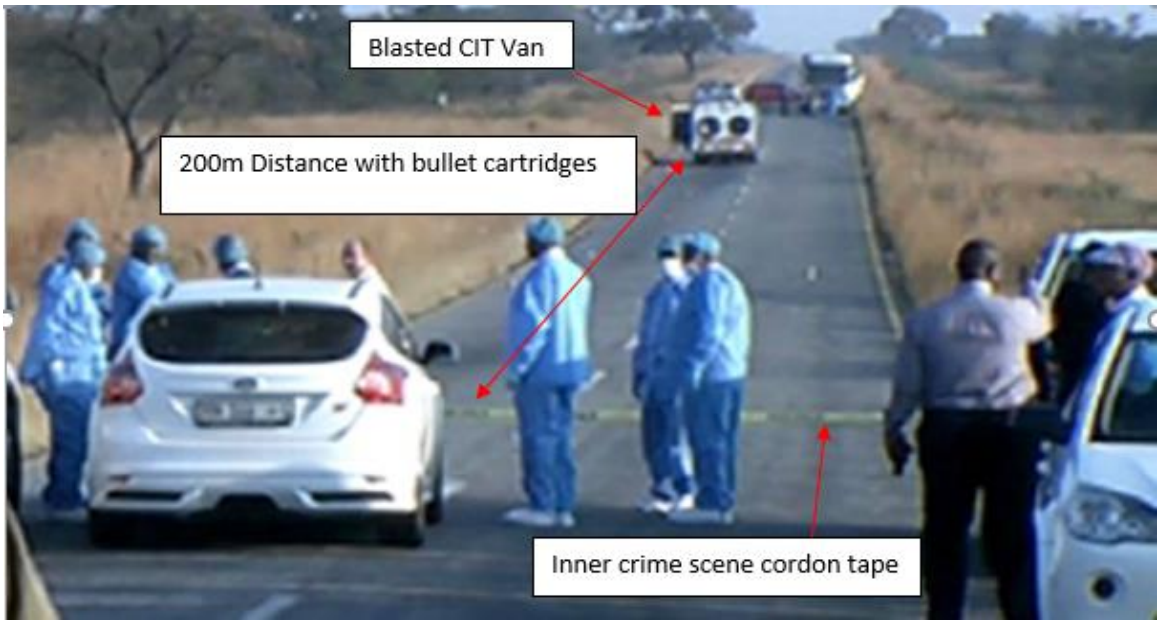


Image 2.6: Extended crime scene with bullets, DNA, explosives, and other evidence spread over 200m radius

(Source: SABC Digital News, 2018:np)

2.5.4 Macroscopic crime scene

This type of crime scene is at a single location and comprises of various microscopic (small-scale) crime scenes (Right Reason Technologies, 2010:np). Lee and Pagliaro (2010:10) and Lochner and Zinn (2015:35-36) augment further that a crime scene could alternatively be classified in respect of its size; hence, a macroscopic crime scene is larger in size than its microscopic variant. However, the same afore-mentioned authors are of the view that a macroscopic crime scene could also include physical evidence such as the deceased body of a victim. In relation to CIT robbery explosions, the macroscopic crime scene would refer to the origin of multiple criminal offences more often involving multiple targets. An example of such a crime scene is found in an incident where numerous vehicles and people were shot at, damaged, and injured through the use of explosives, ramming of vehicles and use of high-calibre firearms and weapons.

In *Nkabinde v The State (115/17) [2016] ZASCA 75*, the Supreme Court upheld the conviction against the appellants for acting in common purpose as stipulated in Section 317 of the Criminal Procedure Act (No. 51 of 1977) during a cash in transit

robbery that resulted in the accused being sentenced to life imprisonment on 28 counts. These counts or charges included murder, numerous counts of attempted murder, robbery with aggravating circumstances, and unlawful possession of explosives, firearms and ammunition in a macroscopic crime scene investigation of a CIT heist. Image 2.7 below is a visualisation of a macroscopic crime scene, consisting of two CIT vans that were shot at and bombed, including a truck that collided with one of the two CIT vans.

Image 2.7: Macroscopic CIT bombing robbery crime scene

(Source: Bega, 2018:np)

The different arrows in Image 2.7 above indicate the possible smaller (microscopic) crime scenes that can be demarcated from the macroscopic crime scene, including the first and second explosion centres, the shooting zone with cartridges, and the rear truck that collided with the second CIT van from the rear among other unidentified scenes.

2.5.5 Microscopic crime scene

Right Reason Technologies (2010:np) illuminates that a microscopic crime scene focuses on specific evidence types, such as DNA Forensics; Serology (i.e., fluids such as blood, semen, urine and saliva; Forensic Anthropology (i.e., bones); Forensic Toxicology (i.e., extraneous materials such as poisons or drugs); Forensic Odontology (i.e., teeth); Ballistics (i.e., weapons or weapon remains such as bullets) and Forensic Entomology (i.e., insects). Residual explosives and bomb remnants

are classified as ballistics under microscopic crime scenes. In addition, Lee and Pagliaro (2010:10) further classify microscopic crime scenes as lesser parts of the main scene by size, and that proper methodologies are essential for locating such crime scenes. For Lochner and Zinn (2015:35), a microscopic crime scene is classified any smaller piece of physical evidence or object that could be linked to the primary crime scene. These authors further caution that residue of explosives have a high likelihood to cross-contaminate another person or crime scene. A typical example in this regard relates to the residue that is found on top of the suspect's blood, fingerprint impression, or touch DNA following an explosion. Image 2.8 below is a representation of a microscopic crime scene showing a variety of microscopic evidence types located inside a 'getaway' vehicle used by perpetrators during a CIT robbery.

Image 2.8: Microscopic crime scene
(Source: Sicetsha, 2018:np)

The arrows in Image 2.8 above indicate the possible areas from which evidence could be collected to connect the perpetrators to the crime scene and the committed criminal offence. In relation to CIT bombings, possibilities of explosives residue and ingredients of explosives existing within the microscopic crime scene can assist law enforcement officers to corroborate the presence of perpetrators to the main crime scene.

2.5.6 Active crime scene

Van der Watt (2015:166) mentions that an active crime scene relates to the place at which the perpetration of the crime is still active, on-going, or in progress and requires real-time recording of the evidence by the investigating officers. An appropriate example in this regard could be a tip-off to the police concerning a heist in progress to which police responded swiftly to thwart such a crime while it is still in progress. In concurrence, Pillay (2017:4) reports a response by police officers to a planned CIT robbery wherein a shootout ensued and left three suspects fatally wounded at the scene of the crime, simultaneously with the actual investigation process.

Managing an active crime scene of a CIT robbery where explosives are involved has increased risks due to the potential occurrence of a secondary explosion (Lochner & Zinn, 2015:137-141). The case of *Nkabinde v The State (115/17) [2016] ZASCA 75* is another example of an active crime scene requiring police officers to react to a CIT robbery that resulted in a shootout and a high-speed police chase of the perpetrators over a distance of 90 km from the primary crime scene. The situation involved several police vehicles and a police helicopter in pursuit of the criminals who were travelling at an estimated speed of about160 km/h. Image 2.9 (overleaf) is a clear depiction of an active crime scene wherein the criminal activity was intercepted by police in real-time, and in the process of its commission.

Image 2.9: An active crime scene

(Source: McCartney, 2018:np)

This chapter focused on analysing the various forms of crime scenes as detailed in various literature sources, and further blended such perspectives with real scenes and primary data collected from the study participants. In this regard, the research participants acknowledged that the CIT robbery crime scenes are complex, which necessitated the study's exploration of five identifiable forms of crime scene investigation. The literature and primary data corroborated the complexity of the CIT robbery bombing scene and established that any of the five identified types of crime scenes can occur, depending on the perpetrators' modus operandi and severity of the violence used in the crime. External factors such as the environment, civilians, and police interceptions also proved to have an influence on the categorisation of the crime scene. These revelations then prompt for a thorough discussion on the value of a crime scene in the following section.

2.6 THE VALUE OF A CRIME SCENE

Matakata (2017:1) classifies all explosives related crime scenes, including CIT robberies, as serious Organised Crime which should be investigated by the DPCI. Documenting the scene of the crime and collecting physical evidence are crucial factors in the investigation of crime scenes and ought to be properly and accurately performed in order to maintain the integrity of the physical evidence and to achieve a positive outcome of the criminal investigation (Lee & Pagliaro, 2010:10-11). In addition, the SAPS (2010b:15) illuminates that the crime scene could clarify the following:

- the modus operandi for committing the crime;
- the unlawfulness of the offence;
- identity of victims;
- identification of perpetrators; and
- involvement of the perpetrator/s.

Geldenhuys (2018:11) posit that criminal investigation starts at a crime scene making it important to identify all possible evidence by heeding the 'silent voice' of the crime scene. Furthermore, Thobane (2019b:32) proffers that the crime scene could be a source of operational crime analysis for identification of links between suspects and their involvement in the CIT heist, identification of fundamental gaps

in the investigation process, and formulating profiles of identified perpetrators. According to the SAPS (2017:6), operational crime analysis involves the systematic study of questions regarding the crime scene to assist in apprehending the perpetrators, reducing the crime statistics and evaluating the effect of policing activities in the community.

Most of the evidence that can be used to prove the guilt of a perpetrator, recovery of exhibits and identification of witnesses and suspects is found at the crime scene. In contrast, the presiding judge in the case of *Naidoo v S (2016)* remarked that failure by the prosecution to adduce real or other evidence which should have been made available for prosecution may increase the need for caution and thus tilt the scales toward an acquittal. The judge further stated that even the most undisciplined, immoral person may only be convicted when the proof presented is satisfactory beyond a reasonable doubt to the court and that the accused certainly committed the crimes he/she is charged with.

In addition to the above remark made by the judge in *Naidoo v S (2016),* Lochner and Zinn (2015:38-39) further emphasise that crime scenes are valuable insofar as enabling the location of physical, documentary, testimonial, and demonstrational evidence. The probability that the suspects leave physical evidence at the CIT robbery bombing crime scene is high, due to the haste of the perpetrators when committing this offence, and the quest to escape possible arrest. Accordingly, the Locard Principle accentuates the criticality of the crime scene on the assumption that the perpetrator always leaves some clues and evidence at the scene of the crime, as acknowledged by Van Graan and Budhram (2015:45).

An important value in preservation of a crime scene is by documenting the scene with photographic imagery. Photographs play an important role as evidence in court, to represent elements of the crime scene that cannot be taken to court and to provide a clearer explanation of the crime scene when it was being processed (Miller & McEvoy, 2011:5). Image 2.10 below shows photographic evidence which captures the layout of the exhibits exactly how they were found at the crime scene.

Image 2.10: Photographic evidence
(Source: Sicetsha, 2018:np)

This section deliberated thoroughly on the criticality of crime scenes, and its use to determine the modus operandi, the unlawfulness of the committed offence, the identity of victims, and the identity and involvement of the perpetrator/s. Such criticality was also noted when interviewing the Bomb Technicians through comprehensive and in-depth knowledge of the CIT robbery bombing scene due to previous exposure to such crimes. The benefit of crime scene investigation is also found to assist in crime pattern analysis, as well as the ability to link the perpetrators to other crimes. It is therefore established that the crime scene is of important value in the investigation cycle, and should be preserved at all costs.

2.7 SUMMARY

From the different images presented in this chapter, empirical data from the participants in this study, and literature provided, it is apparent that the CIT robbery bombing scene is very unique and complex. The literature also revealed that successful investigation of the CIT robbery bombing scene is fundamentally premised on the understanding of the objective of a CIT robbery bombing scene. These objectives further serve as guidelines that deserves the meticulous attention of the police officials and authorised security personnel. Evidence from literature and the primary data from participants has cogently demonstrated that CIT robbery bombing scenes can occur in any of the following 5 (five) categories of crime

scenes: primary, secondary, micro, macro, as well active crime scenes. This revelation then implies that the investigators should be readily aware of the different types of crime scenes in order to react appropriately.

This chapter further covered the investigation of CIT robbery crime scenes, the meaning of a crime scene, crime scene investigation, objectives of crime scene investigation, and the various types of crime scenes with specific reference to CIT robbery bombings. Various court rulings, photographic evidence, data of the participants; as well as case law and literature-based information provided the basis for a triangulated data collection and analysis in order to provide a consolidated understanding of the manifestation of the phenomenon of CIT robbery bombing scene. Concerning the investigation of CIT robbery crime scene, the researcher outlined the activities that are necessary when investigating CIT crime scenes with the support of real-time images from some of the actual CIT robbery bombing scenes.

Various literature sources and scholarly perspectives attest that the successful investigation of CIT robbery bombing crime scenes should be prioritised in respect of the objectives that have been collectively explicated in the entirety of Section 2.3 of the current chapter. The chapter also addressed the meaning or conceptualisation of a crime scene, leading to the identification of the six types of crime scenes relevant to CIT robbery bombings and a visualisation from sampled incidents that actually occurred, as well as decided cases. The researcher then concluded the chapter by exploring the value of a crime scene in the investigation of a CIT robbery bombing scene. In this regard, the chapter then lays claim to have successfully explored and described what a cash in transit robbery bombing scene entails from an investigation perspective objectively.

However, the researcher also concedes that the CIT robbery bombing crime scene has not yet been sufficiently explored as a field of study from academic and legislative regulation. Therefore, this chapter serves as a catalyst for more focused debates and discussions towards understanding this phenomenon deeply. Since the current chapter explored what the CIT robbery bombing scene entails, the next chapter then presents and discusses the management of CIT robbery bombing

scenes, integrating literature as well as the primary data from interviews with the study's sampled participants.

CHAPTER 3: THE CRIME SCENE MANAGEMENT OF A CASH IN TRANSIT ROBBERY BOMBING SCENE

3.1 INTRODUCTION

The previous chapter outlined the investigation of crime with a special focus on CIT robbery bombing crime scenes, the types of CIT Robbery bombing crime scenes, as well as the evidential outcomes of the investigation through court cases. According to Van Graan and Zinn (2015:34-35), the presence of physical evidence or any other object at a crime scene signifies the mutual cross-transfer of materials at the particular crime scene. In the current chapter, the researcher explores the management of crime scene incidents related to CIT robbery bombings. A more detailed understanding of the phenomenon of CIT robbery bombings necessitates that a range of other related variables and factors should be explored as well, such as: crime scene management principles in relation to the offence type and the legal prescripts within the public law enforcement in South Africa. Such literature-based exploration is further compared to the primary data collected through interviews with the sampled three (3) Bomb Technicians who are experts in the field.

The researcher is conscious of the notion that the SAPS relies on a command system in terms of which the highest-ranking member of the SAPS is expected to assume leadership in order to guide the process of crime scene management. On the other hand, the first responder to the crime scene is guided by the directives of the Crime Scene Management instruction known as the Policy No. 2 of 2005, as well as the National Instruction 12 of 2015 which outlines the responsibility of the SAPS when dealing with culpable homicide (SAPS, 2015:1). The Panel of Experts Report on Policing and Crowd Management (SAPS, 2018:318) averred that the SAPS training system is based on training manuals that are not regularly updated, which hinders the appropriate integration of new insights, challenges and tactics to an adaptable training curriculum. Furthermore, the report revealed that neither of these training manuals are regularly reviewed for alignment with crime scene operational demands and dynamics (SAPS, 2018:318).

In addition, this chapter explores the second objective of the study, namely: “To determine the proper procedures for managing a CIT robbery crime scene in which

explosives were used to forcefully open the CIT van's cash vaults and extricate the money secured safely therein". To fulfil the afore-mentioned objective, the researcher reviewed the SAPS National Instructions pertaining to the management of the CIT robbery bombing scenes, namely: The National Instruction 6/1999: Hazardous Substances, Radioactive Material, Explosive Items, Articles and Devices and Potentially Explosive Items (SAPS, 2005:1), as well as the National Instruction 1 of 2015: Crime Scene Management (SAPS, 2015:1). To contextualise the discussion, the researcher further clarifies the principles of crime scene management at a CIT robbery crime scene, the role players in the management of a cash-in-transit robbery bombing crime scene, and the various phases within crime scene management. This is then followed by a section focusing on the National Instruction 6/1999, which regulates crime scenes involving hazardous substances, radioactive material, explosive items, articles and devices as well as potentially explosive items as determined in the SAPS (2000:1).

3.2 NATIONAL INSTRUCTION 6/1999: HAZARDOUS SUBSTANCES, RADIOACTIVE MATERIAL, EXPLOSIVE ITEMS, ARTICLES AND DEVICES AS WELL AS POTENTIALLY EXPLOSIVE ITEMS

The SAPS National Instruction 1 of 1999 [SAPS NI 1/1999] outlines that the responsibility of handling the explosives and bombing incidents occurring during a search or an investigations and other police actions, falls within the authority of the SAPS Explosives Section (SAPS, 2005:1). Holgersson (2016:92) posits that the risk of explosive hazards at bombing scenes cannot be entirely mitigated, presenting threats of undetonated devices, as well as secondary bombings and shootings against rescue workers and police, which creates incidental or built bombing hazards. Therefore, to counter the risks of undetonated devices and secondary bombings during crime scene management, the implementation of the National Instruction 6/1999 enables members of the SAPS to identify hazardous substances, explosive items, suspicious articles and devices, as well as potentially explosive items to ensure their safe handling and securing by the Bomb Technicians. Knowledge of the directives of this National Instruction 6/1999 pertaining to the handling of CIT robbery bombing scene were corroborated by the expert participants in this study as follows:

> "Bomb Technicians attend after being notified by the first responders being the guys are doing crime prevention. So, on our arrival, they find that the case is already cordoned on. And there is some evidence that we need to collect on the explosion seats, and it is not difficult to see that explosives were used because in a scene where explosives were used will always differ from a scene where grinder or cutting torch was used".

> "If the explosives were planted under the vehicle, Bomb Technicians find metal of your CIT will be ripped apart. Your back portion of the vehicle will also be broken and torn apart. Which is the result of an explosion. That is normally referred to what they call the brisance effect which is the ability to have an explosive to shatter and break apart metal. Because remember when explosives detonate the detonate sonic velocity of detonation, which is about, about 4000, meters per second".

> "Cash in transit robbery or bombing scene is a very complicated scene whereby you find a lot of people injured some dead, depending on the scale, or how big that scene is. High powered vehicles will bring this vehicle to a stop, apply commercial explosives, to bomb or open the safe and the vault".

The presence of potentially undetonated explosives constitutes the unique risk that should be managed with immediate effect and utmost care when attending to CIT robbery bombing scene because such explosives may result in a secondary bombing during the crime scene management process, as expressed by Holgersson (2016:92). Undetonated explosives are the reason that the SAPS invests sufficient time and money in the training and development of bomb disposal specialists or technicians who are expected at all times to be the first members to declare all bombing scenes safe from undetonated explosives prior to all other role-players entering or processing the crime scene. The potential risks were exposed by the participants who have had first-hand exposure in managing CIT robbery bombing crime scenes. In the latter regard, validating the provisions of the National Instruction 1/1999 implies that crime scenes should not be tampered with, until declared safe by a Bomb Technician (SAPS, 2005:3). Further details regarding the provisions of this National Instruction 1/1999 relate to role players and the phases of managing a CIT robbery bombing scene. Accordingly, the next session addresses the National Instruction 1/2015, which regulates the 'Crime Scene Management'.

3.3 NATIONAL INSTRUCTION 1 OF 2015: CRIME SCENE MANAGEMENT

The National Instruction 1 of 2015 [NI 1/2015] is issued by Consolidation Notice 3/ 2015 of the SAPS for ensuring that *crime scenes* are adequately regulated, documented, managed, and investigated. The above-stated Instruction also directs

maintenance of the integrity of items with potential evidential value. The principles of *Crime Scene Management* and the various phases involved in handling a crime scene are outlined in the National Instruction 1/2015 and are to be applied to any *crime scene*, which includes CIT robbery bombing scenes. The experts interviewed in this study corroborated the existence on the National Instruction 1/2015 on Crime Scene Management as follows:

> "When managing an explosion crime scene, the procedure or guideline that they use is what they call the crime scene management procedure".
>
> "The crime scene management document is normally released by the Forensic division and also this document that is called the fact file documents… as to guide people when they attend the crime scene".
>
> "For the question on the managing of this particular crime scenes, they are guided by the procedures of South African police service which among others it'll be the handling of explosives exhibits and then there'll be a crime scene management national instruction".

The NI 1/2015 (SAPS, 2015:3) describes *crime scene management* as the process of planning and the implementation of measures intended to:

- take control and secure the crime scene;
- ensure the integrity, preservation and the originality of evidence and exhibits;
- investigate and process the *crime scene* thoroughly without the *crime scene* being altered or contaminated;
- co-ordinate and optimise the collection of exhibits;
- utilise the investigation support resources optimally;
- record facts and events properly; and
- ensure that the crime scene remains under police protection.

Clause 3(1) of the National Instruction 1/2015 (SAPS, 2015:4) articulates that there should be contingency plans for CIT robbery bombing scenes, with every Provincial Commissioner ensuring that such plans are developed by every Cluster Commander and Station Commander under their command in respect of the handling of bomb threats, explosions and hazardous materials and releases. The National Instruction 1/2015 itself is an overarching guideline for crime scene management within the SAPS, and was issued as a generic yardstick for standardising the management of all crime scene incidents handled by police officials. However, Clause 3(1) has exposed the technical limitations encountered, particularly in the application of the

National Instruction 1/2015 with regard to the need for a contingency plan for bombing incidents (SAPS, 2015:4). It is worth noting that the existence of such a contingency plan is hardly mentioned in literature, nor was it raised by any participant during the interviews.

Additionally, the researcher was unable to corroborate the presence of such contingency plan at station, cluster or provincial level, even after having investigated several CIT robbery bombings. The participants, however, did confirm that they were guided by the Crime Scene Management National Instruction 1/2015 on every instance that they are called to manage the CIT robbery bombing scene. The National Instruction 1/2015 is also not explicit regarding the role of Bomb Technicians in relation to the bombing incidents. However, the assumption is that the need for Bomb Technicians is to be mentioned in a contingency plan for bombing incidents.

This section introduced the focus of Chapter 3 regarding the management of a CIT robbery bombing scene. The two foremost legal instruments that were relied upon in the management of CIT robbery bombing scenes were outlined in this chapter, and their approach clarified. The researcher further acknowledges the limitations that exist in relation to the management of CIT robbery crime scenes as there is no specific legal prescript at national level within the SAPS to address this unique crime. Provisions of both the National Instruction 1/2015 and National Instruction 6/1999 were integrated into discussions encompassing the literature perspectives and primary data collected through interviews conducted with sampled bomb experts. The next section addresses the principles of managing a CIT robbery crime scene.

3.4 PRINCIPLES OF CRIME SCENE MANAGEMENT AT A CIT ROBBERY CRIME SCENE

For the purposes of this study, the terms ‘crime scene control’, ‘control of crime scene’, ‘scene of incident control’, and other similar phrases are used interchangeably to refer to the actual process of managing crime scenes unfolding during the investigation of a CIT crime scene. According to Lochner et al. (2020:5), the principles of crime scene management include the planning process,

safeguarding the crime scene, controlling and managing the crime scene, preventing contamination of evidence, examination and processing of crime scene, as well as the documentation of the crime scene. These principles are detailed further in the ensuing sections.

3.4.1 The planning process

According to the National Instruction 1/2015 on Crime Scene Management (SAPS, 2015:13), the principle of planning constitutes the key to successfully processing a crime scene. The processing includes, inter alia, a walkthrough the crime scene by the Crime Scene Commander and meetings with role players such as the Crime Scene Examiner, other experts, as well as emergency personnel. In this instance, the 'other experts' mentioned in Clause 3(1) of the National Instruction 1/2015 are most likely the Bomb Technicians, since they conduct the first walkthrough. In addition, Lochner et al. (2020:5), argue that the principle of planning should be a priority to police officials who are first to arrive at the CIT robbery crime scene, corroborating the popular maxim that, "Proper planning prevents poor performance". The latter implies that if there is proper planning conducted at a CIT robbery bombing scene, faults in the process of managing the crime scene would be greatly reduced or even prevented (Ramokoka, 2019:1).

3.4.2 Safeguarding the crime scene

Lothridge and Fitzpatrick (2019:2) emphasise that the principle of safeguarding the crime scene is the utmost priority of a first responder, and requires that the first responder should prioritise the safety and physical well-being of all individuals and evidence in, and around the crime scene. According to Section 13(11)(a) of the South African Police Service Act (Act 68 of 1995), any police official has the authority to cordon off the crime scene where an offence or an alleged offence has occurred, including any adjacent area in order to safeguard the said crime scene for investigation purposes (SAPS,1995:13). In addition to Section 13(11)(a) of the SAPS Act (Act 68/1995) which empowers the police officials to cordon off the crime scene, the National Instruction 1/2015 (SAPS, 2015:8) adds that the first responding police official at the crime scene ought to approach the crime scene with due consideration of his or her own safety, the safety of others; as well as the preservation and integrity of the crime scene.

The principle of safeguarding the crime scene was emphasised by all the participants in response to the first question, namely: “What does a CIT robbery bombing scene entail?” The participants further revealed that notifications pertaining to CIT robbery bombings were often obtained from the crime prevention police officials, stating that the Bomb Technicians *‘always find that the crime scene is already cordoned by the first responders’*. The principle of safeguarding the crime scene is depicted in Image 3.1 below, with an indication of a red danger-tape that was utilised to prevent the general public from accessing the scene.

Image 3.1: CIT robbery bombing scene cordoned with red danger-tape
(Source: Van Huyssteen, 2022:np)

In terms of Image 3.1, the police officials used safety cordon tape and traffic cones to identify and shield the immediate area around the bombed CIT van at the bombing scene, and suspected bullet cartridges on the ground which are exhibits and should be prevented from contamination. At the back behind the bombed CIT van, a marked police vehicle can be seen parked diagonally across the road to safeguard the area and prevent unauthorised access from the civilians to the CIT robbery bombing scene. Therefore, it is evident from Image 3.1 that efforts were made in this incident to safeguard the CIT robbery bombing crime scene. The next section focuses on the measures required when taking controlling and managing the crime scene.

3.4.3 The measures for taking control of and managing the scene

Controlling and managing a crime scene demands efforts from the first responding police official (first responder) to determine the extent to which the CIT robbery

bombing scene is protected (Singh, 2021:643). This principle of controlling and managing the scene is closely related to the latter principle of safeguarding the crime scene.

In addition, the SAPS (2005:4) highlights the significance of controlling and managing the scene and emphasises that the member on the scene should also adhere to these actions without delay, take all the necessary steps to prevent the contamination and disturbance of the crime scene; and assume control of the crime scene from the relevant party by accepting the handover of the crime scene from such a party.

3.4.4 The measures in place to prevent contamination of evidence

The term or phrase, ‘contamination of evidence' refers to alteration of the integrity of evidence from its original state, which could occur when it has been moved, destroyed or changed during collection, transportation, or storage (Lochner et al., 2015:121). As a measure to prevent contamination, the SAPS (2015:10) advocates that the first responder should give directions to the emergency services and other official role players at the scene in order to prevent evidence from being disturbed, altered or contaminated. The police often rely on the continuity of possession, which is also known as chain of custody in order to prevent contamination. The principle of preventing contamination is derived from the Locard Principle, which is founded on the maxim: “Whenever two objects come into contact there is a reciprocal transfer of traces”. Therefore, it is important to prevent a cross-transfer of traces of evidence at the CIT robbery bombing crime scene (Lochner & Zinn, 2015:12).

The researcher understands contamination prevention to be a high priority in policing, particularly in crime scene management. It is in this regard that the SAPS invests heavily in providing Personal Protective Equipment (PPE) to all police officers involved in crime scene management. Furthermore, the National Instruction 6/1999 emphasises that police officers should keep people away from all areas or vehicles that may be contaminated by any substance, avoid diluting or washing away powders and chemicals, and prohibit anyone from touching, tampering with, smelling, or even tasting suspicious items from the crime scene (SAPS, 2005:4).

3.4.5 The examination and processing of the crime scene and all evidence

The principle of examination and processing the crime scene and all evidence involves crime scene examination procedures by conducting observations for the location of physical evidence and creation of a hypothesis to be tested against all the evidence found on the scene (Gounden, 2016:36). The National Instruction 6/1999 (SAPS, 2005:1) defines an explosives incident as:

> "Any incident where it is believed that an explosive substance or article has been unlawfully used or any substance has been unlawfully altered or adapted to create an explosion and includes any incident where there is a possible threat of an explosion, such as when a suspicious parcel is found or in the case of a bomb threat".

Based on the above definition, all CIT robbery bombing crime scenes are classified as '*explosives incidents'* by the SAPS, meaning that the examination and processing of these scenes is mainly regulated under National Instruction 6/1999 which is intended to enable the SAPS members who specialised in the following areas: hazardous substances, radioactive materials, explosive items, articles and devices; as well as potentially explosive items to enable the identification of residual explosive items, articles, and devices (SAPS, 2005:1). Furthermore, crime scene processing and examination is intended to ensure the safe handling of potential evidence and the security (SAPS, 2005:1).

The examination and processing of a CIT robbery bombing scene is conducted in conjunction with the procedures and guidelines provided in Table 3.1 below which outlines the procedure to be followed when examining and processing explosives incidents as provided in the National Instruction 6/1999:

Table 3.1: Procedure for dealing with explosives incident

Step	Action
Step 1	Refrain from touching, tampering with, smelling or tasting any suspicious item.
Step 2	Cordon off the immediate area.
Step 3	Contact Radio Control and request the assistance of the Explosives Unit.
Step 4	Keep individuals away from the suspicious item and ensure that the item is not tampered with.
Step 5	Comply with all instructions given by the member of the Explosives Unit.
Step 6	Avoid diluting or washing away powders and chemicals.

Step	Action
Step 7	Keep people away from all areas or vehicles that may be contaminated by any substance.
Step 8	Refrain from making any statements to members of the public or the media about the incident. Media liaison to inform and reassure the general public ought to occur with great circumspection where the possibility of mass-hysteria exists.

(Source: SAPS, 2005:4)

Table 3.1 above is a depiction of the step-by-step procedure for examining and processing the CIT robbery bombing scene. Furthermore, it details explicitly the actions to which any first responder and any other member of the police force (except Bomb Technicians) is to adhere and also prohibiting such unauthorised persons from processing the crime scene prior to obtaining a safe declaration from a Bomb Technician to do so. It is on this basis that the Bomb Technician becomes a key role player in all bombing incidents.

3.4.6 Documentation of the crime scene

The purpose of documenting the crime scene is to provide a written record of the location of potential evidence, as well as to mentally prepare an outline of the crime scene examination (Singh, 2021:647). One of the main purposes of crime scene management is to regulate proper documentation of the crime scene, the evidence, and the processes followed when investigating the crime scene (SAPS, 2015:1). Lochner et al. (2020:138), emphasise that documentation of a crime scene should be undertaken diligently in order to secure a permanent record of the following factors:

- the condition in which the crime scene was found; and
- the condition of physical evidence, clues, the location, as well as the witnesses and victims according to how they were perceived during management of the crime scene.

The documentation of a CIT robbery bombing scene is strictly regulated by National Instruction 6/1999 (SAPS, 2005:3), which provides the following guidelines relating to documented information about incidents that involve explosives:

- the bomb data centre is the only database in which records of all incidents and information related to explosives are kept;
- any information on explosive recoveries, statistics or incidents that do not originate from an official Bomb Data Centre document may not be accepted as correct information; and
- no information pertaining to incidents or statistics related to explosives should be issued without the approval of the National Commander of the Explosives Unit or the person designated by the National Commander.

In addition to the National Instruction 6/1999 which regulates all explosion incidents, the documentation of a CIT robbery bombing scene is also guided by National Instruction 1/2015 which regulates crime scene management within the SAPS. The National Instruction 1/2015 (SAPS, 2015:27) further provides guidelines regarding the storage of records related to crime scene management. Table 3.2 below indicates the documents that should be completed during crime scene management.

Table 3.2: Documentation to be completed at a crime scene

Annexure	Document	Role player responsible for completion
Annexure D1	SAPS 297	Call taker/Dispatcher
Annexure D2	First responder report	First responder
Annexure D3	Access log	First responder/Any other police official
Annexure D4	Casualty log	First responder/Any other police official
Annexure D5	Exhibits log	First responder/Crime scene Examiner
Annexure D6	Witness log	First responder/investigating official
Annexure D7	Crime scene commander report	Crime scene commander
Annexure D8	Crime scene examiner report	Crime scene examiner
Annexure D9	Presumptive Test log	Crime scene examiner/Forensic Science Laboratory

(Source: SAPS, 2015: 26)

This chapter has unpacked the six principles (Sections 3.4.1 to 3.4.6) which are applicable to managing the CIT robbery bombing scene, with specific reference to

the relevant legislative prescripts that regulate such incidents. The six principles are closely related to the role players and phases attendant to managing CIT robbery bombing scenes. The principles discussed above could be summarised chronologically as planning, safeguarding, taking control, preventing contamination, examination and documentation of the crime scene. However, the participants' perspectives were not integrated in this section, largely due to the fact that the participants6 only mentioned the cordoning of the crime scene by the first responder. In that regard, the participants' perspectives are presented in the next section for thematic coherence and prevention of duplication and repetition.

3.5 ROLE PLAYERS IN CASH-IN-TRANSIT ROBBERY BOMBING CRIME SCENE MANAGEMENT

The SAPS National Instruction 1/2015 outlines the various stakeholders to be involved in the management of a crime scene (SAPS, 2015:22). The researcher has limited the focus of this study to four (4) key role-players who form the CIT robbery bombing scene management, namely: the first responder, the Bomb Technician, the investigating officer and the crime scene examiner (SAPS, 2015:2-22). The researcher further acknowledges that the National Instruction 1/2015 avers other categories of stakeholders, however, Table 3.3 below depicts the stakeholders who are not part of this study, as well as their task description at the CIT robbery bombing scene. Notwithstanding, their exclusion in the National Instruction 1/2015, the additional stakeholders and their roles mentioned in Table 3.3 are included by the researcher on account of the respective and supportive roles in managing and processing the cash-in-transit bombing scene.

Table 3.3: Indirect role-players in management of CIT robbery bombing scene

Role Player	Task Description
Call taker	An employee or member of the Service who deals with the members of the public that report an incident. The call taker should record the particulars of the complainant.
Crime Scene Commander	The designated individual from the relevant Investigation Unit (Division: Detective Service or Directorate for Priority Crime Investigation – DPCI) taking control of the crime scene.
Crime Scene Processing Team	A team of Crime Scene Examiners processing the crime scene to obtain physical evidence.

Role Player	Task Description
Crime Scene Supervisor	A specially trained police member who is declared competent in the knowledge and skills of crime scene principles and forensic processing and who takes control of the Crime Scene Processing Team.
Dispatcher	Any member who dispatches members to a crime scene.
Station Commander	Responsible to develop contingency plans for his or her station area for the handling of explosion or bombing scenes.

(Source: SAPS, 2015:2-4)

Further elaboration by the SAPS (2005:1) and SAPS (2015:1) clarifies that several role-players are not directly involved in the physical management of a CIT robbery bombing scene, as highlighted in Table 3.3 above. As such, the National Instruction 1 of 2015 on crime scene management further clarifies that the Crime Scene Commander could also act as the Investigating Officer. In certain instances, the Crime Scene Examiner may also assume the role of the Crime Scene Commander in the absence of a Crime Scene Commander. As previously elaborated in the principles of managing a CIT robbery bombing scene, the role player assumes the overall command on the scene. Depending on the material circumstances of the CIT bombing, the call taker and the dispatcher could also assume the role of the first responder (SAPS, 2015:3-4). Therefore, the researcher focuses on the first responder, the Bomb Technician, the crime scene examiner and crime scene investigator.

Figure 3.1 below depicts the four role players with direct involvement in the management of a CIT robbery bombing scene.

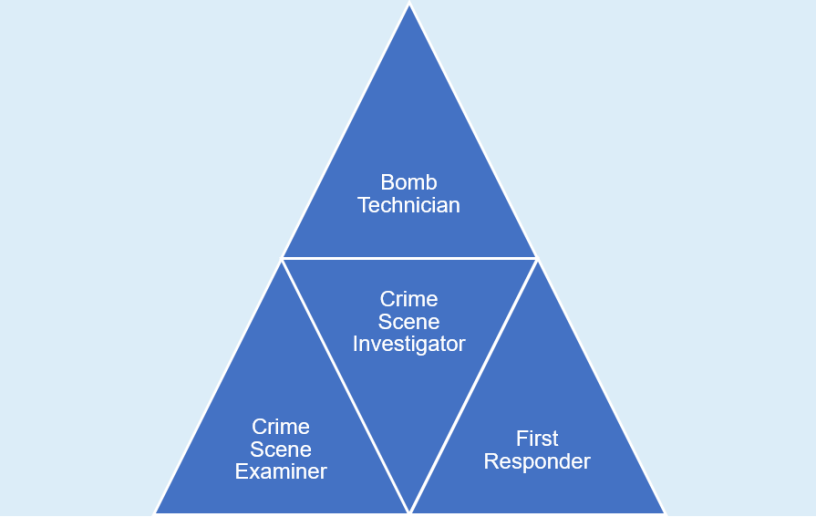


Figure 3.1: Role players in CIT robbery bombing scene

(Source: Compiled by the researcher)

Figure 3.1 above, depicts the role players in CIT robbery bombing scene who are limited only to the SAPS as the main law enforcement agency, commencing with the first responder (call taker/dispatcher). It is possible for the call taker to be a dispatcher and first responder, especially in smaller policing areas such as Limpopo Province, and South Africa at large where there is a shortage of personnel in remote policing areas. The call taker receives the information, interviews the caller, and attains as much relevant and specific information as possible. The call taker then relays the message to the dispatcher who notifies the relevant stakeholders, such as the first responder, the Bomb Technician, the crime scene examiners and the crime scene investigators. Every role player reacts or responds differently in the process of managing the CIT robbery bombing scene, depending on the nature and complexity of the incident, and depending on the phases of crime scene management.

In relation to CIT robbery bombing scenes, the Bomb Technician, the first responder, the crime scene examiner, and the crime scene investigator are the most pivotal in the crime scene management process. These role-players are discussed sequentially in the next section in the context of management of the CIT robbery bombing scene under normal circumstances in South Africa.

3.5.1 Bomb Technician

Article 8 of the National Instruction 6/1999 directs that: “Only an active member (Bomb Technician) may handle explosives, explosives ordnance and explosive accessories”. Accordingly, this SAPS National Instruction prohibits any police official from processing any crime scene prior to receiving a safety declaration from a Bomb Technician. A Bomb Technician is defined as a member of the Explosives Unit who has successfully completed the prescribed Bomb Technician’s Course, endorsed by the South African Police Service, and has been appointed in terms of the Explosives Act, 1956 (Act No. 26 of 1956) by the Chief Inspector of Explosives. Furthermore, the Bomb Technician should not have served as an active member for more than 24 months without having successfully completed the prescribed Refresher Course in Explosives during the same period (SAPS, 2005:1).

The significance of Bomb Technicians in the management of CIT robbery bombing is corroborated by the primary data collected in this study. In their response to the question: *How should a CIT robbery bombing scene be managed?* the participants affirmed the need to have a Bomb Technician as the first person to enter the crime scene. Following are the responses from the participants to that effect:

> “The bombing scene because there is danger involved, normally a Bomb Technician should be the first to enter and declare that it is safe”.
>
> “The bomb disposal specialists or the Bomb Technicians their role or the key role in that particular, will be to ensure that there are no unexploded devices, rather if, or if there are unexploded devices, but then to render those unexploded devices safe for the scene now to be safe for further processing”.
>
> “First responder, right from the explosive section will do what is called a first walkthrough. The first responders will be in their bomb suit, we use what they call the bomb suit, which is protective clothes that is used for attending the explosion crime scene, right”.

The participants mentioned that the primary role of the Bomb Technician at a CIT robbery bombing scene was to search the entire crime scene for the possibility of any secondary explosives, unexploded devices and rendering the safety of the crime scene prior to entry or processing of the crime scene by any other member of the SAPS. One of the participants also mentioned the possibility of a Bomb Technician becoming the first responder. However, the SAPS National Instruction

6/1999 prohibits any police official who is not a Bomb Technician from performing any of the following actions at a CIT robbery bombing scene:

- touch, tamper with, dismantle, inspect or remove any suspected explosive device, explosive substance or explosive ordnance that has been found at a scene or found abandoned or found in the possession of a suspect or on premises or in a vehicle where a suspect is being sought;
- touch, tamper with, inspect or remove any suspected explosive device, explosive substance or explosive ordnance found in the possession of a suspect or on premises or in a vehicle or where a suspect is being sought;
- perform the physical post blast investigation of a scene where an explosion has taken place, or it is suspected that a potential explosive device has exploded; or
- remove any exhibits from the scene where an explosion has taken place, or it is suspected that a potential explosive device has exploded to any station or holding area without the permission of the Bomb Technician who attended the scene. No explosive residue remains or exhibits may be handed in or be kept at a police station.

Bomb Technicians play a significant role in ensuring that the police officials and all role players who are involved in the management of the CIT robbery bombing scene, do not become victims of secondary explosions or unexploded bombs. Image 3.2 below illustrates two Bomb Technicians after searching a CIT robbery bombing scene for potential explosives:

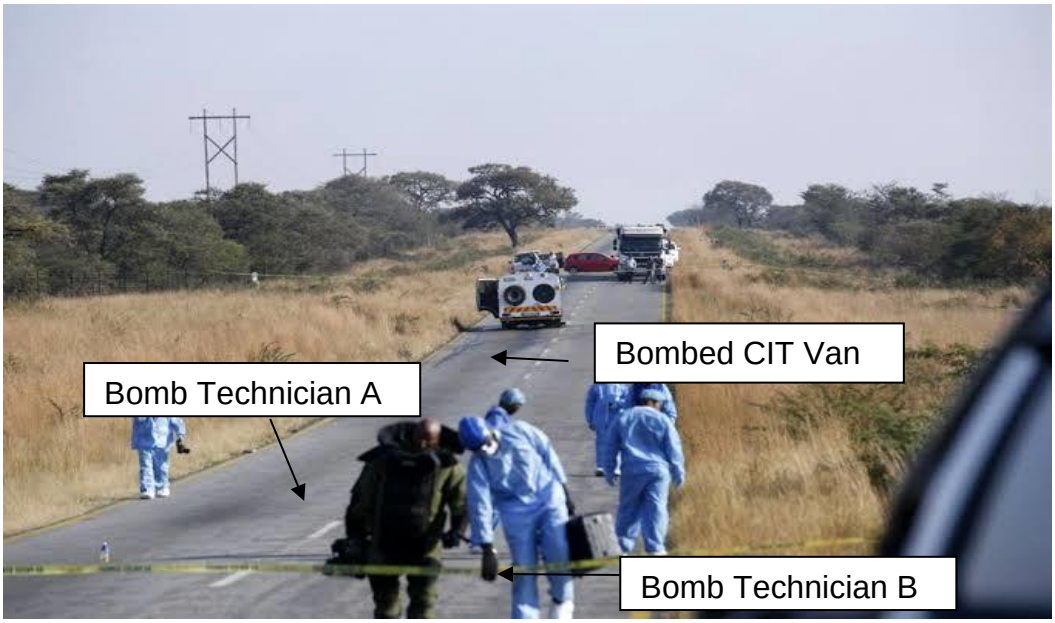


Image 3.2: Bomb Technicians at a CIT robbery bombing scene
(Source: SABS, 2018:1)

In Image 3.2, the two (2), Bomb Technicians have already processed the crime scene and rendered it safe. Bomb Technician A is seen wearing a bomb suit and carrying the helmet by hand, whereas Bomb Technician B is wearing crime scene processing PPE, a bomb disposal safety helmet, bomb disposal leather gloves, and carrying the Iplex videoscope by hand. Behind the two Bomb Technicians are the crime scene examiners who have begun searching the CIT robbery bombing scene after the Bomb Technicians had declared it safe.

3.5.2 First responder

According to National Instruction 1 of 2015, the "**First Responder**" is referred to as the SAPS member, irrespective of his or her unit, who is the first to arrive at the scene of crime (SAPS, 2015:4). Furthermore, the SAPS (2015:9) details the responsibilities of the first responder, who has to implement the Risk Assessment Method Statement (RAMS) Protocol. The RAMS entails training received on approaching and handling the crime scene. It is the responsibility of the first responder to safeguard the scene, cordon-off the area immediately on arrival, keep all people away from suspicious items, and ensure that the area is not tampered with. The first responder further ensures that all entities required to assist with the crime scene are informed in time. Such entities would include, but not limited to the Explosives Unit, SAPS complaint vehicle, SAPS accident unit, and SAPS

detectives. In addition, the first responder should invite the RTMC crash team for assessment purposes. The pathology service should also be summoned, depending on any fatalities.

In the event that the CIT bombing robbery incident occurred on a toll road, the toll concessionaires should also be involved in the scene. The traffic departments should also be involved in managing the unhindered flow of traffic by arranging different routes for motorists in order to render the crime scene secured and less inconvenient, and to ensure the crime scene is able to rehabilitate the road afterwards. Furthermore, the emergency services unit's purpose would be to extricate people in case of casualties, treating people on the scene, dealing with fire hazards and the towing services; as well as removing vehicles with the proper authority after the scene has been cleaned.

In this study, the above-cited roles were captured and entailed by means of the following question: **How should a CIT robbery bombing scene be managed?** In their response, the participants stated:

> "Once a first responder identifies that an explosion has taken place the first thing that the person needs to do is to cordon off the area, notify the bomb disposal".
>
> "According to my experience we normally will find the first responders, the guys doing a crime prevention, and these are people who don't understand actually what explosives do".
>
> "The first responders at the scene will have to source, or request the services of the Bomb Technician or, or invite the technicians to the scene".
>
> "The first responders who will be from the nearest police station, where this incident would have been reported, who will be activated first, or be notified first to say, they have been a bombing scene this side. Now, somehow these people will be trembling on the important piece of exhibits. It may not be something they're doing consciously knowing very well that what they're doing is wrong but, in my view, this still becomes a challenge".
>
> "When you come to the scene you will find that people that contaminated the scene, maybe your other first responders from community service centre all went through the scene".
>
> "So, purpose of these first responders (Bomb Technicians), is to identify any secondary explosives in essence to make the scene safe so that the team who will be coming to do your processing in all the work on a very safe scene".

Evidently, the above participant responses corroborate that the first responder plays a pivotal role in the management of a CIT robbery bombing crime scene, since

he/she is the first person to arrive at the crime scene. Furthermore, the first responder could either be a member of SAPS from the local police station, or even the Bomb Technician. A visual demonstration of first responders at a CIT robbery bombing scene is represented in Image 3.3 below:

Image 3.3: First responder managing a CIT robbery bombing scene
Source: (Anon, 2022:np)

As depicted in Image 3.3 above, the first responders at this CIT robbery bombing scene are uniformed police officials. It is also worth mentioning that the crime scene is cordoned too close to the bombed CIT van. As discussed in Section 2.5 of Chapter 2, there are several factors which can influence allocation of the first responder to a CIT robbery bombing scene. These factors include the location, manner in which the crime was discovered or reported, availability of intelligence, and the distance from the scene to the nearest available responder. The participants in this study confirmed that the first responder should immediately notify the Explosives Section (Bomb Technicians) in the event that the first responder is a member from the local SAPS police station. The participants also highlighted the possibility of the Bomb Technician becoming a first responder, in which case the priority would be the search of secondary explosives or undetonated devices.

3.5.3 Crime scene examiner

The Crime Scene Examiner (CSE) is referred to as a member from a Division such as the Forensic Services performing the forensic examination and processing of the crime scene (SAPS, 2015:3). The crime scene examiner is often a member of the

Local Criminal Record Centre responsible for, taking photos of the crime scene, collecting evidence and drawing a sketch of the crime scene. In other insta the CSE is accompanied by a qualified photogrammetrist who should capture crime scene measurements as faultlessly as possible.

In addition, the SAPS (2015:14) asserts that the Crime Scene Examiner ought to be allocated by the Local Criminal Record Centre that services the area within which the incident occurred. The Provincial or National crime scene management teams may be deployed, although the number of crime scene examiners attending the crime scene should be limited taking into consideration the complexity of the crime scene and maintaining the integrity of the crime scene.

The Crime Scene Examiner(s) ought to attend the CIT robbery bombing crime scene within a reasonable time in order to manage and process the scene minimising contamination occurrences on the scene (SAPS, 2015:14). Image 3.4 below depicts crime scene examiners planning to process a CIT robbery bombing scene:

Image 3.4: Crime scene examiners attending CIT robbery bombing scene
(Source: SABC, 2018:np)

Image 3.4 above illustrates a CIT robbery bombing scene, with the crime scene examiner outside the cordon tape and outlining strategies for processing the scene. It is important to note that the tasks performed by the crime scene examiners would differ according to the size of the scene, the location where the bombing occurred, as well as the availability of personnel. The role of the crime scene examiner is of

utmost importance in managing the CIT robbery bombing crime scene because they are responsible for gathering the evidence which would ultimately link the perpetrators to the offence and ensure their conviction.

3.5.4 Crime scene investigator

As indicated previously by the researcher in Section 2.6 of Chapter 2, the DPCI is mandated to investigate the CIT robbery bombing scenes. Matakata (2017:1) also acknowledges that an investigating officer from the Organised Crime Investigation Unit within the DPCI is often the responsible Crime Scene Investigator for such crime scenes. In remote areas that are a long distance from the DPCI offices, the Senior Detective from the local police station or the Detective on standby is expected to occupy the position of a crime scene investigator. According to the SAPS (2015:15), the Investigating Officer should, upon arrival on the scene, perform the following activities:

a) report to the *Crime Scene Commander*;
b) accompany the *Crime Scene Commander,* if appropriate, on the first walk through the *crime scene*;
c) represent the *investigation team* at the planning session;
d) maintain the investigation diary;
e) wear the appropriate *PPE*; and
f) ensure that a station and CAS number is assigned to the case before or whilst the *Crime Scene Examiner* attends the *crime scene*.

As crime scene management is part of the broader crime scene investigation process, the Crime Scene Investigator is therefore expected to be the custodian of managing the CIT robbery bombing scene, and perform the following roles (SAPS, 2015:17):

(a) ensuring the availability and maintenance of all the required documentation and opening of a case docket;
(b) in cases where there is fatality, the crime scene management completes all documentation needed to accompany a corpse;
(c) manage and take charge of the investigation team that is responsible in gathering information on the incident;

(d) maintain the investigation diary and case docket;
(e) attend to the post mortem and the collection of the exhibits from the Pathologist for forensic examination or court purposes;
(f) in cases where the identity of the deceased is unknown, fingerprints should be taken and embedded on a SAPS 91 form. In this regard, the involvement of the Department of Home Affairs is imperative in processing the fingerprints for identification purposes. Only if it is impossible to positively identify the deceased through fingerprints, can there be other methods that could be implemented such as taking tissue samples which could be dental or any other form of tissue sample available and refer for DNA test;
(g) if it happens that the deceased is known, SAPS 192 form should be utilised for comparison purposes of fingerprints; and
(h) all reports to be consolidated for court and legal purposes.

In this section, the researcher focused on identifying the role-players in the management of CIT robbery bombing scenes, guided by the primary and secondary data to distinguish between role-players who are directly and/ or indirectly involved in this process. The key role players in this study were identified to be role-players who are common and compulsory in a CIT robbery bombing scene, whereas the indirect role-players refer to those who can be substituted or are not required to physically be present on the crime scene.

The National Instruction 6/1999 (SAPS, 2015:1) emphasises the need for a competent Bomb Technician to be the first person who declares the crime scene safe. Thereafter, the National Instruction 1/2015 (SAPS, 2015:1) clarifies the need for other key role players who can act as first responders, such as the crime scene examiner and the crime scene investigator. The four (4) key role players have the mandate/ ability to undertake the roles of other indirect role-players such as the Call taker, Crime Scene Commander, Crime Scene Processing Team, Crime Scene, Supervisor, Dispatcher, and Station Commander as elaborated in Table 3.3. In this regard, the participants affirmed the roles of the Bomb Technician and the first responder in correspondence with the literature perspectives. The next section discusses the various phases in crime scene management at a CIT robbery bombing scene.

3.6 PHASES IN CRIME SCENE MANAGEMENT

The National Instruction 1/2015 outlines that crime *scene* management can broadly be categorised into eleven phases namely; Reporting, Activation, Responding, Controlling, Handover, Planning, Investigating and processing, Debriefing, Restoring, Releasing and Evaluation (SAPS, 2015:21). These phases of crime scene management are schematically outlined in Figure 3.2 below:

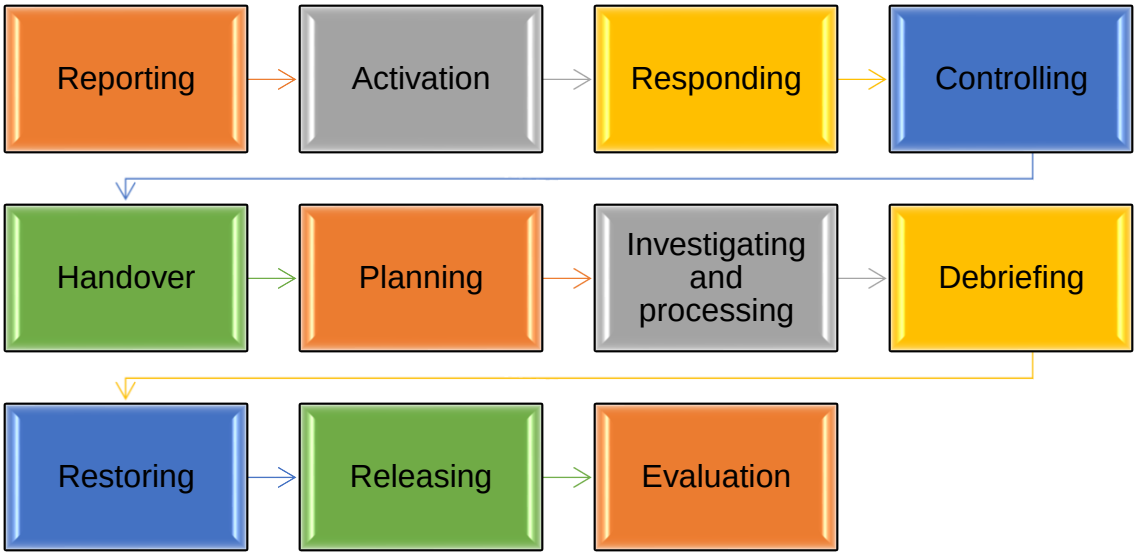


Figure 3.2: Phases of crime scene management

(Source: Compiled by the researcher from SAPS, 2015:21)

Figure 3.2 above depicts the various phases of crime scene management, which are relevant to the physical management of a CIT robbery bombing scene. For the purposes of this study, only the phases that occur physically at the CIT robbery scene are presented and discussed in accordance with the National Instruction 1 of 2015, namely: reporting, activation, responding, controlling, handover, planning and investigation and processing phase.

3.6.1 Reporting phase

The reporting phase is the initial phase, and entails the entire management of a CIT robbery bombing scene process. During this phase, the Security Personnel's update should include, but not limited to the victims involved in the scene, the witnesses, or even police officials where there was prior information or intelligence pertaining to the scheduled CIT robbery bombing scene. During this phase, the first

police official should immediately contact radio control and request the assistance of the Explosives Unit (SAPS, 2005:4), implying that the Bomb Technician should be considered as soon as the bombing incident is reported.

The reporting phase is closely linked to the activation phase, which overlaps with the reporting phase. Figure 3.3 below summarises the roles of the Station Commander, the call taker/dispatcher, and the first responder during the reporting phase:

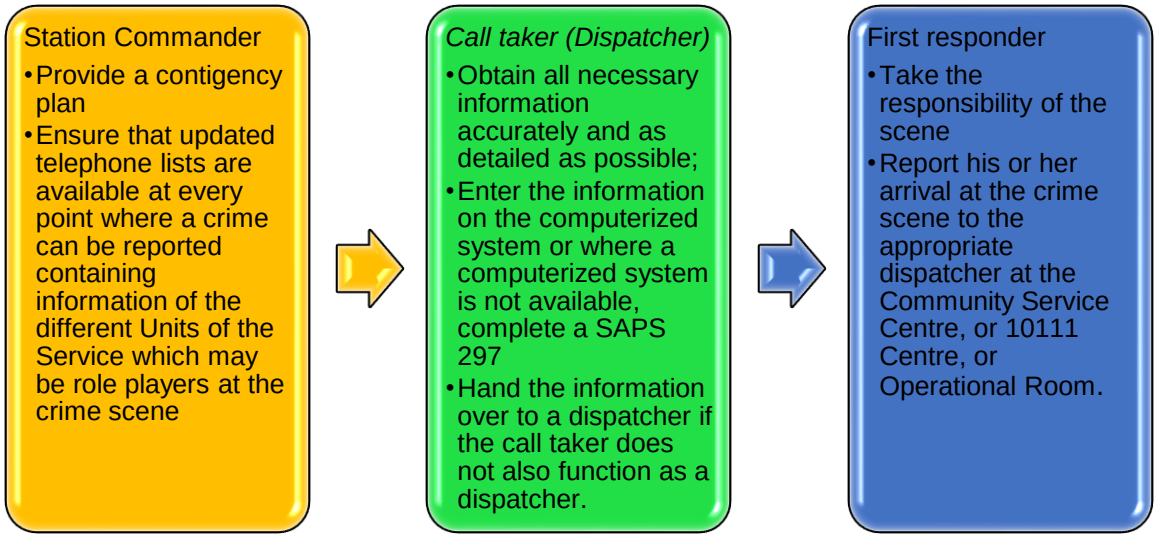


Figure 3.3: Roles during the reporting phase
(Source: SAPS, 2015:7-8)

Figure 3.3 above depicts the three (3) relevant stakeholders and their tasks during the reporting phase of a CIT robbery bombing scene. The role played by the Station Commander is highlighted, despite that he/she is often not directly involved. Notwithstanding the latter, he/she is expected to ensure that there is a contingency plan for the reporting of CIT robbery bombing scenes, as well as the availability of a call taker and dispatcher. Most often, the first responder is the call taker/dispatcher in most remote police stations, and their core role is to gather sufficient information pertaining to the reported incident and dispatching the report accordingly. In most policing areas, the call taker undertakes the role of dispatcher and first responder. Following are the participants' responses in respect of their views regarding the reporting phase.

> "The information that we get is that high calibre firearms or rifles first and they (perpetrators) will have explosives, not to say they cannot use any other methods too often the things they can but because the explosives make it easy, and 'it's faster".
>
> "There will be a command centre that will be established, whereby every role player will report to the command centre".
>
> "The first responders will be from the nearest police station, where this incident would have been reported, who will be activated first, or be notified first".

The above-cited responses are indicative of the participants' familiarity with the reporting phase during a CIT robbery bombing scene. The National Instruction 6/1999 (SAPS, 2005:2) provides guidelines that all bombing scenes should be immediately reported to the commander of the nearest explosives section, and that the Station Commander should maintain an updated contact list of the Bomb Technicians servicing the particular area. It is therefore very important for the call takers and dispatchers to gain access to the contacts of the local Bomb Technicians in order to engage them during the reporting phase. In turn, the Bomb Technicians would also assist the call taker and dispatcher with verifying the substantive nature or evidential value of the gathered crime scene evidence. The activation phase of managing a CIT robbery bombing crime scene is addressed hereafter.

3.6.2 Activation phase

According to the National Instruction 6/1999 (SAPS, 2005:3), the commander of the Explosives Unit should, upon receiving a report of a bombing incident, ensure that Bomb Technicians under his or her command attend to the scene immediately, setting the tone for the activation of a Bomb Technician to take precedence in the bombing incidents. As the activation phase occurs immediately after the reporting phase, the SAPS (2015:18) specifies that the tasks that should be conducted by the *dispatcher* as follows:

- the immediate access to a current contingency plan should be made available;
- necessary information should be obtained from the *call taker* to activate members to the *crime scene;*
- activation of the nearest available member to the *crime scene* (*first responder*), and the provision of all relevant information to such member;

- every action taken, should be recorded on the computerised system or if a computerised system is not available, the recording should be done on the SAPS 297;
- lines of communication should be maintained at all times;
- await further situation report (*SITREP)* from the *first responder;*
- backup to be activated as needed, in accordance with the contingency plan;
- the situation to be monitored at all times; and
- the support to be rendered as long as required.

Based on both the above-stated secondary data and the participants' responses, it is evident that there is a slight change between the reporting phase and the activation phase. It is for this reason that the two (2) phases are often used interchangeably. The similarity of the participants' responses regarding the two (2) phases, prompted the researcher to prevent a repetition and duplication of the responses regarding the latter phase. The primary role-player in this phase is the dispatcher, who is expected to maintain accurate records of the time he/she received the call, the first responder's arrival at the crime scene, details of the SITREP (result) from the first responder; and details of other role players that have been activated, including their telephonic responses (SAPS, 2015:8). The responding phase is discussed next.

3.6.3 Responding phase

This phase involves all the actions taken between the activation phase and the control of the crime scene. All participants in this study confirmed that the first responder is in most instances, the police official/s from the local police station as discussed in Section 3.5.2 of this study. Moreover, SAPS (2015:9) also affirms that the *first responder* is usually a SAPS member from Visible Policing (VISPOL) but may be any other police member who arrives at the *crime scene* first. The National Instruction 1/2015 emphasises that the first responder is required, during the responding phase, to approach the *crime scene* with due consideration for his or her own safety, the safety of others, and the preservation and integrity of the *crime scene* (SAPS, 2015:9). The responding phase is not mentioned in detail in the National Instruction 6/1999, except urging the Bomb Technician to immediately

respond to any CIT robbery bombing scene upon activation without delay (SAPS, 2005:3).

The primary key role player in this phase is the first responder, who is expected to assess the situation regarding initial observations, arrest the suspect as per prescripts, maintain the first responder report, ensure that all unauthorised persons are removed from the *crime scene* and that they remain outside the *outer cordon* (SAPS, 2015:9). This latter statement regarding outer cordoning was also mentioned by the participants when asked: *What does a CIT robbery bombing scene entail?* The participants responded thus:

> "So, on our arrival, we find that the case is already cordoned on".
>
> "So, basically what will happen is that this scene, will be cordoned off".
>
> "The first rule is to ensure that the scene is safe for further processing, then to cordon off to the required distances".

The above-stated participant responses show that cordoning is a pivotal process during the responding phase of managing the CIT robbery bombing crime scene, which reinforces its significance on the first responder's arrival at a CIT robbery bombing scene. Image 3.5 below demonstrates a first responder at a cordoned CIT robbery bombing scene during the responding phase:

Image 3.5: First responder at a cordoned CIT robbery bombing scene
(Source: Makhafola, 2018:np)

In Image 3.5 above, the first responder at a cordoned-off CIT robbery bombing scene during a responding phase is in police uniform, and interviews a witness,

affirming the primary data notion that the local police officials are often the first responders at a bombing scene and that cordoning the crime scene is prioritised when responding to a CIT robbery bombing scene. The above-cited cordoning-off is evidentially too close to the epicentre of the CIT robbery bombing scene. However, the appropriate cordoning procedures are discussed in Section 3.6.6 on the planning phase. The next section discusses the controlling phase, which occurs after the responding phase.

3.6.4 Control phase

According to Section 13 of the South African Police Service Act (Act No. 68 of 1998):

(a) "A member may, for the purposes of investigating any offence or alleged offence, cordon off the scene of such offence or alleged offence and any adjacent area which is reasonable in the circumstances to cordon off in order to conduct an effective investigation at the scene of the offence or alleged offence"; and
(b) "A member may, where it is reasonable in the circumstances in order to conduct such investigation, prevent any person from entering or leaving an area so cordoned off".

The interchangeability of certain roles has already been clarified in accordance with the nature of the crime scene. In that regard, the SAPS (2015:10) highlights further that the *first responder* ought to execute all the duties of the *Crime Scene Commander* until the handover to the *Crime Scene Commander* has been completed.

During this phase, the most prioritised tasks entail taking control and evaluating the crime scene, securing and protecting it, establishing a Command Centre, and ensuring the availability and credibility of witnesses (SAPS, 2015:9-11; SAPS, 2005:3). Table 3.4 overleaf provides details of the tasks and activities to be prioritised during the controlling phase

Table 3.4: Roles and activities during the controlling phase of CIT robbery bombing scene

Roles	Activities
Control and evaluation of the scene	Prevent the contamination and disturbance of the crime scene. Take over the crime scene from affected party. Identify the nature of the incident. Give a SITREP to the dispatcher. Arrange for the suspect/s to be arrested. Assist the injured persons if the member is competent and certified or contact the relevant authorities as a matter of priority. Document and make notes accordingly. Evaluate the safety status of the crime scene and request the assistance of a Bomb Technician. Direct the emergency services and other official role players at the scene.
Secure and protect the scene	Establishing an inner and outer cordon around the crime scene. Prevent contamination. Completing the exhibit log if the exhibits have to be moved at the crime scene. Dealing with deceased bodies as a source of evidence. Identifying other scenes that might have a direct connection with the primary scene, and protect such scenes. Exercising access control and maintaining the access log. Protecting the access and departure routes used by the suspects. Determining access routes to and from the crime scene. Keeping the media out of the crime scene and ensure that no members other than the crime scene examiner take photographs of the scene. Refraining from releasing information about the crime scene Recording the particulars of all persons that may have entered the crime scene.
Establish command centre	Create a command centre on the outside of the inner cordon. Establish communication between the cordons and the Command Centre. Act as crime scene commander.
Secure witnesses	Identify potential witnesses and record their particulars. Request witnesses to wait for the Investigating Officer at a designated area near the crime scene. Ensure the safety of the witnesses. Encourage the witnesses not to discuss the incident amongst themselves.

Roles	Activities
	Obtain information on suspects or persons of interest and report it.

(Source: Compiled by the researcher)

In terms of Table 3.4 above, it is during the controlling phase that more detailed management aspects of the criminal investigation are dominant. If conducted well, these management aspects improve the chances of preserving the integrity of the entire process. Immediately after the controlling of the crime scene by the first responders, the scene is handed over to the next appropriate role player as discussed in the next section.

3.6.5 Handover phase

After the control phase of managing a CIT robbery bombing scene, handing over is the next imminent phase regarding responsibilities of the crime scene by a Bomb Technician. Both the reviewed literature and primary data has established that when dealing with bombing incidents, the handing over process should be directed to the Bomb Technician as stipulated by the National Instruction 6/1999 and its prohibition of any member, except a Bomb Technician, from performing the physical post-blast investigation of a crime scene where an explosion has taken place or when it is suspected that a potential explosive device has exploded (SAPS, 2005:5). The participants in this study mentioned that the scene is handed over to the Bomb Technicians to search the crime scene for undetonated explosives or secondary devices prior to anyone obtaining access to the crime scene.

When the participants were asked to describe how a CIT robbery bombing scene is managed, they all emphasised the issue of properly cordoning the crime scene. They also emphasised a detailed manner of cordoning which they mention to be compulsory in all bombing incidents as follows:

> "… The first responders are people who don't understand actually what explosives do. So, even if you look at their cordoning, they are likely always cordoned on very close to where explosion took place and if it is towards sunset, this small evidence will not be located. So that that's exactly what happens actually in most things, you will find that the cordon is too close to the scene".

> "They will identify the furthest debris from the seat of explosion, then from that they will add 50% distance. Let's say for argument's sake, your seat of explosion

> is 100m from the furthest debris, so what they will do is add another 50m from the furthest debris. Just to expand the cordoned areas".
>
> "So, we would have to locate what in our view, which is the furthest debris from this particular explosion. And then our cordoning will start then from the furthest piece of debris will now increase our cordon from the furthest piece of debris, plus 50% of that of that distance. Meaning if your piece of debris, the furthest, you find it at 30 meters and then 'ou'll now add 50% of these being 15 meters. That, that is where now your cordoning will be sent around the scene".

The participants' responses in this study reveal that during the handover phase, the Bomb Technicians have to establish the furthest debris from the seat of explosion. The participants further revealed that after establishing the furthest debris, they then have to determine the radius from the furthest debris to the seat of explosion and then extend the cordon with additional 50% outwards. The main concern in this phase relates to the first responder's placement of the cordon tape too close to the centre of explosion, as depicted in Image 3.5. Therefore, some of the evidence might be left unprotected and contaminated outside the cordoned area.

Due to the challenges regarding incorrect cordoning as discussed in the paragraph above, the SAPS (2015:11) emphasises the need for continuity of control during the handover phase. Accordingly, the following measures are recommended for continuity of control during the handover phase (SAPS, 2015:11-12):

- The *first responder* ought to remain in control of the crime scene until he or she hands the cordoned area and the activities beyond the outer cordon over to the Crime Scene Commander; and
- The *first responder* may not leave the *crime scene* until permission is granted by the *Crime Scene Commander* or his or her commander, ensure the signing of the First Responder Report, obtain a comprehensive SITREP from the first responder, and ensure that all responsibilities as provided for in Controlling phase have been attended to.

It is imperative to implement the handover phase during the management of CIT robbery bombing scene. It should also be ensured that the crime scene is properly handed over to the relevant stakeholder/s. The participants further expressed that in all CIT robbery bombing scenes, the first responder should handover the scene to the Bomb Technician. However, the SAPS (2015:12) only mentions that the scene should be handed over to the relevant stakeholders. It is during this phase

that the proper cordoning off of the crime scene was emphasised, and the possibility of extending the cordoning off of the area to properly secure the scene.

It is during this phase that a Crime Scene Commander and an Investigating Officer should be assigned to the *crime scene;* and ascertain which additional services and experts should be requested to attend the crime scene. The SAPS National Instruction 1/2015 (SAPS, 2015:12) highlights that any person who enters the *crime scene* after the tactical situation has been attended to, and the *crime scene* has been cordoned off by the *first responder, such a person should be* wearing the appropriate *PPE*; and that no unauthorised photographic or video images are taken of the *crime scene* by SAPS members.

The taking of photographs by any role player should be recorded and photographic and video images should also be handed over immediately to the Command Centre or the *LCRC,* which would then be validated by the *Crime Scene Supervisor*. This stipulation is vital because the CIT robbery bombing scenes often trend on social media immediately after they occur; even prior to the official response by the police. Once the scene has been properly handed over to the relevant authority, the planning phase is next, as discussed hereafter.

3.6.6 Planning phase

The Bomb Technician is expected to initially take the role of a *Crime Scene Commander* during the planning phase of the CIT Robbery bombing scene, and evaluate the situation. Depending on circumstances at the CIT bombing crime scene, there could be the possibility of the first walkthrough at the particular *crime scene*, taking into consideration that the route used might need to be processed prior to the walkthrough (SAPS, 2005:4). In addition, appropriate *PPE* should be worn, and the Bomb Technician should determine the investigation goals with other role players by considering the safety of all members, expected outcome of the investigation, resources and services that are required; as well as team assembly (SAPS, 2015:13-14).

Due to the complexity of CIT robbery bombing scenes, the Crime Scene Commander and Crime Scene Management team should jointly determine measures and order in which the resources and services ought to be applied,

methods to be used during the investigation and processing, and also be present during the entire processing of the *crime scene* (SAPS, 2015:14). It is during this planning phase that the extension of the cordon tape (as mentioned during the handing-over phase) is unpacked for the purpose of formulating the next steps or strategies, better management of the entire scene, as well as minimising or avoiding any faults that could possibly imperil the entire investigation through contamination of the crime scene. An illustration on the extended cordoning-off of a CIT robbery bombing scene is depicted in Figure 3.4 below.

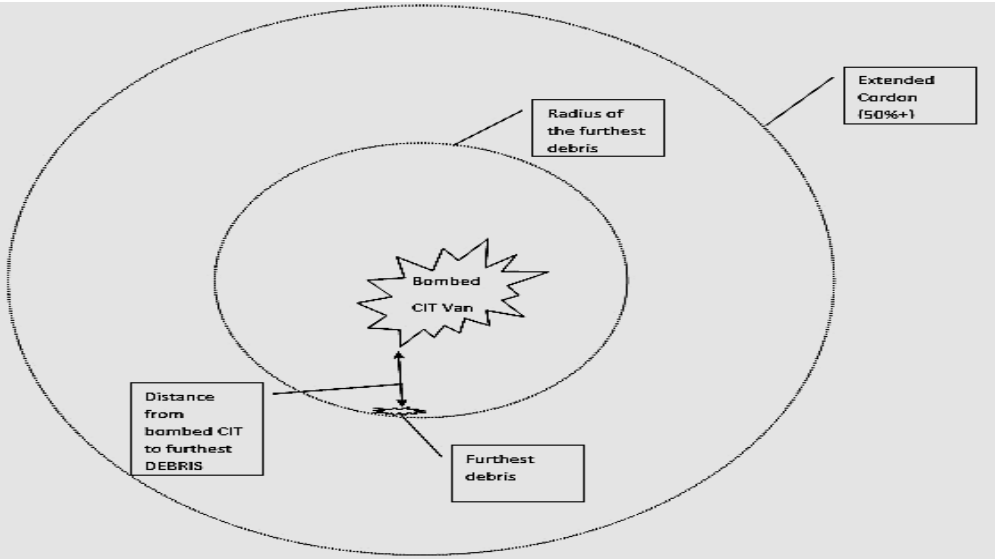


Figure 3.4: Proper cordoning off of a CIT robbery bombing scene
(Source: Compiled by the researcher)

Figure 3.4 demonstrates the Bomb Technician's role in extending the inner cordoning of the crime scene after conducting the walkthrough. The objective is to rectify any incorrect cordoning which could have occurred during the responding phase. The inner circle around the bombed CIT van in Figure 3.4 depicts the radius of the furthest debris from the centre of the explosion. The participants mentioned that an additional 50% extension should be determined in such instances. From the radius of the last debris, the Bomb Technician determines an additional 50% radius, where the inner cordon should be erected. The purpose of extending the inner cordon is to safeguard the crime scene, and to enable the following activities to occur (SAPS, 2015:12):

- to evaluate the situation to determine the compilation of the *Crime Scene Processing Team*;

- identification, noting and protecting possible physical evidence;
- represent the *Crime Scene Processing Team* at the planning session;
- determining and summoning the necessary resources for processing of the scene;
- decision on methods to be used during processing;
- establishment and activation of the *Crime Scene Processing Team*;
- keeping of the *Crime Scene Examiner* report updated; and
- to ascertain in collaboration with the *Crime Scene Commander* which other resources or other forensic experts and services are required.

Once the scene is properly cordoned off and safeguarded, it then becomes possible for thorough planning to take place. The Bomb Technician plays a pivotal role during this planning phase as he or she would have more insight about the entire crime scene after the initial first walkthrough. The greater responsibility is then for the Bomb Technician to narrate the entire layout of the crime scene to the other role-players, as well as to disclose all the categories of evidence and clues observed on the crime scene during the walkthrough.

For effective planning purposes, it is imperative for the relevant role players to consider factors such as: the size and geographical demarcation of the entire crime scene, the manner in which the crime was conducted; as well as the strength of the personnel at the crime scene. It is during the planning phase that any other stakeholder or expert is identified who might have not been summoned. Such identification is conducted for the purpose of maximising the management of this CIT robbery bombing scene. The roles of each role-player and the sequence of processing the crime scene are also unpacked during this planning phase. The researcher detailed the planning phase of the CIT robbery bombing scene management, as well as the execution of the planning phase that allows the team to proceed to the investigation and processing phases as discussed below.

3.6.7 Investigation and Processing phase

According to the SAPS National Instruction 6/1999 (SAPS, 2005:5), it is only a Bomb Technician who is allowed to perform the physical post-blast investigation of a scene where an explosion has taken place, or it is suspected that a potential

explosive device has exploded. Since the crime scene management process is part of the entire crime scene investigation, this phase is then construed as pivotal to managing a CIT robbery bombing scene. The National Instruction 6/1999 further prohibits any police official to remove any exhibit from a scene of the explosion, or when it is suspected that a potential explosive device has exploded at any station or holding area without the permission of the Bomb Technician who attended the scene (SAPS, 2005:5).

The above-cited investigation activities following a blast are linked to the gathering of both physical evidence and any other relevant information. In their response to *how* a CIT robbery bombing scene should be managed during the investigation and processing phase, the participants responded as follows:

> "So, a member from bomb disposal should be the one who enters first inspect the scene, check for secondary devices and allow other role players to enter and conduct their own investigation".
>
> "Our role actually has been to look for secondary devices to deal with it, whether by disarming or destruction or whatever we think is necessary to do at that stage".
>
> "After that, we continue with collecting the evidence that we find there, sent to the lab for analysis will also assist during the court proceeding where we can give evidence why we say that explosive explosion took place".
>
> "We do reconstruction of the seat of explosion at the scene. There'll be some remnants of explosives, that will indicate that there were sort of a low order, whereby the explosives did not fully detonate".
>
> "You can also find remnants of your particular explosives that they use like your water gel, or emulsion. We compile the report from the scene investigation and register the evidence collected, and keep all evidence in a case file where they keep all the records".
>
> "When we approach that scene, we search it where first and foremost, we must locate the furthest a piece of debris".

The diversity of the above-cited participant responses indicates the significance of the role played by Bomb Technicians during the investigation and processing phase. The participants emphasised that the Bomb Technicians/crime scene commander should be responsible for co-ordinating the communication of information to all role players, guide all the role players, ensure the identification of evidence, ensure proper *crime scene* documentation, and that all exhibits, chemicals, items or clues are collected by the examiners are referred directly to the

laboratory. Figure 3.5 depicts a generic sketch for layout of the CIT robbery bombing scene for the investigation and processing phase.

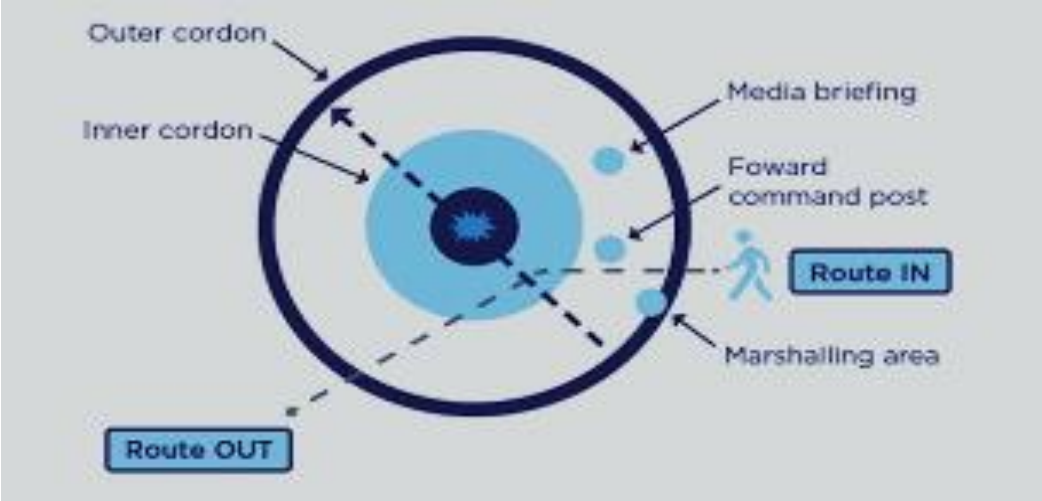


Figure 3.5: Planned sketch of CIT robbery bombing crime scene layout
(Source: College of Policing, 2013:7)

The planned sketch of the crime scene layout as depicted in Figure 3.5 above is useful in creating a visual overview of the management of CIT robbery bombing scenes during the investigation and processing phase. The darker inner circle represents the inner zone, from the point of detonation to the furthest debris. Such representation was also mentioned by the participants interviewed in this study. On the other hand, the lighter circle represents the radius from the furthest debris, adding an additional 50% to the inner circle cordon. Meanwhile, the last circle represents the outer zone, which is intended for the creation of the command post, the media briefing area, as well as the zone for all other relevant stakeholders - such as high-ranking personnel. The purpose of relying on a sketched plan of the scene is to preserve evidence through deliberate and specific actions taken with the intention of preventing contamination of damage to, or the loss or destruction of any evidence at the CIT robbery bombing scene (Lochner & Zinn, 2015:14).

This phase links directly with the objectives of managing the *crime scene* and ensuring the collection of appropriate forensic evidence at the CIT robbery bombing scene. It is important for the entire investigation and processing of the *crime scene* to be photographed or recorded for a visual representation of the particular scene.

After the investigation phase, the next phases relate to the debriefing, restoring, releasing and evaluation. These phases, however are not covered in this study.

All the phases related to managing the CIT robbery bombing crime scenes are geared towards facilitating the investigation and processing of the crime scene. It is imperative to conduct thorough investigation and processing at the CIT robbery bombing scene in order to uncover the truth about the incident relevant for the identification, prosecution and ultimate conviction of the suspected criminals after obtaining detailed evidence (Samuels, Boyd & Rau, 2000:iii). Based on the proper investigation and processing of a CIT robbery bombing scene, the North Gauteng High Court successfully sentenced four (4) accused persons to an effective 30-year jail term for a range of crimes, including: robbery with aggravating circumstances, contravention of the Explosives Act (No. 15 of 2003), conspiracy to commit a crime, illegal possession of firearms and illegal possession of ammunition (Nxumalo, 2022:1). Four (4) suspects rammed a CIT van off the road, bombed it and fled with an undisclosed amount of money. The investigation and processing of the crime scene by the Hawks' Serious Organised Crime Investigation led to the apprehension and conviction of the perpetrators (Nxumalo, 2022:1).

The phases of managing a CIT robbery bombing scene are all very important insofar as ensuring that the perpetrators are linked to the crime scene and arrested, and that all evidential material is collected without contamination. It is also important for the role-players at a CIT robbery bombing scene to always have the six (6) objectives as discussed in Section 3.4 in mind for them to optimally manage the CIT robbery scene. Therefore, there should be compliance with provisions of the National Instruction 6/1999 (SAPS, 2005:1), which regulates the handling of explosives; as well as the National Instruction 1/2015 (SAPS, 2015:13), which regulates the management of every crime scene.

The researcher developed a conceptual framework in order to illustrate the process to be followed in managing CIT robbery bombing scenes appropriately. The framework is derived from both the relevant reviewed literature and the interviews conducted with the three sampled participants in this study. Table 3.5 is an illustration of the functioning of the conceptual framework regarding the management of CIT robbery bombing crime scenes.

Table 3.5: Conceptual framework for management of CIT robbery bombing scene

Develop contigency plan for management of CIT robbery bombing scene with stakeholders	Visible policing
	Investigators (DPCI)
	Bomb technicians
	LCRC/ FSL
	Crime Intelligence
Responding to CIT robbery bombing scene	Gather and record all information about the offence.
	Take note of the type of crime scene (ie active crime scene,passive crime scene, primary/secondary crime scene).
	Consider the number of suspects,the weapons involved, and possible escape routes.
	Activate all role players mentioned in the contigency plan timeously, and keep record.
Managing the actual CIT robbery bombing scene	All stakeholders should be equiped with the required PPE.
	The scene should first be declared safe by a bomb technician prior to processing.
	All evidence should be collected by the qualified crime scene examiners (LCRC/FSL)
	The inner cordon tape should cover all remnants around the bombing scene by extra 50% from the furthest debris.
	Identify all witnesses and potential suspects, then document all their particulars.

(Source: Compiled by the researcher)

This framework for managing CIT robbery bombing scene as depicted in Table 3.5 above emanates from both the primary and secondary data presented throughout this chapter.

3.7 Three spheres of the CIT Management Framework

The framework is comprised of three (3) spheres, namely: developing contingency plan for management of CIT robbery bombing scene with stakeholders; responding to CIT robbery bombing scene; as well as managing the actual CIT robbery bombing scene. Following are the three (3) spheres of the framework as outlined by the researcher.

3.7.1 Develop contingency plan for management of CIT Robbery Bombing Scene with Stakeholders

It is within this sphere that all the relevant stakeholders involved in managing CIT robbery bombing scenes should meet and propose strategies concerning an inclusive contingency plan for responding to CIT robbery bombing scenes. The contingency plan is a legal requirement stipulated in the National Instruction 1/2015 on Crime Scene Management (SAPS, 2015:14), and should be a guiding barometer for all stakeholders to optimise their abilities towards managing all CIT robbery bombing scenes.

3.7.2 Responding to CIT Robbery Bombing Scene

This sphere encapsulates the stage when there is an actual CIT robbery bombing scene reported, and includes the covert reporting in terms of which the possibility of a CIT robbery bombing scene is reported prior to the event; as well as active reporting according to which the incident is reported while in progress. In passive reporting, the crime is only reported *post-facto*. The merits of the scene would determine the concomitant activities, especially the modus operandi of the perpetrators. Therefore, it is important for all police officials who are involved in this sphere should be able to gather and document sufficient and relevant information, disseminate the information to all the relevant stakeholders through the prescribed protocols, and activate all the required stakeholders on time.

3.7.3 Managing the actual CIT Robbery Bombing Scene

The actual activities for managing a CIT robbery bombing scene should be well coordinated and aligned to the approved contingency plan that outlines the roles for each stakeholder. The Bomb Technician, first responder, crime scene examiner and crime scene investigator should co-manage the crime scene in a concerted manner. In the event that a crime scene manager has been appointed, coordination of tasks should be initiated through the crime scene commander. Furthermore, all role players should be equipped with the relevant personal protection equipment (PPE), and stationery for documenting the entire process.

The conceptual framework for managing CIT robbery bombing scenes is a useful tool that would enable the police officials at station, cluster, provincial and national

level to manage all types of CIT robbery bombing scenes in a standardised manner. Such standardisation would enhance the apprehension and conviction of offenders. This framework for managing CIT robbery bombing scenes as outlined in Table 3.5 above should also help the SAPS achieve its policing objectives, in accordance with the provisions of Section 205(3) of the Constitution to: prevent, combat and investigate crime; maintain public order; protect and secure the inhabitants of South Africa and their property; uphold and enforce the law (South Africa, 1996).

3.8 SUMMARY

This chapter explored the main role players as well as phases in the management of CIT robbery bombing scenes from the legal prescripts within the SAPS in order to understand the guiding principles related to such incidents. The researcher thoroughly unpacked and visually presented provisions of the NI 1/2015 regarding Crime Scene Management, as well as the NI 6/1999 regarding Hazardous Substances, Radioactive Material, Explosive Items, Articles and Devices, Potentially Explosive Items). The researcher also corroborated the secondary data with the primary data collected through interviews. Various literature sources indicated that the process of managing the CIT robbery bombing scene is wholly regulated through the two SAPS National instructions mentioned above, and this was also corroborated by participants in this study. Therefore, it was important to consider the management of CIT robbery bombing scenes from the regulatory perspective in order to objectively establish the best approach to manage these sophisticated categories of crime.

The researcher then unpacked the principles of managing a CIT robbery bombing scenes by corroborating both primary and secondary data in order to illustrate these principles, six of which were found to be relevant to this study on account of their alignment to the phases of managing these crime scenes as stipulated in the National Instruction 1/2015 of the SAPS. The six principles led to the identification and explanation of the various role players who are directly and indirectly involved in the management of the CIT robbery bombing scenes. This study focused on the actual roles played by the Bomb Technician, first responder/call taker, crime scene examiner (forensic expert) and crime scene investigator because they were found

to be the key role players needed for the successful management of a CIT robbery bombing scene.

In Section 3.6 of this chapter, the researcher outlined the various phases in managing the CIT robbery bombing scene and the related investigation and processing phase in accordance with the guidelines of the National Instruction 1/2015 (SAPS, 2015:17-19). The debriefing phase focuses on ensuring that information is shared between all members involved at the *crime scene* management, and the restoring phase focuses on removing any items or equipment used during the crime scene investigation and processing. Meanwhile, the releasing phase focuses on identification of the relevant party (e.g., owner, occupant, etc.) to whom the crime scene should be handed after its management. Finally, the evaluation phase ascertains whether the *crime scene* has been managed appropriately (SAPS, 2015:17-19). The phases were not included in this study as the primary data and literature covered the phases and included the investigation and processing phase in tandem with the study objectives.

This chapter has revealed that there are parallel legal provisions for managing CIT robbery bombing scenes within the SAPS, and that these legal instruments should be interpreted in an integrated approach to ensure optimal management of CIT robbery bombing scenes. The seven phases relevant to managing CIT robbery bombing scene were evaluated through triangulation of academic literature, legislative prescripts and interviews. This triangulation enabled the researcher to reach the objective relating to evaluation of a CIT robbery bombing scene management.

Managing a CIT robbery bombing crime scene can be both risky and challenging due to the complexity of this crime type, the methods used to orchestrate such crimes, as well as the potential threats posed by undetonated explosives. In the following chapter, the researcher presents and discusses both the secondary and primary data accrued in the previous chapters for analysis and contextualisation from which recommendations and findings have been generated.

CHAPTER 4: FINDINGS AND RECOMMENDATIONS

4.1 INTRODUCTION

The primary purpose of the current chapter is to elaborate on the actual findings that emerged from this study, and further contribute to the body of knowledge through both its findings and recommendations. In that regard, it is the researcher's contention that the ensuing recommendations that accrued from the findings also informed and guided the study's epistemological contribution in respect of the management of cash-in-transit robbery bombing crime scenes in Limpopo Province particularly, and South Africa in general. The entire study was focused on the following objectives:

- To explore and describe a cash-in-transit robbery bombing scene; and
- To determine the procedure in managing a cash-in-transit robbery crime scene where explosives were used to force the cash-in-transit robbery van's cash vaults open.

As a means to achieving the above-stated objectives, this research study evaluated and discussed the management of cash-in-transit (CIT) robbery bombing scenes by means of a protracted integration of both the reviewed literature and the primary data obtained from the interviews conducted with the study's three (3) sampled participants. Additionally, such integration enabled the researcher's triangulated approach towards the convergence of the theoretical and empirical factors attendant to the management of cash-in-transit robbery bombing scenes.

The ensuing section presents a summary of the core findings of the entire study in a relatable manner, and also proposes evidence-based recommendations which can also be applied within the South African Police Services as a custodian of the Crime Scene Management process. Most importantly, the summarised core findings are presented in the context of both the afore-cited two research objectives and the themes that emerged from the analysed interview-based data.

4.2 MAIN FINDINGS

In Chapter 1 of this study, the general orientation was presented in the context of both the research topic and the methodological processes and procedures deemed to be relevant to the accomplishment of the research objectives indicated previously. The chapter further articulated and outlined the research problem under investigation in the context of the researcher's day-to-day experiences in the course of his employment-related duties within the law enforcement environment. The researcher then outlined the aim and objectives of this study and consequently formulated two (2) main research questions which focused on the research topic and attainment of the study's aim, namely: To evaluate the management of cash-in-transit robbery bombing crime scenes in Limpopo Province as outlined in Section 1.4.

Furthermore, the researcher collected, synthesised, and analysed the data in respect of the primary themes and their associated categories. Furthermore, several key theoretical concepts which are the pinnacle of this study were identified and defined in the context of both the research topic and its attendant study objectives. The methodological framework of this study was also presented in respect of the research design and approach, the sample population and target population, the data collection and data analysis procedures; as well as the measures employed to ensure trustworthiness and the applicable ethical considerations.

The researcher conducted semi-structured interviews with the three (3) purposively sampled participants within the SAPS Explosives Section in Polokwane, Limpopo Province. These participants were experts in the field of managing crime scene bombings. The researcher then articulated the following two (2) questions for the purpose of attaining the aim of this study:

- What does a cash-in-transit robbery bombing scene entail?
- What is the proper procedure for managing a CIT bombing crime scene in which explosives were used?

4.2.1 Research Question 1: What does a cash-in-transit robbery bombing scene entail?

The primary question was posed directly to the three participants as they were experts in the field of study. The researcher's follow-up or probing questions generated saturated data, from which the following sub-themes emerged: dislocation of evidence due to the blast wave; contamination of evidence while gathering scattered money; possibility of secondary bombs and shootouts; remnants of sharp objects and hazards; as well as tailored precautionary acts by perpetrators.

4.2.1.1 Dislocation of evidence due to the blast wave

From all the three participants' elicited responses, the researcher noted a common distinguishing characteristic concerning the CIT robbery bombing scene, namely: the scattered residual metal caused by the impact of the detonation or bomb blast. On that note, some of the participants' elicited responses related to the scattering of evidence due to the blast wave of the bombing. Following are the participants' responses in that regard:

> "After the explosion has taken place the way it gets stretched, metal will get broken into smaller pieces due to high detonation".
>
> "The metal is affected because during the explosion the heat can be up to 4000 degrees. So, any piece of metal which is subjected to that type of heat, or such amount of heat will definitely melt or that it gets trashed and then broken into smaller pieces".
>
> "Your back portion of the [CIT] vehicle will also be twisted, broken and torn apart. Which is the result of an explosive?
>
> "That brisance effect is the ability to have an explosive to shatter and break your metal because remembers when explosives detonate, they detonate at sonic velocity of detonation, which is about, about 4000, meters per second".
>
> "When the explosives have been used on the vehicle transporting this cash, you would find that that vehicle has been completely destroyed, th're's been metal torn apart, the metal makeup of the vehicle they have been completely destroyed".

The responses above determined that the theme: "Dislocation of evidence due to the blast wave" is indeed authentic. However, the responses varied in respect of the degree of exposure experienced by each participant. The minimal variation related

to the velocity and heat of the detonation. However, both these versions are in concurrence insofar as suggesting that after the bombing of a CIT vehicle during a robbery, a greater portion of the evidence then becomes dislocated from the main or central scene. According to the Locard principle, the perpetrator would always leave some traces of evidence on the crime scene (Lochner & Zinn, 2015:np). However, it was found that the dislocation of evidence from the epicentre of the blast (due to the blast wave) presents difficulties for the systematic location of the corresponding transfer of evidence (Van Graan & Budhram, 2015:np).

4.2.1.2 Contamination of evidence due to the pursuit of scattered money

Contamination results in the (unintended or intended) alteration or diminishment of the integrity and quality of the original exhibit or crime scene (Anderson & Rondinelli, 2013:16). Furthermore, contamination could lead to the undue compromisation of the analysis of the original transfer of evidence between a suspect and a crime scene, or between a suspect and a victim (Reiber, 2019:27). Such compromisation could even create a discordant evidential base whose analysis and conclusion could be disputed by a court of law. In this regard, the study found that the alteration of evidence can result in the erasure of the original transfer of evidence, dilute the sample, or even deposit misleading new materials on the exhibits.

In addition, the researcher noted that there was a high likelihood of evidence contamination due to the bystanders' stampede for scattered money, particularly after the CIT robbers have vacated the crime scene. The general public is tempted to chase the scattered money and thereby contaminate the evidence as revealed variously by the participants in Section 3.4 and Section 3.5.2 respectively. Moreover, Lochner et al. (2020:5), enlighten that contamination could occur through various means as evidenced by several videos obtained from social media (SABC Digital News, 2018:np; Mc Cartney, 2018:np; Mabelane, 2018:np). Following are possible incidents that might be the source of contamination which could compromise the analysis of the original transfer of evidence:

- SAPS members or other emergency responders tampering with evidence during a tactical investigative response;
- suspects interfering with a crime scene to cover-up or remove evidence;

- victims or witnesses contaminating the crime scene by handling evidence;
- animals, including pets, might cause unwanted transfer of evidence or even removal of evidence through contact or consumption;
- weather-related contamination caused by rain, wind or snow diluting or washing away evidence; or
- crime scene investigators who fail to follow proper crime scene management procedures and cause contamination of exhibits or cross-contamination between exhibits during the investigation.

The researcher noted that contamination was a common reality for investigators, and that any crime scene has a certain level of contamination prior to the scene of the crime being locked-down to prevent it from becoming an inactive incident. While issues of life and safety are at stake, the court should accept that some contamination is beyond the investigator's control. This tolerance for contamination control changes significantly once the crime scene is locked down and under control, which allows for effective crime scene management procedures to be put in place (Geldenhuys, 2018:11). In this regard, it was discovered that contamination of a crime scene presents three (3) challenges to the investigator, namely:

- prevention of contamination, if possible;
- control of on-going contamination; and
- recording of known contamination that has occurred.

Burgess (2018:5) noted that prevention of contamination is a common challenge in a CIT robbery bombing scene. The researcher further elaborated respectively in Section 3.4.3 and Section 3.4.4 and established that the phrase "control of ongoing contamination" is used because investigators cannot eliminate ongoing contamination, but can only seek to control it (Lochner et al., 2015:121). It is essential to implement the practice of identifying and recording known contamination. However, where contamination has occurred, the contaminated exhibits should be protected and saved for further analysis (Lochner et al., 2020:5).

Participants further commented that during the critical period between investigators locking down the crime scene and obtaining a search warrant, there is an enormous possibility of on-going contamination which might be difficult to prevent.

Nonetheless, in the event of reasonable grounds to believe that the evidence of a crime would be damaged or destroyed by some threat of contamination, the investigator has the authority to re-enter the crime scene without a warrant in exigent circumstances to take the necessary steps for stopping or preventing contamination and protecting the evidence (Karrim, 2020:np).

It was also determined that the very act of repeatedly entering a crime scene for gathering evidence could in itself contaminate the crime scene. The goal of ongoing contamination control is to avoid any possible damage to the forensic integrity of the crime scene and its associated exhibits. It is this goal that renders crime scene management procedures essential to the investigative process.

4.2.1.3 Possibility of secondary bombs and shootout

Attacks on cash-in-transit vehicles have become an almost daily occurrence in South Africa, with police seizing AK-47 assault rifles and other high-calibre weapons. To that effect one of the participants commented thus:

> "The information that we get is that high calibre firearms or rifles first and they (perpetrators) will have explosives, not to say they cannot use any other methods too often the things they can but because the explosives make it easy and 'it's faster".

Armoured vehicles are used for transporting and delivering large amounts of money from one retail or banking outlet to another. Assailants and CIT criminals have developed strategies and mechanisms to ambush these vehicles *en route* to these various destinations, as confirmed by the following participant response:

> "On 7th January 2020 on the N4 Freeway near Bronkhorstspruit where a cash amount of just over R25 500 000.00 (twenty-five million five hundred thousand rand) was robbed, AK47 automatic rifles and explosives were, inter alia, used during the robbery. The robbery was executed with precision by several robbers travelling in different vehicles. The armoured vehicle was bumped intentionally from behind which caused the driver to swerve off the road and end up in a ditch on the side of the freeway".

The CIT vehicles are manned by armed guards who either repel the attackers or surrender when they are under attack or besieged by marauding and heavily armed gangs of CIT robbers. Following the analysis and review of the participants' responses and various images of CIT robbery bombing scenes, the researcher found that assault rifle cartridges were always present at the crime scene, which is

an indication that random shootouts did occur, which was confirmed by the following participant:

> "There will be short fires on the scene, you'll find cartridges and the vehicle with gunshots. Obviously, your vehicle will be damaged to an extent of being ripped apart".

While the modus operandi of the CIT robbers are not novel in a country which is struggling with high crime rates such as South Africa, the novelty seems to reside in the numbers of the attackers involved in these increasingly brazen CIT incidents (Mabelane, 2018:np). Large gangs with high-calibre weapons and often stolen vehicles rob the CIT vans while offloading or loading cash from various banking and retail outlets. Explosives are mostly used to blow up these armoured CIT vehicles. The frequency of these attacks imperils ordinary South Africans' lives because some of them occur on public roads. Such a state of affairs is compounded by the fact that South Africa's already stretched police service is battling with the highest crime rates in the world (Sibanda, 2020:np).

All the interviewed three participants in this study emphasised the possibility of recovering undetonated explosives during their first walkthrough when managing the CIT robbery bombing scenes, as attested in the following participant statement:

> "We do reconstruction of the explosion at the scene. There'll be some remnants of explosives, that will indicate that there was sort of a low order, whereby the explosives did not fully detonate".

The findings revealed that the use of improvised (self-made or home-made) bombs or explosive devices by the perpetrators poses a significant risk due to the fact that such bombs are highly unstable, creating an even greater danger. These self-made bombs often have minimal safety measures, which increases the risk of uncontrolled detonations and potential danger to the police officials who are managing the CIT robbery bombing scene.

4.2.1.4 Tailored precautionary acts by perpetrators

The findings revealed that preventive measures were commonly taken by both the potential victims and police officers, as well as the perpetrators themselves. Criminals often employ preventive measures that involve multiple individuals with specific roles in the execution of a CIT robbery, which has been corroborated by an

analysis of video evidence regarding the presence of various individuals involved in CIT robberies. The following extract from one of the participants alludes to this fact.

> "Several armed persons wearing balaclavas exited from their vehicles. Shots were fired at the driver's side window of the armoured truck. Eventually the driver opened his door, and he was forced out of the vehicle".

The CIT security guards are responsible for the initial access to cash at the point of delivery. In that regard, they are also responsible for the potential threat or actual violence directed at the holders of the trunks or containers holding the cash. In this study, it was found that the CIT security guard was actually the target of the CIT perpetrators. The following excerpt attests to the above:

> "The robbers threatened to blow open the side door of the armoured truck by using explosives. This caused the driver and the crew in the back of the truck to open the side door. The crew were taken out of the truck and made to lie down on the ground. The robbers then used explosives to blow open the door of the vault inside the truck".

Based on all three of the participants in this study, it is evident that the CIT perpetrators possess a formidable array of deadly skills, and are unafraid to approach and confront the armed security personnel and CIT trucks carrying cash in their vaults. For example, the perpetrators need to know how to break bulletproof glass in a CIT van, and how to blow open the cash vault with explosives.

Various media reports such as Mabelane (2018:1) and the SABC Digital News (2018:1) have cited that observers and guards are stationed near the crime scene in order to ensure proper protection. These guards and observers are also responsible for early warning to the CIT money collectors of the presence of response teams or suspicious activity in the proximity of the cash delivery points (Smith & Louis, 2010:1-2). It was further determined that shootouts mainly occur at crime scenes where there were armed response teams or victims such as CIT crew members. Section 2.5 in Chapter 2 discussed the different types of crime scenes, at which several attacks on CIT vehicles have resulted in the death and injury of criminals, civilians and police officers, including the CIT guards when the perpetrators were confronted at these scenes.

During an analysis of all the reported CIT robbery bombing scenes between March 2020 and March 2023, it was found that the CIT robbers' modus operandi included

precautionary operational measures being taken; as well as establishing roles to be fulfilled by each member of the CIT robbery gang (Burgess, 2018:5). Accordingly, the perpetrators would ram their car into the CIT vehicle and then detonate it with explosives. In such incidents, the security guards are mostly injured or even killed, after which the perpetrators flee in their often stolen or hijacked getaway vehicles which are also fitted with false registration numbers (Lewis, 2018:np).

4.2.2 Research Question 2: What is the proper procedure for managing a cash-in-transit robbery bombing scene?

This second research question sought to establish the key practices in managing a CIT robbery bombing scene. It is imperative for the first police responders who receive the report about the CIT robbery bombing scene to be guided by the crime scene management directives entailed in Policy No. 2 of 2005 (SAPS, 2005b:1). Accordingly, all other role-players and stakeholders should be equipped with the necessary knowledge for managing such crime scenes.

Copious literature sources assert that the critical elements in managing CIT robbery bombing scenes should involve the activation of the relevant stakeholders, cordoning off the crime scene within a radius of at least 50% away from the furthest debris, allowing the Bomb Technician to conduct a thorough first walkthrough; as well as planning the entire investigation processes on the crime scene (Bonn, 2015:np; Lee & Pagliaro, 2010:10; SAPS, 2015:13-14; Singh, 2021:648).

In addition to the afore-cited literature perspectives or propositions, the ensuing Sub-sections (4.2.2.1 to 4.2.2.2) provide the empirical or participant-centric perspectives or findings in relation to the proper procedure for managing a cash-in-transit robbery bombing scene. Accordingly, the following sub-themes emerged from the proper management of a CIT bombing crime scene: activating the role of relevant role players; cordoning-off the crime scene; conducting of the first walkthrough, and stakeholder involvement in crime scene planning and investigation.

4.2.2.1 Activate the relevant role-players as soon as the incident is reported/intercepted

The SAPS directives concerning the management of crime scenes (known as Policy No. 2 of 2005), stipulate that the first police official who receives or obtains information about the CIT robbery bombing incident, should immediately activate the relevant stakeholders (SAPS, 2005b:1). Due to the sensitivity of these crime patterns, the incident might have to be reported directly to the commander who should give clear directives regarding the stakeholders who should be activated in this regard. Such a course of action emanates from the sensitivity which might be involved in respect of covert operations, as well as the potential that the perpetrators would be ready to intercept or counter police reaction.

Additionally, it has been discovered that in cases involving a bomb threat or suspected bomb-related incident, the initial management of the crime scene should be within the purview of the SAPS Bomb Technicians until such time when the area is declared safe for other stakeholders to conduct their investigation. The Explosives Section of the SAPS should then take over from the first police responder who should promptly transmit his/her arrival over the police radio at least 100 meters from the incident as soon as he/she arrived at the scene of a CIT robbery bombing (SAPS, 2005b:1). Moreover, the first responder should ensure that his/her radio is not activated when he/she is within 100 meters of the threat location in order to avoid triggering live undetonated explosive devices a radio frequency that could be transmitted in the area where the device is located.

4.2.2.2 Cordon-off the crime scene at least 50% from the furthest debris

It has been established through both primary and secondary data that cordoning is essential in crime scene management. Cordoning is an essential visual boundary for demarcating the crime scene. Depending on the nature and type of the CIT incident, there may be a need to divide cordons into the inner and outer zones (Anderson & Rondinelli, 2013:16). However, it was found that the zonal cordoning is normally supposed to be undertaken by the Bomb Technicians. The radius of the cordoning often depends on the level of risk faced by emergency responders and the range of corresponding control measures identified and implemented at the CIT

robbery bombing scene. It was established that the use of these zones (which might be similar to the representations in Figure 3.5 in Chapter 3), should be agreed upon by all stakeholders as follows:

- **Inner zone**: This is the area where the initial bombing of the CIT van occurred, or are at which the debris dispersed. Furthermore, the inner zone area is the area of greatest danger that could pose an immediate threat to the health and safety of all those located within its surroundings. The recommended standard for all bombing crime scenes is that the inner zone should be an additional 50% radius from the furthest debris; and
- **Outer zone**: This is an area uncontaminated by the impact of the initial CIT bombing. This zone is usually contaminated by the movement of people or vehicles. The warm zone should be extended to include the area of commanding the crime scene between the inner zone and the outer zone. These areas cannot be guaranteed as free from contamination.

The following excerpt depicts the participants' concern with the cordoned area:

> "The first responders are people who don't understand actually what explosives do. So, even if you look at their cordoning, they are likely always cordoned on very close to where explosion took place and if it is towards sunset, this small evidence will not be located. So that's exactly what happens actually in most things, you will find that the cordon is too close to the scene".

Based on the above, it was determined that in most cases, the first responder at the CIT robbery bombing scene should cordon the area closer to the area where the explosion took place, which might be a challenge to the bomb technician. The first responder should cordon the CIT crime scene as far as possible in order to protect all evidence against any form of contamination in order to avoid the possibilities of encountering secondary bombings.

This study has established that it is always better to reduce the cordoning, rather than extend it. The next important aspect of managing a CIT robbery bombing scene is the initial walkthrough by the Bomb Technician.

4.2.2.3 First walkthrough to be conducted by a bomb technician wearing a bomb suit

Bomb Technicians are on standby 24 hours daily for the purpose of responding to bomb threats, suspicious packages, bombings, and other explosive situations (SAPS, 2005b:1). Furthermore, the Bomb Technicians are trained to evacuate nearby innocent civilians, assess the situation, use of equipment such as bomb suits, mirrors, detectors, containment vehicles and robots in order to manage potential threats that may be posed by the effects of the explosion. The Bomb Technician's bomb suit is further equipped with a variety of safety features and other devices to mitigate any other harm that could be caused by explosives. The below-cited extract represents the participants' view concerning the first walkthrough:

> "[The] first responder who is a Bomb Technician, right from the explosive section will do what is called a first walkthrough. The first responders will be in their bomb suit, we use what they call the bomb suit, which is protective clothes that is used for attending the explosion crime scene, right".

It is evident from the above response that the first walkthrough by the Bomb Technician is highly prioritised as it reduces or eliminates all the potential risks related to post-blast effects. Soon after the Bomb Technician has conducted the first walkthrough and declared the crime scene safe, the Bomb Technician then joins the other stakeholders at the command centre to brief them about the initial observations and planning for the most probable cause of action. The Bomb Technician then hands over the crime scene to the crime scene investigator or crime scene commander in the event that a senior police official has assumed such a role. The next important key finding is the actual planning and investigation of the crime scene by all role-players.

4.2.2.4 The stakeholders planning and investigation of the crime scene

The fourth finding is premised on proper planning and actual investigation of the CIT robbery bombing scene to ensure proper crime scene management. Following the Bomb Technician's briefing of the stakeholders about their observation during the first incident walkthrough, the relevant stakeholders should then plan for a proper investigation of the crime scene. Considering the complexity of the CIT

robbery bombing scene, the actual planning and investigation would have to take place simultaneously, especially if the scene is active/live.

Taking care of the injured should take preference over all activities, with due consideration to the integrity of physical evidence. It is most important to treat the injured person/s, who can be assisted or moved to safety in the event that they are ambulant and their injuries are not severe, where they can be assisted by professional health care personnel in a designated area away from the crime scene (Geldenhuys, 2019:28). From both the literature- and the participant-based' perspectives, it was established that after marking and noting the positions in which the injured were found, all role-players ought to limit access to, and movement from the scene of the CIT bombing. Therefore, the only people who should actually move onto a crime scene are the crime scene examiners, the crime scene investigators, the Bomb Technicians, and where necessary, the crime scene commander; all of whom should be identifiable by means of their personal protection equipment (PPE) (SAPS, 2015:1). In the event that it is absolutely necessary for someone to go onto the scene, the person's full particulars and reason for entry should then be noted. As such, it was established that the planning and investigation should focus on the following aspects:

- **The stakeholders should consider witnesses** – Every person present at, or in the vicinity of the scene is a potential witness, but not everyone wants to be a witness. Witnesses should also be asked not to leave the scene without providing their full particulars or submitting statements first (SAPS, 2015:1). Moreover, they should be encouraged not to discuss the crime incident among themselves as this could influence or compromise their recall.
- **Dealing with suspects** - In CIT robbery bombing scenes, safety should always be one's primary concern. In the event of an arrest during the management of the CIT robbery bombing scene, the perpetrators should be removed from the scene and apprehended securely (SAPS, 2015:1). In addition, contact between the perpetrators and the witnesses or victims should be avoided. This step needs the unwavering support of the police.
- **Dealing with evidence** - It is important for both first responders and investigators to understand all aspects relating to crime scene evidence

(Cordner & Scarborough, 2010:71; Dutelle & Becker, 2019:309). Civilians and anyone not trained as an official photographer are not allowed to take photos as these could be declared inadmissible in court proceedings by defence attorneys representing the accused CIT robbers. Only official photographers of the crime scene investigators (CSI) should be allowed during the management of the CIT robbery bombing scene. If there is closed-circuit television (CCTV) footage from a scene, it should be brought to the attention of the investigators and secured procedurally.

- **Evidence collection** - Collection of physical evidence should be undertaken by the crime scene examiners, except in the case of evidence relating to explosives, which should strictly be collected by the Bomb Technicians (SAPS, 2018a:1). No other stakeholder should touch or remove evidence at all. To this effect, the participants emphasised that the primary rule is to protect all possible evidentiary matter. The second rule is to only remove evidentiary matter in order to protect it against damage or contamination (SAPS, 2018:1). If evidence is moved, the location should be pointed out to the police for such evidence to be collected later.

The planning and investigation phases are the crucial aspects of the crime scene management process at a CIT robbery bombing site (Jacaranda FM, 2019:np). These phases often last until the conclusion of all activities at the physical crime scene, and may overlap with the main investigation of the CIT robbery crime.

The effective management of CIT robbery bombing scene takes precedence in this research. The proper cordoning schematic illustrated in Image 3.1 provided a guideline pertaining to *how* the CIT robbery bombing scene should be controlled. Based on the discussion and examples in the literature regarding management of CIT robbery bombing scenes, the researcher developed a conceptual framework for management of the CIT robbery bombing scenes. The recommended framework for management of CIT robbery bombing scenes is depicted in Table 3.5 and Figure 4.1 (i.e., Section 3.6.7 and Section 4.3.1 respectively), which represents the epistemological contribution of this research study to the field of CIT bombing scene investigations. In that regard, the research study has proposed relevant guidelines

for managing the CIT robbery bombing scenes in respect of the following three (3) spheres:

- **Developing a contingency plan for management of CIT robbery bombing scene with stakeholders**: This sphere entails the proactive measures that have to be taken by the relevant stakeholders who are responsible for managing the CIT robbery bombing scenes. The stakeholder should develop a contingency plan for CIT robbery bombing scenes, and this contingency plan has to be regularly reviewed and updated. It was found that the essential stakeholders required for managing CIT robbery bombing scenes are: Visible policing, Investigators (DPCI), Bomb Technicians, LCRC/FSL, and Crime Intelligence.
- **Responding to CIT robbery bombing scene**: In this regard, the role-players are mandated to gather and record all information about the reported crime scene, such as type of crime scene, number of suspects, the weapons involved, and possible escape routes. Thereafter, all role players should be activated.
- **Managing the actual CIT robbery bombing scene**: This sphere is about the real-time activities of physically managing the actual CIT robbery bombing scene at the location where the crime occurred. In order to properly manage the crime scene; stakeholders should be equipped with the required PPE, the crime scene should first be declared safe by a Bomb Technician, evidence should be collected by the qualified crime scene examiners, the inner cordon tape ought to cover all remnants around the bombing scene by extra 50% from the furthest debris, then all witnesses and potential suspects should be identified and documented.

Drawing upon the identified themes from the aforementioned findings in this subsection, it is evident that the researcher's conceptual framework has successfully integrated a practical and effective solution for the management of CIT robbery bombings.

The findings presented in Section 4.2 above summarised the outcomes of the research conducted in Chapters 1, 2, and 3, in terms of which both the primary data (collected through interviews) and the secondary data (collected through the literature review) were analysed and integrated. Based on the integrated data, the

next section presents the recommendations which emerged from the findings of this study.

4.3 RECOMMENDATIONS

The recommendations proposed in this section are intended to assist in managing CIT robbery bombing crime scenes in South Africa, and possibly across various countries worldwide.

4.3.1 Framework for managing CIT Robbery Bombing Scenes

The South African Police Service has recently announced a new “high density stabilisation intervention” to tackle crime and this strategy focuses on cash-in-transit heists (SAPS, 2018c:3). The intervention includes the deployment of desk-based police officials to the streets, particularly in “identified hotspots”, while dedicated detectives track and arrest suspects who are wanted for both organised and repeated violent crimes. The strategy or contravention comes as a sequel to a multi-year rise in aggravated robbery, and a recent spike in robberies targeting cash-carrying armoured vans. It is therefore recommended that the police should focus on organised and cash-in-transit heists as this is rational and necessary. However, their training regarding the management of CIT robbery bombing scenes should be refined and expanded through the implementation of this framework. Moreover, the police should significantly reduce overall violence and harm in South Africa by treating CIT robbery bombing scenes as some embodiment or reflection of violence broadly. Additionally, the police should deploy resources and focus more efforts to address those using data-guided methods.

The other policing adjustment pertains to visible policing (VISPOL). The idea that general visible policing renders South Africa safe is very appealing, but not supported by evidence. Accordingly, it is recommended that effective sector policing should be directed at specific places (hotspots) where cash-in-transit heists are rampant. This is true of both police patrols and investigations.

It is recommended that the police should implement the proposed framework by means of a contingency plan that focuses on crime hot spots and crime types amenable to police intervention, such as aggravated CIT robbery bombings perpetrated by organised crime syndicates or groups. It is recommended further

that the police should ensure high density visibility of uniformed police officers on foot and in vehicles, supported by the SAPS Air Wing, continuous cordon and search operations, continuous roadblocks and relentless searches for wanted suspects.

Furthermore, the implementation of dedicated teams is strongly recommended to effectively track and apprehend wanted suspects involved in crimes such as CIT robbery bombings and other related offences. To achieve a sustainable reduction in crime rates, the police should prioritise the management of "red dockets" (cold cases) through dedicated efforts. This entails assigning experienced detectives who work tirelessly to gather crucial information and evidence in order to identify the perpetrators of serious and violent crimes. Additionally, it is recommended that the capacity of the emergency call centre number 10111 should be enhanced, and prompt activation of all available helicopters should be implemented whenever a CIT robbery bombing incident is reported, which would provide immediate support and response. In this regard, the researcher developed a conceptual framework for the illustration of the process to be followed in managing a CIT robbery bombing scenes for the effective management of cash in transit robbery bombing scene as demonstrated in Table 4.1 below:

Table 4.1: Recommended framework for management of CIT robbery bombing scenes

Develop contingency plan for management of CIT robbery bombing scene with stakeholders	Visible policing
	Investigators (DPCI)
	Bomb technicians
	LCRC/FSL
	Crime Intelligence
Responding to CIT robbery bombing scene	Gather and record all information about the offence.
	Take note of the type of crime scene (i.e. active crime scene, passive crime scene, primary/ secondary crime scene.
	Consider the number of suspects, the weapons involved, and possible escape routes.
	Activate all role players mentioned in the contingency plan timeously, and record be kept.
Managing the actual CIT robbery bombing scene	All stakeholders should be equipped with the required PPE.

	The scene should first be declared safe by a bomb technician prior to processing.
	All evidence should be collected by the qualified crime scene examiners (LCRC/FSL).
	The inner cordon tape should cover all remnants around the bombing scene by extra 50% from the furthest debris.
	Identify all witnesses and potential suspects, then document all their particulars.

(Source: Compiled by the researcher)

Based on the simplified conceptual framework in Table 4.1 above, it is then recommended that CIT companies and police should implement these solutions in order to keep their personnel and assets safe. This framework is envisaged to yield reliability, ease of use, and low total cost of implementation. The police should delve on addressing the crime at the source, that is, where there is no cash, there should be no crime. It is further recommended that the South African Police Service adopt the conceptual framework developed in this study by the researcher and adapt it to their specific circumstances. Such adoption should consider the Bomb Technicians, LCRC, and Crime Intelligence in their contingency plan for CIT robbery bombing crime scenes.

Furthermore, adoption of the proposed conceptual framework should enable all the relevant stakeholders to contribute meaningfully to the effective management of CIT robbery bombing scenes and create a standardised approach that ensures all police officials' ability to manage CIT robbery bombing scenes effectively. Furthermore, this framework should serve as a guideline towards curbing CIT robbery bombing scenes and improve chances of convicting the offenders as all evidence would have been gathered, preserved, and presented systematically.

4.3.2 Specific training of role-players for managing CIT Robbery Bombing Scenes

It is difficult to address the number of organisations that utilise scenario-based training for security officers and police. Nonetheless, experts agree that this type of training appears to be on the increase. It is therefore recommended that the police should make use of e-learning courses to real-world simulations. A large variety of

companies offer scenario-based training courses for law-enforcement agencies. Scenario-based training can be as simple as a quick evacuation procedure, and can also be as complex as a complete active CIT robbery bombing crime scene situation where the SAPS is partnering with security service providers, bringing them in and setting up an actual situation that might happen. Weaving the conceptual framework into corporate training initiatives has definitely become more popular. Proper initial cordoning constitutes the pinnacle of managing the CIT robbery bombing scene, as illustrated in Figure 4.1 below.

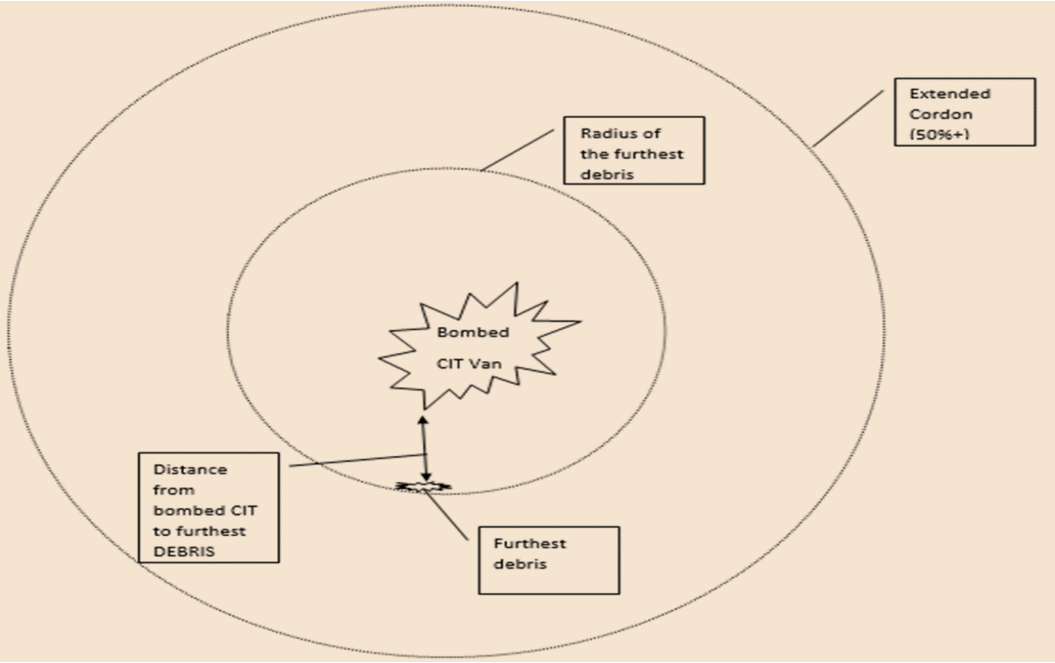


Figure 4.1: Proper cordoning of CIT robbery bombing scene

(Source: Compiled by the researcher)

As depicted in Figure 4.1 above, the recommended scenario-based police officer training regarding proper cordoning of a crime scene could be helpful in the mitigation of an organisation's risk in several different ways. In that regard, using scenarios in training is akin to becoming fluent in a language with the proficient availability of tools/words serving as the required equipment for usage in various contexts or scenarios. If a security company or SAPS is training employees to become fluent in managing responses to CIT robbery bombing scenes, it could actually save lives because these employees would then be equipped with appropriate knowledge, attitudes and skills relevant to each situation and its variable circumstances. When the employees have actually practiced and applied the

training, they would be better prepared to react appropriately and quicker in the expected manner.

It is the responsibility of the SAPS to proactively prepare officers to respond to situations appropriately (SAPS, 2010b:13; SAPS, 2017:3). Since decisions on police action could have adverse life or death consequences, scenario-based training is strongly recommended as a partial substitute for that real-world experience. From experience, the researcher further recommends that the police should be trained in closed cordons by using police vehicles. This would mean, for example, that three (3) stationary vehicles are parked across a road with police officers deployed in front of the vehicles to prevent unauthorised access to the CIT robbery bombing scene.

4.4 CONCLUSION

Contrary to their depiction popular films, real-life cash-in-transit crimes are far less exhilarating. They are cut-throat crimes that are explicitly violent in their execution and outcome. This research comprehensively discussed the phenomenon of managing CIT robbery bombing scenes and heists that are not merely opportunistic or committed by amateur criminals with limited experience. The study has both proved and corroborated that CIT robbery crimes actually take extensive planning, involving a quantitatively significant force of daring and brazen criminals. These criminals use violence, force, and any other means of achieving their criminal intentions without any hesitation. The study has discussed the current status of crime in South Africa in the context of global trends. Although there has been a considerable decline in CIT robbery bombings, the latter category of crimes is still viewed as a priority crime by the SAPS.

The characteristics of the perpetrator and common modus operandi were discussed, and there was a general acceptance that the criminals always acted in groups, using firearms and explosives as weapons of choice. Most CIT robbers are involved with organised crime, meaning that the crimes are committed by professional and experienced criminals who are not shy to use deadly force. The modus operandi of the CIT criminals showed that targets were carefully selected, as well as the time and place of transit, the difficulty of entering the vehicle and the

use of preventative technologies. Whether the desired target belonged to a certain company or bank did not greatly affect the choice of the target.

Due to the ever-increasing risk that CIT robbery bombing scenes poses, this study revealed the need for more advances in managing such crime scenes properly. This study further proposed recommendations to help in bridging the gap in managing CIT robbery bombing scenes, as discussed in Section 4.3. These recommendations are likely to help the SAPS to curb CIT robbery bombing scenes, reduce civil claims, as well as increase the conviction rates pertaining to the perpetrators of this ruthless crime type.

It is highly recommended that dedicated teams should be involved in ensuring the successful tracking and capture of wanted suspects involved in CIT robbery bombings and related offences. In this regard, it is essential for the police to prioritise the management of “red dockets” (cold cases) through dedicated efforts, which involve assigning experienced detectives who diligently gather vital information and evidence to identify the perpetrators of serious and violent crimes. Furthermore, enhancing the capacity of the 10111-call centre and promptly activating available helicopters in response to CIT robbery bombing incidents is highly recommended in order to provide immediate support and response, thereby contributing to a sustainable reduction in crime rates.

The successful implementation of the recommendations proposed in this study would rely on the establishment of measures such as formal engagement platforms, minimum standards, and financial investment in the training and procurement of resources for managing CIT robbery bombing scenes. It is further recommended that the framework for managing CIT robbery bombing crime scenes should be considered and developed in accordance with the SAPS Crime Scene Management National Instruction 1 of 2015 (which is elaborated in Section 4.3.1 of this research) as a viable guideline for implementation by the SAPS in order to improve the management of CIT robbery bombing crime scenes.

LIST OF REFERENCES

Alvi, M. 2016. *A manual for selecting sampling techniques in research*. University of Karachi, Iqra University.

Anderson, G. & Rondinelli, V. 2013. *Evidence and investigation: From the crime scene to the courtroom.* Canada: Edmond Montgomery.

Babbie, E.R. 2016. *The practice of social research*. Boston: Cengage.

Bak, M.A.R., Blom, M.T. & Tan, H.L. 2018. Ethical aspects of sudden cardiac arrest research using observational data: a narrative review. *Crit Care,* 22:212. https://doi:org/10.1186/s13054-018-2153-3.

Barbour, R. 2013. *Introducing qualitative research: A student's guide*. UK: Sage.

Bega, M. 2018. More suspects arrested in Boksburg heist. *The Citizen,* 18 May. Available at: https://citizen.co.za/news/1930837/more-suspects-arrested-in-boksburg-heist/. (Accessed on 27 September 2020).

Benson, B.C., Jones, C. & Horne, J.S. 2015. Forensic investigation of crime, irregularities and transgressions (Pp. 1-41). In Zinn, R. & Dintwe, S. (Eds). *Forensic investigation: Legislative principles and investigative practice*. Cape Town: Juta.

Bertram, C. & Christiansen, I. 2014. *Understanding research: An introduction to reading research.* Pretoria: Van Schaik.

Birks, M. & Mills, J. 2015. *Grounded theory: A practical guide.* 2nd edition. Los Angeles, CA: Sage.

Bless, C., Higson-Smith, C. & Sithole, S.L. 2013. *Fundamentals of social research methods: An African perspective.* 5th edition. Cape Town: Juta.

Bonn, S.A. 2015. *Serial killers: Modus operandi, signature, staging & posing: Understanding and classifying serial killer crime scene*. Available on: https://www.psychologytoday.com/us/blog/wicked-deeds/201506/serial-killers-modus-operandisignature-staging-posing. (Accessed on 16 April 2020).

Bouma, G.D., Ling, R. & Wilkinson, L. 2012. *The research process*. Canada: Oxford.

Bryman, A., Bell, E., Hirschsohn, P., Dos Santos. A., Du Toit. A., Masenge, A., Van Aardt, I. & Wagner. C. 2016. *Research methodology: Business and management contexts*. Cape Town: Oxford.

Burgess, A. 2018. *Heist: South Africa's cash-in-transit epidemic uncovered*. Pretoria: Penguin Random House South Africa.

Chilisa, B. 2012. *Postcolonial indigenous research paradigms. Indigenous research methodologies.* Thousand Oaks, CA: Sage.

College of Policing. 2013. *Response and recovery.* College of Policing: United Kindom. Available at https://www.college.police.uk/app/civil-emergencies/civil-contingencies/response-and-recovery. (Accessed on 27 September 2020).

Cordner, G.W. & Scarborough, K.E. 2010. *Police administration*. 7th edition. LexisNexis: New Providence.

Creswell, J.W. 2014. *Research design: Qualitative, quantitative and mixed-methods approaches.* 4th edition*.* Thousand Oaks, CA: Sage.

Creswell, J.W. & Creswell, J.D. 2018. *Research design: Qualitative, quantitative and mixed methods approaches*. 5th edition. Los Angeles: Sage.

Davies, P. & Francis, P. 2018. *Doing criminological research*. London: Sage.

De Vos, A.S., Strydom, H. & Delport, C.S.L. 2011. *Research at grassroots.* 4th edition*.* Pretoria: Van Schaik.

Doody, O. & Doody, C.M. 2015. Conducting a pilot study: Case study of a novice researcher. *British Journal of Nursing*, 24(21):1074-1078.

Du Plooy-Cilliers, F., Davis, C. & Bezuidenhout, R. 2014. Research matters. Cape Town: Juta.

Dutelle, A.W. & Becker, R.F. 2019. *Criminal investigation*. 5th edition. Jones & Bartlett: United States of America.

Flick, U. 2018. *The SAGE handbook of qualitative data collection.* Sage: London.

Fox, W. & Bayat, M.F. 2014. *A guide to managing research*. Cape Town: Juta.

Geldenhuys, K. 2018. Evidence: It's all about listening to the silent voice of the crime scene. *Servamus community-based safety and security magazine*, 111:10-16.

Geldenhuys, K. 2019. Cash-in-transit heists: - Terror on wheels. *Servamus community-based safety and security magazine*, 112:26-31.

Gerber, J. 2018. *Cash-in-transit heists could lead to losses of R470m, Parliament hears*. News24, 2018-06-13 22:00: Pretoria. Available at: https://www.news24.com/SouthAfrica/News/cash-in-transit-heists-could-lead-to-losses-of-r470m-parliament-hears-20180613. (Accessed on 17 October 2018).

Gounden, M. 2016. ‘Observing a rape crime scene with the intent to identify evidence’. Published Dissertation. Pretoria: University of South Africa.

Govender, D. & Sewpersad, S. 2010. *Corporate investigation II: Only study guide for SEP2603*. Pretoria: University of South Africa.

Gray, D.E. 2014. *Doing research in the real world.* 3rd edition. Thousand Oaks, CA: Sage.

Grove, S.K., Burns, N. & Gray, J.R. 2013. *The practice of nursing research: Appraisal, synthesis, and generation of evidence.* 7th edition. St. Louis, MO: Elsevier.

Hammond, M. & Wellington, J. 2013. *Research methods: Key concepts*. London: Routledge.

Henning, E. 2018. *Finding your way in qualitative research*. Pretoria: Van Schaik.

Hess, K.M. & Orthmann, C.H. 2010. *Criminal investigation*. California: Elsevier.

Holgersson, A. 2016. Review of on-scene management of mass-casualty attacks. *Journal of Human Security, 12*(1):91-111. https://doi.org/10.12924/johs 2016.12010091.

Jacaranda FM. 2019. *Cash in transit heists on the rise in Limpopo*. Available at https://www.jacarandafm.com/news/news/cash-transit-heists-rise-limpopo/. (Accessed on 29 November 2022).

Joubert, C. 2018. *Applied law for police officials*. 5th Edition. Juta: Pretoria.

Kabir, S.M.S. 2016. *Basic guidelines for research: An introductory approach for all disciplines*. 1st edition. Bangladesh: Book Zone Publication.

Kale, G. & Jayanth, J. 2019. *Introduction to research: A practical and scientific approach.* New York: Chapman & Hall. https://doi.org/10.1201/978135 1013277-1.

Karrim, A. 2020. *WATCH | Residents scramble for money following cash-in-transit bombing.* 03 June. News24. Available at: https://www.news24.com/news24/southafrica/news/watch-residents-scramble-for-money-following-cash-in-transit-bombing-20200603. (Accessed on 20 July 2020).

Kelly, P. 2016. Qualitative comparative research on teaching. *Research in Comparative and International Education*, *11*(4), 354-356.

Klopper, H. 2015. The coordinating nature of forensic criminalistics (Pp. 400-417). In Bezuidenhout, C. (Ed). *A Southern African perspective on fundamental criminology*. Pearson: Cape Town.

Kumar, R. 2019. *Research methodology: A step-by-step guide for beginners*. 5th edition. Thousand Oaks: Sage.

Lab, S.P. 2015. *Crime prevention: Approaches, practices, and evaluations*. Routledge: London.

Labuschagne, G. 2016. Criminal investigative analysis: An applied perspective. (Pp 276-301). In Zinn, R. & Dintwe, S. (Eds). *Forensic investigation: Legislative principles and investigative practice.* Juta: Cape Town.

Lee, H.C. & Pagliaro, E.M. 2010. *Crime scene guidebook*. United States of America: University of New Haven.

Leedy, P.D. & Ormrod, J.E. 2015*. Practical research: Planning and design.* 11th edition*.* New Jersey: Pearson.

Leedy, P.D. & Ormrod J.E. 2019*. Practical research: Planning and design.* 12th edition. New Jersey: Pearson.

Lewis, M. 2018. SABC exclusive: Cash-in-transit explosives easily accessible. SABC News. 11 June. Available at: https://www.sabcnews.com/sabcnews/sabc-exclusive-cash-in-transit-explosives-easily-accessible/. (Accessed on 27 September 2020).

Lichtman, M.V. 2014. *Qualitative research for the social sciences*. USA: Sage.

Liebenberg, P. 2019. *ATM solutions*. Conversation with researcher in Motetema, Limpopo Province. 07 June 2019.

Lochner, H.T. & Zinn, R. 2015. *Crime scene investigation*. Juta: Pretoria.

Lochner, H.T., Horne, J.S. & Van Wyk, M. 2018. *The modus operandi profile of the cash in transit robber as an exclusive crimina*l. LitNet Akademies Jaargang 15, Nommer 2, 2018, ISSN 1995-5928. 2018:211.

Lochner, H.T., Horne, J.S. & Zinn, R. 2020. *Investigation: A contemporary guide to the basic principles, procedures and forensic processes*. Juta: Pretoria.

Lothridge, K. & Fitzpatrick, F. 2019. *Crime scene investigation: A guide for law enforcement*. National Forensic Science Technology Center: United States.

Lowveld Media. 2017. *Cash in transit vehicle bombed on N4, Crocodile Gorge*, Mpumalanga. 26 July. Available at: https://www.youtube.com/watch?v=96NIPUYMkHA. (Accessed on 16 April 2020).

Mabelane, K. 2018. *Cash van heist on Matlala Road*. Capricorn FM. 28 May. Available at https://www.capricornfm.co.za/cash-van-heist-on-matlala-road/. (Accessed on 27 September 2020).

Mahamba, C. 2020. *There's been a cash-in-transit-heist every day in SA since start of 2020*. 24 March. The Star. Available at https://www.iol.co.za/the-star/news/theres-been-a-cash-in-transit-heist-every-day-in-sa-since-start-of-2020-42696814. (Accessed on 20 April 2020).

Makhafola, G. 2018. *Security guard injured in Limpopo cash-in-transit heist*. Africa News Agency. Available at https://www.iol.co.za/news/security-guard-injured-in-limpopo-cash-in-transit-heist-13374649. (Accessed on 29 November 2022).

Martin, G. 2014. *Essentials of terrorism: Concepts and controversies*. 3rd edition. London: Sage.

Matakata, Y. 2017. *Mandate of the directorate for priority crime investigation*. Pretoria: South African Police Service.

Maxfield, M.G. & Babbie, E.R. 2014. *Research methods for criminal justice and criminology.* London: Cengage Learning.

McCartney, N. 2018. *Bedfordview CIT heist criminals sentenced to 56 years.* Available at: https://www.citizen.co.za/news/south-africa/bedfordview-cit-heist-criminals-sentenced-to-56-years/. (Accessed on 29 November 2022).

Miles, M.B., Huberman, A.M. & Saldana, J. 2020. *Qualitative data analysis: A methods sourcebook.* 4th edition. USA: Sage.

Miller, L.S. & McEvoy, R.T. 2011. *Police photography.* 6th edition. USA: Elsevier.

Mills, J. & Birks, M. 2014. *Qualitative methodology: A practical guide*. London: Sage.

Mohajan, H.K. 2017. The roles of knowledge management for the development of organizations. *Journal of Scientific Achievements*, Feb 2017: 2 (2):1–27.

Mohanty, M. 2012. Physics of explosion hazards. (Pp 19-52). In, Baveridge, A. *Forensic investigation of explosions*. CRC: USA.

Mouton, J. 2011. *How to succeed in your masters & doctoral studies: A South African guide and resource book.* Pretoria: Van Schaik.

Municipalities of South Africa. 2022. *Limpopo Municipalities: Anon*. Available at: https://municipalities.co.za/provinces/view/5/limpopo. (Accessed on 18 April 2022).

Ndlhovu, R. 2019. *Heist January 2019*. 31 January. Available at: https://www.youtube.com/watch?v=hXMtYXzxk2c. (Accessed on 16 April 2020).

Neubauer, B.E., Witkop, T.C. & Varplo, L. 2019. How phenomenology can help us learn from the experiences of others. *Perspect Med Educ*, 8:90–97.

News24. 2018. *SA's cash-in-transit heist epidemic explained*. 18 May. Available at: https://youtu.be/v_CrbyV_jBw. (Accessed on 21 October 2019).

Ngulube, P. & Ngulube, B. 2015. Mixed methods research in The South African Journal of Economic and Management Sciences: An investigation of trends in the literature*. South African Journal of Economic and Management Sciences*. 18.1-13.

Nxumalo, B. 2022. *Four accused to spend 30 years in jail for cash-in-transit heist. South African Police Service*. Available at: https://www.saps.gov.za/ newsroom/msspeechdetail.php?nid=41077. (Accessed on 21 July 2022).

Osterburg, J.W. & Ward, R.H. 2010. *Criminal investigation: A method for reconstructing the past.* 6th edition*.* LexisNexis: New Providence.

Patton, M.Q. 2015. *Qualitative evaluation and research methods*. Thousand Oaks, CA: Sage.

Pijoos, S. 2019. *Gang fires on police chopper with assault rifles after heist near Bloemfontein*. Timeslive. Available at: https://www.timeslive.co.za/news/ south-africa/2019-09-03-gang-fires-on-police-chopper-with-assault-rifles-after -heist-near-bloemfontein/. (Accessed on 03 September 2019).

Pillay, K. 2017. Cash-in-transit heist foiled. *Weekend Witness*. 04 November: 4. Available at: http://thewitness.newspaperdirect.com/epaper/Interstitial.aspx. (Accessed on 16 May 2020).

Punch, K. 2014. *Introduction to social research: Quantitative and qualitative approaches.* Australia: Sage.

Ramokoka, S. 2019. *Proper planning prevents poor performance. Sabinet. Volume 2019, Issue 85: Jan 2019.* Available at: https://journals.co.za/ doi/10.10520/EJC-16a43334fe (Accessed on 14 March 2023).

Reiber, L. 2019. *Mobile forensic investigations: A guide to evidence, analysis, and presentation*. 2nd edition. New York City, US: McGraw-Hill.

Right Reason Technologies. 2010. *Crime scene investigation*. 21 May. Available at: https://prezi.com/6j2kmja19jym/crime-scene-investigation/. (Accessed on 16 April 2020).

Roper-Simpson, C.E. 2015. Detectives and the Criminal Investigation Process. (Pp 277-294). In J.A. Eterno and C. Roberson. *The Detectives Handbook*. London: CRC Press: London.

SABC Digital News. 2018. *Cash-in-transit heist in Matlala Road*. 28 May. Available at: https://www.youtube.com/watch?v=fSIQtLfe-hk. (Accessed on 16 April 2020).

SABRIC. 2010. *Glossary of terms*. Midrand: South African Banking Risk Information Centre.

SABRIC. 2020. *Annual crime stats 2019*. Pretoria: South African Banking Risk Information Centre.

Saferstein, R. 2011. *Forensic science: An Introduction*. 2nd edition. New Jersey: Pearson.

Salkind, N.J. 2012. *Exploring research*. 8th edition. University of Kansas: Pearson.

Samuels, J.E., Boyd, D.G. & Rau, R.M. 2000. *A guide for explosion and bombing scene investigation*. National institute of justice: United States Department of Justice.

Sewpersad, S. 2010. 'An investigation of the bombing of ATMs with intent to steal cash contents: Case study from Gauteng'. Published doctoral thesis. Pretoria: University of South Africa.

Shiel, W.C. 2018. *Medical definition of crime scene investigation*. Sl: Medicinenet. Available at: https://www.medicinenet.com/script/main/art.asp?articlekey=23306. (Accessed on 16 January 2020).

Showkat, N. & Parveen, H. 2017. *Non-probability and probability sampling*. e-PG Pathshala.

Sibanda, N. 2020. *Gauteng police hunt for 'heavily armed' gang after Soweto CIT heist.* The Citizen. 16 June. Available at: https://citizen.co.za/news/south-africa/crime/2303495/gauteng-police-hunt-for-heavily-armed-gang-after-soweto-cit-heist/. (Accessed on 27 September 2020).

Sicetsha, A. 2018. *CIT Heists in North West: Suspects Make It Away with Undisclosed Amount of Cash*. 06 November. Available at:

https://www.thesouthafrican.com/news/cit-heist-north-west-suspects-undis-closed-cash-photos/. (Accessed on 27 September 2020).

Silverman, D. 2014. *Interpreting Qualitative Data: Methods for analyzing talk, text and interaction*. London: Sage.

Singh, H.N. 2021. Crime scene investigation. *International Journal of Science and Research (IJSR)*. 10. 642-648. https://doi.org/10.21275/SR211112005543.

Smith, L. & Louis, E. 2010. Cash in transit armed robbery in Australia. *Trends & issues in crime and criminal justice,* July (397), pp. 1-6.

South Africa. 1977. *Criminal Procedure Act 51 of 1977*. *Government Gazette, 143 (5532).* Pretoria: Government Printers. 6 May.

South Africa. 1996. *Constitution of the Republic of South Africa.* Cape Town: Government Printers.

South Africa Getaway. 2022. *The nine provinces of South Africa*. Available at: https://southafrica-info.com/land/nine-provinces-south-africa/. (Accessed on 18 April 18, 2022).

South African Police Service (SAPS). 2005a. *National instruction 6 of 1999: Hazardous substances, radioactive material, explosive items, articles and devices as well as potentially explosive items*. Issued by Consolidation Notice 3/2005. Pretoria: South African Police Service.

South African Police Service (SAPS). 2005b. *Policy 3 of 2005: The explosives section*. Pretoria: South African Police Service.

South African Police Service (SAPS). 2010a. *Resolving of crime learning programme: Management of exhibits*. Pretoria: South African Police Service.

South African Police Service (SAPS). 2010b*. Resolving of crime learning programme: Crime scene management.* Pretoria: South African Police Service.

South African Police Service (SAPS). 2015. *National instruction 1 of 2015: Crime scene management*. Issued by Consolidation Notice 3/2015: Pretoria: South African Police Service.

South African Police Service (SAPS). 2017. *Fundamental of crime analysis*. Pretoria: South African Police Service.

South African Police Service (SAPS). 2018a. *Panel of experts' report on policing and crowd managemen*t: Established by the Minister of Police in terms of the

recommendations of the Marikana Commission of Inquiry. Pretoria: South African Police Service.

South African Police Service (SAPS). 2018b. *Police on manhunt for cash in transit robbery suspects*. Available at https://m.facebook.com/SAPoliceService /photos/2189887324371531/. (Accessed on 27 September 2020).

South African Police Service (SAPS). 2018c. Police: Your Official Free Saps Magazine. Available at https://www.saps.gov.za/resource_centre /publications/police_mag/pol_june_2018.pdf. (Accessed on 27 September 2020).

South African Police Services (SAPS). 2019. *Explosives, stolen vehicles, dagga recovered, Khayelitsha*. 27 March. Available at: https://southafricatoday.net/south-africa-news/western-cape/explosives-stolen-vehicles-dagga-recovered-khayelitsha/. (Accessed on 27 September 2020).

Statistics South Africa (StatsSA). 2018. *Crime stats simplified*. Available at: https://www.crimestatssa.com/national.php. (Accessed on 2018-10-17).

Swanepoel, J.P., Mokoena, T., Karels, M. & Basdeo, V. 2012. *Criminal procedure workbook*. Pretoria: Juta.

Terre Blanche, M., Durrheim, K. & Painter, D. 2016. *Research in practice: Applied methods for the social sciences.* Juta: Cape Town.

Theofanidis, D. & Fountouki, A. 2019. *Limitations and delimitations in the research process. Perioperative nursing* (GORNA), E-ISSN:2241-3634, 7(3):155–162. Available at: http://doi.org/10.5281/zenodo.2552022. (Accessed on 27 September 2020).

Thobane, M.S. 2014. 'The criminal career of armed robbers with specific reference to cash-in-transit robberies'. Published MA dissertation. Pretoria: University of South Africa.

Thobane, M.S. 2015. Armed robbers: Creating a perception of invisibility and invincibility through mysticism: Are sangomas providing protection. *Acta Criminologica: Southern African Journal of Criminology.* Special edition No 4/2015: Criminology in democratic South Africa: Coming of age: 151-168.

Thobane, M. 2019a. The South African cash-in-transit heist enterprise: Managing its wellspring and concatenation. *International Annals of Criminology*, 57 (1-2):198-224. https://doi.org/.10.1017/cri.2020.11.

Thobane, M.S. 2019b. Crime intelligence as a key strategy for the fight against Cash-in-Transit heists. *Servamus Community-based Safety and Security Magazine*, 112:32-33.

Thomas, G. 2013. *How to do your research project: A guide for students in education and applied social sciences*. London: Sage.

University of South Africa (UNISA). 2016. *Policy on research ethics*. Pretoria: University of South Africa.

University of South Africa (UNISA). 2020*. Policy on research ethics. Pretoria: University of South Africa*. Pretoria: University of South Africa.

Van Der Watt, M. 2015. The Preliminary Investigation Phase. (Pp 106-260). In Zinn, R. & Dintwe, S. (Eds). *Forensic Investigation: Legislative Principles and Investigative Practice*. Juta: Cape Town.

Van Graan, J. & Budhram, T. 2015. Principles of investigation. (Pp 43-66). In Zinn, R. & Dintwe, S. (Eds). *Forensic investigation: legislative principles and investigative practice.* Cape Town: Juta.

Van Graan, J. & Zinn, R.J. 2015. Child care institutions as a source of crime intelligence in combatting child sexual crimes. South African professional society on the abuse of children. Child abuse research. *A South African Journal,* 16(1):40-54.

Van Huyssteen, E. 2022. CIT suspects arrested. The Bulletin. Available at https://thebulletin.co.za/crime-2/cit-suspects-arrested/. (Accessed on 28 February 2022).

Van Rooyen, H.J.N. 2013. *Investigate corruption*. Centurion: Henmar.

Wagner, C. Kawulich, B. & Garner, M. 2012. *Doing social research: A global context.* Maidenhead: McGraw-Hill.

Walliman, N. 2017. *Research methods: The basics.* 2nd edition. USA: Routledge.

Whelan, M. & Weggel, D. 2018. *Post-blast investigative tools for structural forensics by 3D scene reconstruction and advanced simulation*. Charlotte: University of North Carolina.

White, P. 2017. *Developing research questions*. London: Palgrave.

Yin, R.K. 2014. *Case study research design and methods.* 5th edition. Thousand Oaks, CA: Sage.

Zinn, R. 2017. The policing of robbery with aggravating circumstances: Case studies of incarcerated offenders of home invasions, carjackings and cash-in-

transit heists in South Africa. *Acta Criminologica: Southern African Journal of Criminology* 30(2):12-26.

Legislation

Republic of South Africa. 1956. *Riotous Assemblies Act*. Act No 17 of 1956. Union Gazette Extraordinary, 16 March, 1956. Pretoria: Government Printers.

Republic of South Africa. 1956. *The Explosives Act*. Act No 26 of 1956. Pretoria: South African Government.

Republic of South Africa. 1977. *Criminal Procedure Act 51 of 1977*. Government Gazette 5654 of 15 July 1977. Pretoria: Government Printers.

Republic of South Africa. *South African Police Service Act*. Act no 68 of 1995. Government Gazette 16758 of 15 October 1995. Pretoria: Government Printers.

Republic of South Africa. 1997. *Criminal Law Amendment Act*. Act No 105 of 1997. Gazette 19475 of 13 November 1998. Cape Town: Government Printers.

Republic of South Africa. 2000. *Firearms Control Act.* Act No 60 of 2000. Government Gazette 22347 of 1 June 2001. Cape Town: Government Printers.

List of Cases

Mbanjwa v S (A113/2020) [2020] ZAGPPHC 251 (8 June 2020).

Mothwa v The State (124/15) [2015] ZASCA 143 (1 October 2015).

Naidoo v S (A969/14) [2016] ZAGPPHC 438 (9 June 2016).

Ngubane and others v S (AR158/17) [2018] ZAKZPHC 2 (2 March 2018).

Nkabinde v The State (115/17) [2016] ZASCA 75 (01 June 2017).

S v Letshoa and Others (CC48/2019) [2020] ZAGPPHC 347 (22 July 2020).

ANNEXURES

6.1 ANNEXURE A: INTERVIEW SCHEDULE

INTERVIEW SCHEDULE: SAMPLE A

PARTICIPANT NUMBER: _____

TOPIC: AN EVALUATION ON THE MANAGEMENT OF CASH-IN-TRANSIT ROBBERY BOMBING CRIME SCENES IN LIMPOPO PROVINCE

I am Thabang Joy Bogopa a post graduate student that is currently busy conducting research for the degree - “Masters of Arts in Criminal Justice: Police Science, Forensic Science and Technology (PFS)” at the University of South Africa. My supervisor is Prof Juanida Horne who can be contacted at the university on 012 433 9415 with regards to any matters pertaining to my research.

The aim of the research is: To evaluate the management of cash-in-transit robbery bombing crime scenes in Limpopo Province. The following research questions will be answered in this study:

- Research question 1: What does a cash-in-transit robbery bombing scene entail?
- Research question 2: What is the proper procedure for managing a CIT bombing crime scene in which explosives were used?

My research seeks to explore and describe a cash-in-transit robbery bombing scene; and determine the proper procedures for managing a CIT robbery bombing crime scene. Your participation in this research is of major importance for the successful answering of the research questions.

The researcher is bound to his assurances and guarantees by the research ethics code of the University of South Africa. The information you provide will be used in a research project for a Master of Arts in Criminal Justice: Police Science, Forensic Science and Technology (PFS) at the University of South Africa. The analysed and processed data will be published in a research report.

The interviewer will personally note your answers on paper and record the interview. Should any question be unclear, please ask the researcher for clarification. Only one answer per question is required. When answering the questions, it is very important to give your own opinion.

All interviews will be treated as strictly confidential

Your participation in this study is voluntary and can be terminated at any time. All responses will be treated with the utmost confidentiality by the researcher and all participants will remain anonymous. The names of the organisations participating in this will not be included. All participants will be allocated a number and completed interview schedules will be captured in an electronic database. All computerised notes will be stored on a secure, password-protected computer. Transcribed interviews will be kept in a secure place for a period of three years as required by the university rules. The transcribed interviews will thereafter be destroyed.

Research agreement between researcher and participant:

I undertake not to disclose your name.
All information will be treated confidentially.
When reporting on the findings, no names of individuals or companies will be mentioned.
You are free to terminate the questioning at any stage of the interview.

The above information has been explained to me and I understand it. My name will not be disclosed, and I will allow my information or responses to be used in a confidential manner that will not harm me or my employer in any way and I am also aware that the thesis might be published in future.

If you have any queries about this interview schedule, please contact Prof Juanida Horne on 012 433 9415 and via email at hornejs@unisa.ac.za

Thank you for your cooperation.
Thabang Joy Bogopa

Master of Arts in Criminal Justice student
UNISA

_____ _____ _____

Signature of participant **Place** **Date**

PARTICIPANT

I hereby give permission to be interviewed and that information supplied by me can be used in this research.

YES	NO

SECTION A: BACKGROUND INFORMATION

1. For how many years have you been a police official?

_____

2. For how long have you been a bomb technician?

_____

3. What relevant Tertiary qualification do you have?

_____

4. What courses have you completed relevant to bomb disposal?

_____

_____

_____

SECTION B: RESEARCH QUESTIONS

5. What does a cash in transit robbery bombing scene entail? How is it in your experience?

_____

_____

_____

6. What is the proper procedure for managing a CIT bombing crime scene in which explosives were used?

_____

_____

_____

Thank you for participating in this interview.

6.2 ANNEXURE B: INFORMED CONSENT PARTICIPANT

PARTICIPANT INFORMATION SHEET

Ethics clearance reference number: ST 78-2020
Research permission reference number: 3/34/2

2020-07-31

Title: An Evaluation on the management of a cash in transit robbery bombing crime scenes

Dear Prospective Participant

My name is Mr Thabang Joy Bogopa and I am doing research with Prof JS Horne, a professor, and Mrs T Van Niekerk, a senior lecture in the Department of Police Practice towards a Master of Arts in Criminal Justice at the University of South Africa. We are inviting you to participate in a study entitled An Evaluation on the management of a cash in transit robbery bombing crime scenes.

WHAT IS THE PURPOSE OF THE STUDY?

I am conducting this research to evaluate the management of cash-in-transit robbery bombing crime scenes in Limpopo Province.

WHY AM I BEING INVITED TO PARTICIPATE?

This study targets the bomb technicians within the Explosives Section Polokwane, in Limpopo to give insight into the management of Cash in Transit (CIT) robbery bombing scenes. Bomb Technicians were purposively sampled by the researcher as they are known to be the custodians of managing all bombing incidents until it is safer for other members to process the scene.

WHAT IS THE NATURE OF MY PARTICIPATION IN THIS STUDY?

Describe the participant’s actual role in the study.

The study involves audio taping semi-structured interviews via zoom online meeting platform for a duration of 1 hour, whereby two open-end questions will be asked in accordance with the interview schedule. Follow-up questions will be asked where clarity is needed.

CAN I WITHDRAW FROM THIS STUDY EVEN AFTER HAVING AGREED TO PARTICIPATE?

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

There will not be any financial benefits from participating in this study. South African society would benefit from information regarding the dangers of unexploded bombs and resultant contamination of evidence on a crime scene. As such, the study's findings are also an enhancement of law and order maintenance in society, and support to the criminal justice system (CJS) regaining the respect and trust of society.

ARE THERE ANY NEGATIVE CONSEQUENCES FOR ME IF I PARTICIPATE IN THE RESEARCH PROJECT?

There are no potential risks or harm that are anticipated to affect the participants of this study.

WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

You have the right to insist that your name will not be recorder anywhere and that no one, apart from the researcher and identified members of the research team, will know about your involvement in this research. Your answers will be given a code number or a pseudonym and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings.

Your answers may be reviewed by people responsible for making sure that research is done properly, including the transcriber, external coder, and members of the Research Ethics Review Committee. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

The anonymous data may be used for other purposes, such as a research report, journal articles and/or conference proceedings. Your privacy will be protected in any publication of the information.

HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

Hard copies of your answers will be stored by the researcher for a period of five years in a locked cupboard/filing cabinet *at No 253 Makotse, Lebowakgomo, 0737* for future research or academic purposes; electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. If necessary, information will be destroyed by shredding hard copies and/or electronic copies will be permanently deleted from the hard drive of the computer through the use of a relevant software programme.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

There will be no payment or any incentives for participating in this study.

HAS THE STUDY RECEIVED ETHICS APPROVAL?

This study has received written approval from the Research Ethics Committee of the College of Law, Unisa. A copy of the approval letter can be obtained from the researcher if you so wish.

HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings, please contact Thabang Joy Bogopa on 015 263 6990 or email bogopatj@gmail.com. The findings are accessible for 5 years.

Should you have concerns about the way in which the research has been conducted, you may contact Prof JS Horne on E-mail: hornejs@unisa.ac.za Tel: (012) 433-9462. Contact the research ethics chairperson of the CLAW Research Ethics Committee, Prof JS Horne on E-mail: hornejs@unisa.ac.za Tel: (012) 433-9462 if you have any ethical concerns.

Thank you for taking time to read this information sheet and for participating in this study.
Thank you.

Thabang Joy Bogopa

CONSENT TO PARTICIPATE IN THIS STUDY

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the <insert specific data collection method>.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname…… (please print)

Participant Signature……..Date……

Researcher's Name & Surname……(please print)

Researcher's signature……..Date……

6.3 ANNEXURE C: UNISA ETHICAL CLEARANCE

UNISA

UNISA 2020 ETHICS REVIEW COMMITTEE

Date: 2020:07:31

ERC Reference No. : ST78
Name : TJ Bogopa

Dear Mr Thabang Joy Bogopa

Decision: Ethics Approval from 2020:07:31 to 2023:07:31

Researcher: Mr Thabang Joy Bogapa

Supervisor: Prof T Budhram

An Evaluation on the management of a cash in transit robbery bombing crime scenes

Qualification: MA Criminal Justice

Thank you for the application for research ethics clearance by the Unisa 2020 Ethics Review Committee for the above mentioned research. Ethics approval is granted for 3 years.

*The **Low risk application** was **reviewed** by the CLAW Ethics Review Committee on 31 July 2020 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

1. **The researcher will ensure that the research project adheres to the relevant guidelines set out in the Unisa Covid-19 position statement on research ethics attached. Provisional authorisation is granted.**

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

2. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
3. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the CLAW Committee.
4. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
5. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
6. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
7. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
8. No field work activities may continue after the expiry date **2023:07:31**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number ST 78-2020 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Yours sincerely,

Prof T Budhram
Chair of CLAW ERC
E-mail: budhrt@unisa.ac.za
Tel: (012) 433-9462

Prof M Basdeo
Executive Dean : CLAW
E-mail: MBasdeo@unisa.ac.za
Tel: (012) 429-8603

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

6.4 ANNEXURE D: INDEMNITY, UNDERTAKING & DECLARATION TO CONDUCT RESEARCH IN THE SAPS

INDEMNITY, UNDERTAKING & DECLARATION BY RESEARCHER WHO WILL BE CONDUCTING RESEARCH IN THE SAPS

Full name & surname of researcher:	*Thabang Joy BOGOPA*
ID / Passport number:	*9009245847084*

Hereby undertake to adhere to:
the conditions and restrictions as specified in my application to conduct research in the SAPS,
any additional limitations imposed by the Provincial Commissioner as specified in my final letter of approval,

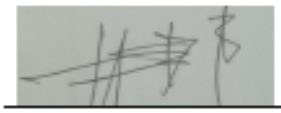
I indemnify the Service (SAPS) against:

- any claim for any loss or damage caused by or to any equipment used during conducting the research and
- any claim for any loss or damage during conducting the research or any other moneys for which the Service may be held liable as a consequence of its involvement in the project.

I further undertake to:

- at my own exclusive cost, provide all equipment of whatsoever nature used to conduct the research,
- pay any fees or comply with further procedures in the Service, such as fees or procedures applicable to obtain access to a record of the Service,
- conduct the research without any disruption of the duties of members of the Service and where it is necessary for the research goals, research procedure or research instruments to disrupt the duties of a member, prior arrangements will be made in good time with the commander of such member,
- not divulge or publish information received from a member of the Service or any person with whom I conducted an interview with before the final approval of such information by the Provincial Commissioner as presented in my final research paper and
- not divulge or publish information from a document or other source, obtained outside the scope of the Access to Information Act, 2000 (Act 2 of 2000) to which I might have had access to during my research, before the final approval of such information by the Provincial Commissioner as presented in my final research paper. I take note of the fact that if such information pertains to the investigation of a crime or a criminal case, my publication thereof, may make me guilty of defeating or obstructing the course of justice or contempt of court.

- Before any publishing of any information or the research paper or an extract from it, I will submit a copy thereof to the Provincial Research Coordination Centre and allow the SAPS fourteen working days to peruse the report in order to determine whether it complies with all conditions for the approval of the research before it is published in any manner and, if it is found not to comply with any condition, that I will not publish it.
- For the purpose of this research in the SAPS, publish means "any form of communication, other than communication to the Service".
- I acknowledge that depending on the complexity of the application, it may take between 2 to 4 weeks to process this application.

SIGNATURE OF RESEARCHER:	
SIGNED AT:	*Polokwane*
DATE:	*2020-08-04*

Initial page here: 

6.5 ANNEXURE E: SAPS PERMISSION FOR STUDY TO BE CONDUCTED IN SAPS

SUID-AFRIKAANSE POLISIEDIENS SOUTH AFRICAN POLICE SERVICE

Privaatsak/Private Bag X 94

Verwysing/Reference:	3/34/2
Navrae/Enquiries:	Lt Col Joubert AC Thenga
Telefoon/Telephone:	(012) 393 3118
Email Address:	JoubertG@saps.gov.za

THE HEAD: RESEARCH
SOUTH AFRICAN POLICE SERVICE
PRETORIA
0001

A. The Divisional Commissioner
FORENSIC SERVICES

B. The Provincial Commissioner
LIMPOPO

PERMISSION TO CONDUCT RESEARCH IN SAPS: AN EVALUATION ON THE MANAGEMENT OF A CASH IN TRANSIT ROBBERY BOMBING CRIME SCENES: UNIVERSITY OF SOUTH AFRICA: MASTER DEGREE: RESEARCHER: TJ BOGOPA

A. 1. The above subject matter refers.

2. The researcher, Mr TJ Bogopa, is conducting a study title: An evaluation on the management of a cash-in-transit robbery bombing crime scene, with the aim ***to ascertain how a cash-in-transit robbery bombing crime scene should be managed.***

3. The researcher is requesting to interview twelve (12) SAPS Bomb Technicians at the Explosives Section, Limpopo Province.

4. The proposal was perused according to National Instruction 1 of 2006. This office recommends that permission be granted for the research study, subject to the final approval and further arrangements by the offices of the Divisional Commissioner: Forensic Services.

5. We hereby request the final approval by your office if you concur with our recommendation. Your office is also at liberty to set terms and conditions to the researcher to ensure that compliance standards are adhered to during the research process and that research has impact to the organisation.

6. If approval is granted by your office, this office will obtain a signed undertaking from researcher prior to the commencement of the research which will include your terms and conditions if there are any and the following:

PERMISSION TO CONDUCT RESEARCH IN SAPS: AN EVALUATION ON THE MANAGEMENT OF A CASH IN TRANSIT ROBBERY BOMBING CRIME SCENES: UNIVERSITY OF SOUTH AFRICA: MASTER DEGREE: RESEARCHER: TJ BOGOPA

6.1. The research will be conducted at his/her exclusive cost.

6.2 The researcher will conduct the research without the disruption of the duties of members of the Service and where it is necessary for the research goals, research procedures or research instruments to disrupt the duties of a member, prior arrangements must be made with the commander of such member.

6.3 The researcher should bear in mind that participation in the interviews must be on a voluntary basis.

6.4 The information will at all times be treated as strictly confidential.

6.5 The researcher will provide an annotated copy of the research work to the Service.

6.6 The researcher will ensure that research report / publication complies with all conditions for the approval of research.

7. If approval is granted by your office, for smooth coordination of research process between your office and the researcher, the following information is kindly requested to be forwarded to our office:

- **Contact person**: Rank, Initials and Surname.
- **Contact details**: Office telephone number and email address.

8. A copy of the approval (if granted) and signed undertaking as per paragraph 6 supra to be provided to this office within 21 days after receipt of this letter.

9. Your cooperation will be highly appreciated.

B. 1. Copy for your information.

MAJOR GENERAL
THE HEAD: RESEARCH
DR PR VUMA

DATE: 2020 -09- 14

6.6 ANNEXURE F: SAPS AUTHORISATION OF STUDY TO BE CONDUCTED

SUID-AFRIKAANSE POLISIEDIENS

SAP 21

SOUTH AFRICAN POLICE SERVICE

Private Bag x 9428

Verwysing Reference	2/1/2/1 (21/2020)
Navrae Enquiries	Brigadier Mphahlele Ngoveni Colonel Tau
Telefoon Telephone	015 290 6300/6090
Faksnommer Fax number	015 230 1023

PROVINCIAL COMMISSIONER
SOUTH AFRICAN POLICE SERVICE
POLOKWANE
LIMPOPO

A. Thabang Joy Bogopa
Box 1826
Lebowakgomo
0737

AUTHORITY TO CONDUCT RESEARCH IN SAPS: AN EVALUATION ON THE MANAGEMENT OF A CASH IN TRANSIT ROBBERY BOMBING CRIME SCENES: MASTERS DEGREE: UNISA: RESEARCHER: TJ BOGOPA.

A.1. Your authority to conduct research as indicated above is herewith granted.

2. The researcher should take care of the following:

- The research will be done at your own cost.
- The research will be conducted without any disruption of the duties of personnel.
- The information will at all times be treated strictly confidential.
- Participation in the interviews must be on a voluntary basis.
- You are expected to donate an annotated copy of the research work to the service.

3. Hoping you will find everything in order

LIEUTENANT GENERAL
PROVINCIAL COMMISSIONER
LIMPOPO PROVINCE
NJ LEDWABA

Date 2020-09-25

6.7 ANNEXURE G: EDITOR'S LETTER

TO WHOM IT MAY CONCERN

I, the undersigned, hereby confirm my involvement in respect of the language and academic editing, technical compliance, text redaction and research methodology compatibility for the manuscript of **Mr Thabang Joy Bogopa (Student Number: 50114875)** submitted to me as part of his fulfilment of the requirements for the Master of Arts (MA) degree registered with the University of South Africa (UNISA), and entitled:

An evaluation on the management of cash-in-transit robbery bombing crime scenes in Limpopo Province

As an independent academic editor, I attest that all possible means have been expended to ensure the final draft of **Mr T.J. Bogopa's** dissertation manuscript reflects both acceptable research methodology practices and language control standards expected of postgraduate research studies at his academic level.

In compliance with expected ethical requirements in research, I have further undertaken to keep all aspects of **Mr T.J. Bogopa's** study confidential, and as his own individual initiative.

Sincerely.

T.J. Mkhonto

BA Ed: North-West University, Mahikeng (1985)
MEd: School Administration; University of Massachusetts-at-Boston, USA, Harbor Campus (1987)
DTech: Higher Education Curriculum Policy Reform, Design & Management; University of Johannesburg (2008)

All enquiries:

E-mail: mkhonto9039@gmail.com
Cell: +27(0)60 401 8279

Signed: _____ **Date:** _18 July 2023_

Dr T.J. Mkhonto dd/mm/yyyy
Independent Academic Editor

Professional EDITORS' Guild 30 1993–2023
Promoting excellence in editing

Themba J Mkhonto
Associate Member

Membership number: MK4001
Membership year: February 2023 to March 2024

060 401 8279
mkhonto9039@gmail.com

www.editors.org.za

6.8 ANNEXURE H: TURNITIN DIGITAL RECEIPT

turnitin

Digital Receipt

This receipt acknowledges that Turnitin received your paper. Below you will find the receipt information regarding your submission.

The first page of your submissions is displayed below.

Submission author:	Thabang Bogopa
Assignment title:	Complete dissertation/thesis DRAFT
Submission title:	Dissertation Draft
File name:	Dissertation_for_turnitin.docx
File size:	6.01M
Page count:	135
Word count:	42,024
Character count:	233,740
Submission date:	15-Jun-2023 12:53PM (UTC+0200)
Submission ID:	2116568345