THE COMBATING OF CABLE THEFT IN DURBAN RAILWAY STATIONS

By

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DECLARATION

I, Liso Nobanda, declare that the dissertation submitted in fulfilment of the requirements for the degree of Master of Social Science in Criminology and Forensic Studies at the University of KwaZulu-Natal (UKZN), entitled “The combating of cable theft in Durban railway stations ”, represents my own original work, both in conception and execution (except where acknowledgements indicate otherwise), and that all sources that I have consulted and quoted have been acknowledged by means of a comprehensive list of references.

Signature of Researcher: Date: …….

DEDICATION

This dissertation is dedicated to the former South African National Defence force (SANDF) officer – Lieutenant Colonel Vuyani Vincent Nobanda - formerly attached to the Durban Regional Works Unit (KZN) for teaching me to dream, to broaden my horizons, and to never let challenging circumstances defeat my resolve to succeed. Most importantly, I am very lucky to still have you around. You have been so supportive throughout this journey.

I further dedicate this dissertation to my mother, Nozipho Wilheminna Nobanda, for always motivating me to go for what I want in life. It is your guidance and your support that kept me going.

In addition, I dedicate this dissertation to the following people who are very special in my life:

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- My nephew (Solulele, Akhiwe);
- My niece (Zingce, Akhanani);
- My son (Alande Konwaba Lisolethu [veni]) named after my late sister's name. Son, you are the fountain of inspiration and I want to thank you for shaping my life to be what it is today and for choosing me to be your father.
- My late sisters [Siphosethu (Noliza), Konwaba (Nolatu)] May your souls rest in peace. Your good deeds will always be remembered.

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ABSTRACT

The seriousness of cable theft in South African communities cannot be ignored; it highly deserves attention and quick interventions. The associated damages caused by this scourge are irreversible to the infrastructure of Durban rail stations of KwaZulu-Natal (KZN) in particular. The Passenger Rail Agency of South Africa (PRASA) in Durban is currently losing billions of rands resulting from cable thieves vandalising railway stations. However, the impact of cable theft further hampers economic growth and business productivity, directly curbing job creation in the process, leaving many residents in the surrounding squatter camps compromised, since trains cause delays on the railway stations, leaving commuters with no means of transport to and from work.

This study assesses the nature of cable theft in Durban railway stations, looking at probable contributory factors to this crime. The study further examines the existing strategies (and their effectiveness) in response to cable theft as well as the existing challenges faced by Durban railway stations in combating cable theft. This study adopted a qualitative research approach through the use of semi-structured interviews to solicit perceptions and experiences of PRASA 'Security Personnels – Cable theft investigators and cable theft railway patrollers' involved in preventing and combating cable theft in Durban railway stations. The findings of this study confirmed that cable theft in Durban railway stations is a serious crime and the investigations conducted by these personnel (cable theft investigators and cable theft railway patrollers) revealed that when cables are stolen, the rail service normally shuts down, causing train derailments, among other problems. Furthermore, the study found that scrap metal dealers are the key contributors to cable theft in Durban railway stations as well as the shortage of resources, which include lack of manpower or police visibility and installed cameras. Lastly, the study found that the police normally lose dockets handed to them by PRASA cable theft investigators and there is a lack of internal and external (SAPS) reporting structures.

For recommendations, this study proposes that more attention must be paid to scrap metal dealers by offering strict rules on the issuing of trading licences. Furthermore, severe sentences for possible offenders should be practiced, and better working relations should be established, with more resources geared to security departments. The implementation of relevant stakeholders'

partnerships and a branded ‘Cable Theft Specialised Unit’ could also assist in combating cable theft. The amendments of the existing legislative frameworks and alignment with technological advances and improvements would be of great assistance as well to put a stop to this crime.

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LIST OF ACRONYMS

Acronym	Description
ATOC	Association of Training Companies
BRN	British Railway Network
BTP	British Transport Police
COGTA	Cooperative Governance and Tradition Affairs
CPI	Combined Private Investigation
DA	Democratic Alliance
ESKOM	Electricity Supply Commission
FBI	Federal Bureau of Investigation
GSM	Global System for Mobile
LME	London Metal Exchange
MTN	Mobile Telephone Network
NCP	National Council of Provinces
NCPS	National Crime Prevention Strategy
NR	Network Rail
PRASA	Passenger Rail Agency of South Africa
SACCI	Chamber of Commerce and Industry
SAPF	South African Police Force
SAPS	South African Police Services

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CHAPTER ONE

GENERAL ORIENTATION AND PROBLEM FORMULATION

1.1. STUDY BACKGROUND

The current (2018) Deputy Minister of Cooperative Governance and Traditional Affairs [CoGTA] - Andries Carl Nel (2014) in News24 (2014:n.p) – has stated that "the Criminal Justice System (CJS) does not deal effectively with cable theft and theft of public infrastructure and there are presently weaknesses in our CJS, since matters often get treated as petty crimes". In response, "the government established a working group, consisting of Ministers of CoGTA, police, justice, state security and public enterprises, to deal with this problem. He also emphasised that "what we want to do in the short-term is to ensure that there is better information and intelligence shared among law enforcement, municipalities and industry about cable theft" (News 24, 2014:n.p).

Furthermore, Pretorius (2012:1) reveals that the former chairperson of the Parliamentary Portfolio Committee on Communications (Sikhumbuzo Kholwane) reiterated in February 2012 that copper cable theft is indeed a national crisis. In addition, Natasha Michael [Democratic Alliance – DA former spokesperson on Public Enterprises] (on March 2012) stated that the time has come to take serious action to put a stop to copper theft. In connection with these statements, copper cable theft in South Africa is a serious threat to the effective functioning of the country's infrastructure and to nation's Gross Domestic Product (GDP). Thus, interested parties are calling for its governing bodies to secure national assets, including telecommunications, electricity and transport, including copper. On the 18th of August 2011, during the government's infrastructure development meeting in Pretoria, the then Minister of Energy Dipuo Peters said, the copper cable theft amounts to economic sabotage, which disrupts energy, transport and telecommunications service delivery. It affects living standards and drives up the cost of goods and transport. Moreover, disrupts operations, and inhibits job creation, exports and investment (Daily News, 2011 in Van Niekerk, 2015:1).

The South African Chamber of Commerce and Industry (SACCI) reports that the cable theft barometer level increased to R 13.6 million in April from R 12.6 million in March 2015. The April figure is 7.08% higher than the March figure and 0.11% lower than a year of 2014 (Polity, 2015:n.p). Scott Berinato of Detroit Edison [DTE] Energy (in Arendse, 2010:1), proclaims that, internationally, copper cable theft is linked to or may have been caused by the sudden rise in demand for this semi-precious metal in the United States of America (USA). He further mentioned that in 2003 when the "grassberg copper and gold mine" collapsed in Indonesia, the copper was sold for 65 cents a pound [R1 180, 02] on the London Metals Exchange (LME). As a results the economy forced the copper price to rise to record highs of $3 per pound [R36.00] as from 2003 to 2006, with China being the biggest buyer. Back to South Africa, the manifestation of copper theft is currently attracting criminals, leading to vandalisation of railway stations. The perpetrators of this crime are those who steal copper to sell for monetary gain. They are called 'peddlers' and these individuals normally sell stolen copper to scrap metal dealers and in some instances, depending on the volume, they target metal manufacturers directly. The scrapyards are thus seen as being a 'kind of hinge of the metal supply chain', meaning that they link the stolen goods with an available market. It is estimated that copper theft costs South Africa R5 billion per year. In response an entity like PRASA is starting to push government to start charging copper thieves with sabotage.

The conducted one-on-one interview with Mr. Mjoli (PRASA Senior Cable Theft Railway Patroller –his responsibility is to ensure that railways are secured and that patrolling is done all the time) reveals that cable theft is a daily activity that they face at the railway stations/stations and it has become the headache for the company since the early 2000s; however, it is only the past ten years that they have given it special attention, from 2008 to date, but still it is escalating in nature. He further states that this crime is really affecting the company (PRASA) very negatively and the company has lost billions of rand trying to replace the infrastructure and to repair the railway stations that have been affected by this scourge.

The consulted literature highlights that not only do organisations suffer astronomical financial losses, but also the country suffers detrimentally from this scourge. In connection to this statement, Ellman (2012:3) points out that cable theft at railway stations increases disruption to passengers, escalating costs to the rail industry. Cable theft in railway stations has caused cancellation of many

national rail services and cost the network rail millions of rands to repair the damage. It has become clear that an on-going demand for this metal means the appeal of cable theft to opportunist criminals is likely to continue. Interestingly, the purpose of this study was to have an in-depth understanding of the combating of cable theft in Durban railway stations.

This study was conducted with an intent to understand which specific factors can inhibit the mitigation strategies of combating cable theft, and to find out what are the perceptions of cable theft investigators and cable theft patrollers regarding this crime. Given this background, this study focused on the combating of cable theft in Durban railway stations in the KZN Province. The significance of this study is that there exists little research done on combating cable theft in railways stations and it is envisaged that a study of this nature will be very beneficial in terms of understanding the nature and contributing factors to cable theft, and examining the existing challenges faced by the rail industry in combating cable theft.

1.2. PROBLEM STATEMENT

Kerlinger (1986) in Kumar (2014:64) highlights that "if one wants to solve a problem, one must generally know what the problem is". The City of Cape Town's transport and urban development mayoral committee member, Brett Herron, said: "It is not an exaggeration to warn that our public transport system could collapse if criminals are allowed to keep on sabotaging and undermining our services as is currently the case". He further stressed that latest statistics issued by PRASA show there is a 400% increase in vandalism and attacks regarding Metrorail's rolling stock over a year. For the most part, in the 2014/2015 financial year, 135 incidents were reported on PRASA board and this percentage has increased to 668 incidents in the 2016/2017 financial year (News 24, 2018:n.p).

In one notable incident, cable theft in Johannesburg Elandsfontein caused a Metrorail train collision, leaving one dead and over 50 commuters injured. The train collision that took place on Thursday the 1st of June 2017 just before 06:30 in Elandsfontein, Ekurhuleni is believed to have been caused by the signalling cable theft, stated by the then Metrorail acting spokesperson Tony Games (in News24, 2017: n.p). This acting spokesperson went on to mention, "Metrorail Gauteng has apologised for the inconvenience caused to its commuters. Many commuters have turned to be

victims of cable theft and this has also left many of the commuters dead. This habit has seen Metrorail and PRASA having to reschedule their budgets to repair the damages caused due to the cable theft".

The latest report (2017) on cable theft in Durban reveals that residents in the surrounding squatter camps and commuters were furious because trains from Transnet Freight Rail (TFR) were allegedly causing delays on the railway stations. The problems started due to cable theft and the theft of signals in railway stations (Business Live, 2017:n.p). In support of the above mentioned scourge of cable theft, Metrorail in KZN loses millions of rands through infrastructure vandalism (train windows hit by stones and trains burnt) by angry passengers because of train delays caused by stolen cables in railway stations. However, when cables are being stolen from railway stations, Metrorail has to replace that cable and it also causes disruptions to railway services and results in fewer train tickets being sold (Daily News, 2014:n.p). Furthermore, prior to replacing railway cables, Metrorail has to hire buses that will travel from one station to the next for passengers with weekly and monthly tickets. This media report insisted that cable theft remains one of the major challenges Metrorail is facing (Daily News, 2014:n.p). The former Transport Minister, Ben Martins, said, supporting the above argument, "The impact of the theft of a cable might be small, but the impact operationally on safety activities is massive, and more importantly, cable theft on our rail lines and system is a serious crime". However, "it deprives our commuters of safe travel on our trains to their various destinations, it also destroys infrastructure into which large sums of money are being invested to provide commuters with a safe and reliable public transport service" (Independent Online [IOL] News, 2013:n.p).

This problem arises from the scrap metal industry, where stolen cables are sold processed through the supply chain with relative ease. There are requirements under the Scrap Metal Dealers Act (Act No.10 of 2013) and the Second Hand Goods Act (Act No. 6 of 2009) to regulate the business of dealers in second-hand goods and pawnbrokers in order to combat trade in stolen goods but the theft of cables in the railway is worsening and we need to know more on how these acts operate. The threat to municipalities is real, substantiated by the crippling effect it has on municipalities such as the *eThekwini* Municipality where the perpetual service delivery interruptions are costing industries millions of rand in financial losses. The *eThekwini* Electricity Head went on to mention:

"the financial resources used to combat these thefts should have been used for social upliftment and the situation now plunders millions of rand from Durban municipalities, to the point where it can only be seen as acts of terrorism and cable thieves should be given harsher sentences" (Ndlovu & Magwaza, 2008 in Pretorius, 2012:27).

Consequently, the impact of cable theft hampers economic growth and business productivity, directly curbing job creation in the process. It is essential to have efficient passenger and freight train operations for the daily economic growth within South Africa. Continuous theft of cables on train lines means that some people are not able to go to work and do their daily tasks. The theft of rail material poses great risks to infrastructure and could lead to train derailments. Cable theft also has an indirect impact on the people making use of train services, thousands of commuters would arrive late for work and do not have means of transport when they come back from work, while freight deliveries would be delayed and businesses would be without stock to sell. This could escalate into striking, angry, frustrated people, complaints and retaliation, vandalism, driver threats, hi-jacking of transport, burning of property, overcrowding, possible claims and even loss of life (Venter, 2011 in Pretorius, 2012:28).

The cable theft on railway stations in Durban, is not a new phenomenon. On the 14th of February, media source News24 (2002:n.p) stated that "about two metres of signalling cables on a busy railway stations at KwaDukuza on the KZN North Coast was reported stolen, and this incident rendered the automated system on the track used daily by more than 4 000 commuters. This automated system was brought to a standstill and this is happening nationally and is the cause of major disruptions. As a result, copper theft costs South Africa millions annually. "Railway industry (Metrorail also known as PRASA and Spoornet) have started replacing all stolen copper cables with alternative and more-expensive materials such as high-fibre optics, but this has not helped to solve the crisis as thieves are not able to distinguish between the different cables". Furthermore, in KZN, Metrorail, Spoornet, Telkom, Eskom and Tongaat Hulett had combined losses estimated at R5.7 million through the theft of copper wires, cables and power lines which resulted in major power failure and the disruption of transport and communication services (News24, 2002:n.p).

The message which should be conveyed to the public is that copper cable theft holds a specific danger for the entire South African industry infrastructure as it causes a *domino* effect that vibrates on all levels. For example, if the transports system such as buses, the trains, or ships, were to stop being operational, all the supporting and dependent services would follow. The importance of conducting this research study is that it brings closer the combating structures that can be utilised on railway stations to eradicate cable theft, looking closer at the nature and contributing factors to cable theft in Durban railway stations.

1.3. STUDY OBJECTIVES

Terre Blanche, Durkheim and Painter (2006:37) emphasise that "objectives of the study refers to the process of specifying who or what the conclusion can be drawn from general to specific deductions". In connection to this statement, the researcher thinks that study objectives are ways a person plans to achieve given goals.

Thus, this study consisted of the following objectives:

- To assess the nature of cable theft in Durban railway stations
- To identify the contributing factors to cable theft in Durban railway stations.
- To assess the current strategies by the rail industry of Durban to combat cable theft.
- To examine the existing challenges faced by the Durban railway stations in combating cable theft.

The researcher is of the opinion that this study has descriptive and exploratory objectives; hence, it strives to represent and analyse the perceptions of cable theft investigators and cable theft railway patrollers in Durban railway stations.

1.4. RESEARCH QUESTIONS

Once the general research topic has been selected, the researcher continues to narrow the research topic and eventually translates the topic under research into research questions. The latter refers to a question that a study will attempt to answer. A research question should guide the entire study and positively contribute to a study focus (Donley, 2012).

To this end, the research questions for this study were designed as follows:

- What is the nature of cable theft in the Durban railway stations?
- What could be the contributory factors to the cable theft increase in the Durban railway stations?
- Are strategies employed by the Durban railway stations effective enough to combat cable theft?
- What type of challenges are faced by Durban railway stations in combating cable theft?

1.5. STUDY JUSTIFICATION

1.5.1 Institutional Interest

The possibility is that this study will produce awareness of the negative impacts that are brought about by the theft of cables in Durban railway stations. The researcher's aim is to reveal the findings of the research in academic publications and reports that may be used as authoritative by institutions such as PRASA, Transnet, scrap metal dealers, SAPS Railway, as well as the eThekwini Municipality in assisting to combat cable theft in Durban railway stations. In essence, this study might serve as an intervention tool to identify potential strategies that can be used to combat cable theft and look closer at strengthening the existing strategies already in use.

It is also believed that this study could provide the combating committee or PRASA security personnel a platform from which to initiate, develop and implement intervention measures to curb, if not eradicate, cable theft in railway stations as the findings have highlighted the challenges and contributing factors to cable theft in Durban railway stations. The discussion of this study revolves around the roles and competencies in combating cable theft, and the successes and challenges of countering cable theft. Based on the findings of this study, the researcher makes recommendations

for future improvements. Furthermore, Paterniti (2012:n.p) suggests that findings of this nature could be used to explore, or understand, diverse experiences, to conduct research for specific needs and values, to create educational materials, or design interventions, to assist organisations in providing services, and to inform policy.

1.5.2 Personal Interest

The topic was of a specific interest to the researcher due to the incidents that he observed when using trains as a means of transport. The researcher, therefore, viewed the study as a tool towards establishing combating measures in relation to cable theft in Durban railway stations. In a recent traumatic incident in Durban, train drivers were threatened with being burnt alive after a power surge delayed commuter trains in the city at night on the 31st of January 2018. It was reported that two coaches at the Berea and Durban stations were set on fire by angry commuters due to train delays. It is estimated that the damages caused at these stations will cost PRASA approximately R10 million. Moreover, it is believed that all these damages are caused by overhead cables that were snapped at these stations causing several railway services to literally fail (Times Live, 2018: n.p). The researcher was thus motivated to conduct the study by an observable increase in vandalism of rail infrastructure as commuters continue damaging the railway stations due to cables being stolen leaving the commuters without having means of transport from their designated areas. This continuing scourge affects economic development and stability in rail industries and for other stakeholders.

Cable theft at railway stations negatively affects the PRASA business mandate, their working strategy and organisational structure or operating model. The results of this study will further contribute to a higher competence level during the formulation of strategies or to strengthen the existing strategies to police cable theft in Durban railway stations and other provinces that may face a similar problem. If the findings and recommendations of this study are taken seriously and implemented, then PRASA, Transnet and SAPS Railway in Durban will benefit, because their policy makers will be equipped with a better understanding of the challenges they encounter in policing and investigating cable theft in Durban railway stations. They will, therefore, be assisted in the development of new and efficient strategies and techniques to effectively respond to and curb this crime. However, this study suggests that the Scrap Metal Dealers Act [Act No. 10 of

2013] and the Second Hand Goods Act [Act No.6 of 2009] need to be strengthened in such a way that it will not be easy to channel the second hand goods and, most importantly, do the best to eradicate cable theft in South Africa.

1.5.3 Public Members (commuters)

This study will add value to society as it will establish new ideas with regards to better and more effective strategies to respond to cable theft in Durban. This study will in turn promote more effective policing and investigative strategies, and highlight the contributing factors to cable thefts hoping that commuters will be able to access trains at all times, that they will arrive on time at work and get home at the right time. This will benefit the train users of Durban and visitors as they will travel on safer and secure railway stations where this crime normally operates. If the findings are selectively published in community publications such as local newspapers and on the PRASA website page, the information will capacitate the public with best practices that could help them to respond to this crime appropriately and thus avoid victimisation. It is therefore predicted that railway stations will become free crime zone in relation to cable theft in Durban railway stations.

Given the above statement, the researcher believes that the findings of this study will be relevant to, and necessary for, the unit of analysis (population/target group). This study seeks to provide a positive and significant contribution to the cause of combating cable theft in Durban railway stations, protecting commuters who use trains daily as means of transport, and the revenue of the companies. This is proposed by offering theoretical and empirical foundations in the literature, testing by empirical research, and identifying gaps in existing analyses of theories, relating to copper cable theft prevention in the application of theory-building.

1.5.4 Scholarly Community

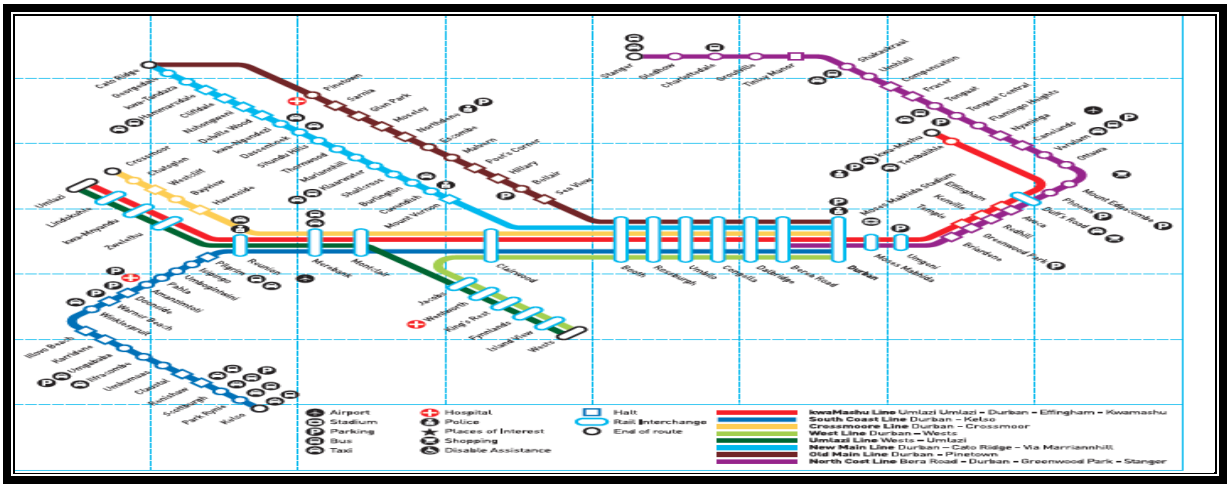
By publishing the results of this study, both locally as well as for people in other settings across the country, this will provide a point of reference for future studies that may seek to close the gap in research data pertaining to the field of cable theft in railway stations. Once the results of this study have been made available, students in the Social Sciences discipline will be sensitised to the impact of cable theft in Durban railway stations. The challenges that the rail industry encounters and the different strategies that PRASA uses to respond to this crime will be identified, which in

turn will contribute to more effective preventative measures that future strategic plans and well as research studies may build on.

1.6. DESCRIPTION OF STUDY LOCATION

The research focus was on PRASA, KZN at Suite 215, Main Concourse in the city of Durban, South Africa, located between Umgeni Road and Masabalala Yengwa Avenue just to the north of the central business district. PRASA is in the central railway station and has the terminus of Shosholoza Meyl long-distance services from Johannesburg and Cape Town to Durban. This company consists of 8 lines shown in the graphic diagram below, but the study was conducted on the Old Main line (Durban station to Pinetown) where the interviewed participants normally operate. Shown below is the Durban rail map indicating local passenger rail routes of KZN (Durban). The most important reason for choosing PRASA as the study location is that the researcher used to use trains as a daily means of transport from uMlazi Township to Durban city when he was still a resident of uMlazi Township (Section H) and reading the reported cases of cable theft from the media reports.

Figure 1: Durban rail map



Source: Metrorail (2010:n.p)

1.7. OPERATIONALISATION OF KEY TERMS

1.7.1 Cable Theft

This concept can be described as the metal theft, the theft of physical electrical cable for its scrap metal value (Wikipedia search, 2018:n.p). For this study, cable theft relates to the stealing of various type of cables in railway stations of Durban. Among these cables include, copper cables used in railway lines, cables that execute the operation of robot signallling and those that are used to track the movement of the trains from different stations in Durban.

1.7.2 Combating

According to Vocabulary.Com (2018:n.p), to combat refers to the action of fighting against or prevention. Google Search (2018:n.p) supports the above statement saying, to combat is to take action to reduce or prevent (something bad or undesirable). This study was determined on fighting against the stealing of cables that are in railway stations of Durban, mostly assisting on the movement of trains in railway lines. Therefore, possible contributing factors and challenges arise in combating cable theft were addressed and carefully noted in relation to given recommendations in this research study.

1.7.3 Durban

Durban is the largest city in the South African province of KwaZulu-Natal. It is also seen as one of the major centres of tourism because of the city's warm subtropical climate and extensive beaches. Durban forms part of the eThekwini Metropolitan Municipality, which includes neighbouring towns and has a population of 3.44 million (Wikipedia Search, 2018) (in Shandu, 2017:67). This study was conducted in the vicinity of Durban. PRASA as the target agency operates in the area of Durban, all the stations that PRASA operates in also originates in this city

1.7.4 Railway

Google Search (2018:n.p), defines railway as a track made of steel rails along which trains run. In relation to this study, railway is where the movement of trains take place. It became precise that railways are also targeted as thieves steal steel clips found on railways. Therefore, the theft

of cables operates in railways too and that cause train derailments and stoppage of trains from operating.

1.8. RESEARCH DESIGN AND METHODOLOGY

The research design and methodology are "dependent on the purpose of the research study, which is to answer the research questions and hypotheses the study wants to investigate" (Maweni, 2016:54).

1.8.1 Research Design

The research design refers to the overall strategy that you choose to integrate the different components of the study in a coherent and logical way, thereby ensuring you will effectively address the research problem: it constitutes the blueprint for the collection, measurement, and analysis of data. The term 'research design' refers to " a blueprint plan for the research; it specifies what the key components look like, how they fit together, and how they will produce appropriate information to answer the research question" (Denscombe, 2010:100). In support of the above view point, Flick (2006:135) emphasise that "research design is a plan for collecting and analysing evidence that will make it possible for the investigator to answer whatever questions he or she posed". However, research designs assisted the researcher in collecting the data for this study. They played the major role in finding the relevant participants for the study. In this study the researcher used descriptive and exploratory designs which are defined in separate headings below.

1.8.1.1 Explorative Research Design

Exploratory research design come into play when a study is conducted with the aim either to explore an area where little is known or to investigate the possibilities of conducting a particular research study (Kumar, 2011:1). According to Terre Blanche *et al.* (2006:44), exploratory research design "concentrates on observing the reliability of research design and it is used to make preliminary investigations into relative unknown areas of research". According to the researcher's perspective, this design is applicable in a vague research topic and it is used to explore and discover more crucial information about that particular topic. The researcher used the exploratory research

design to get more in-depth understanding on the combating of cable theft in Durban railway stations. Very little, if any, scientific academic research was found during this research, especially published research concerning the impact this economic-related crime has on organisations and on the country as a whole. However, on a non-academic level this research found many people and organisations with good, yet unpublished ideas on how to fight this crime.

1.8.1.2. Descriptive Research Design

This research design, according to Kumar (2011:11), describes the phenomenon in a systematic manner. In the process of description the design strives to provide the information about the situation or problem. Additionally, Babbie (2010:93) points out that descriptive research design "is the design that show situations and events where the researchers observe and then describe what was observed because scientific observation is careful as well as deliberate".

The researcher used a descriptive research design to attempt to describe and obtain more information on the challenges of investigators in combating the theft of copper cable in railway stations and the consequences for the problem. Overall, the designs used in the research study by the researcher were to enable more in-depth understanding on the phenomenon, and also to describe more about the nature and existing challenges that cable theft investigators and cable theft railway patrollers face as result of the behaviour of the cable thieves and strategies that cable theft investigators and cable theft railway patrollers use to deal with the problem. Therefore, a combination of these two research designs provided deep explorative and descriptive information on combating cable theft in Durban railway stations.

1.8.2 Research Methodology

For the purposes of this study, for the researcher to collect data in a comprehensive manner he adopted a qualitative methodological research approach. This research approach "is primarily exploratory research and it is used to gain an understanding of underlying reasons, opinions, and motivations". However, it provides insights into the problem or helps to develop ideas or hypotheses for potential quantitative research (Wyse, 2011:n.p). The researcher attempted to identify and explore the actual perceptions, attitudes, and experiences of cable theft investigators

and cable theft railway patrollers regarding the combating of cable theft. This was done through the adoption of FGDs, KII, and observation schedules.

A qualitative method may entail classification, for example, data represented through words, pictures or icons analysed, using thematic exploration, whereas a quantitative method entails the measurement of data represented through numbers and is analysed using statistics (O'Leary, s.a.in Mofokeng, 2010:27). In addition, "qualitative research concepts are viewed as sensitizing ideas or terms that enhance our understanding, qualitative researchers try to get an in-depth understanding of human behaviour and the factors that control or influence behaviour." (Hagan, (s.a); Bezuidenhout, 2011 in Maluleke, 2014:70).

1.8.2.1 Target Population

According to Bless, Higson-Smith and Sithole (2013) and Ritchie, Lewis, Nicholls and Ormston (2014) in Shandu (2017:69), a "population, sometimes referred to as a target or/ study population, is the set of elements with the most correct information that the research study focuses upon". However, Shandu (2017:69) advocates that "in the case of qualitative research, the results obtained from a sample of the population should be exhaustive to all researched aspects found in the population".

According to Babbie (2010:199), population is the group or collection we are interested in generalising about and the theoretical specified aggregation of study elements. The population in this research consisted of all the cable theft investigators and cable theft railway patrollers at PRASA who are involved in copper theft investigation in Durban railways stations. The researcher found it difficult to access all the cable theft investigators of PRASA because throughout the process they became busy and they had to work night duties and the researcher could not schedule constant time with them because of their demanding work. Therefore, it was not possible to conduct interviews with all of them. The practical implications forced the researcher to select an accessible sub-population, which is called a target population.

1.8.2.2 Sample Size and Procedure

Sampling forms a vital and an integral part of research methodology. According to Rees (1983) in Mtshede (2015:48) "sampling in research is a process of carefully selecting the individuals who can represent the entire population and when selecting these participants, a technical accounting device is used in order to collect the relevant information required by the research study". By using this principle, it is possible to reach a conclusion by examining only a portion of the entire population.

In support of the abovementioned viewpoint made on the sampling process, the work of Peterson (1982) in Mtshede (2015:48) proclaims that, sampling in research is a routine that is followed to select the part of the research population that is likely to represent the total population investigated. This study, opted to utilise six (6) participants who formed a focus group discussions (FGDs). In selecting these participants, the sampling routine used was a non-probability sampling. "Non-probability sampling involves choosing samples not so much to be representative of the target population, but on the characteristics of the target population" (Meadows, 2003 in Mtshede, 2015: 48). Employing this type of sampling means that everyone in the targeted population have equal chances to be selected. This study used the non-probability 'purposive and snowballing' sampling methods to select its sample.

The participants all resided in KZN. Cable theft investigators and cable theft railway patrollers, who are also cable theft mitigation specialists, are limited in number. They were selected through purposive sampling. This kind of sampling is considered by Babbie (2011:179) as the most important kind of non-probability sampling in which the units to be observed are selected on the basis of the researcher's judgements about which one will be the most useful or representative. This is also called judgmental sampling. Purposive sampling is when the researcher selects a sample that can be judged to be representative of the total population. This judgement is made on the basis of available information or the researcher's knowledge of the population. This knowledge is used to handpick the elements for the sample quoted by Van Rensburg (2010:162). The researcher selected the sample based on the purpose of the research.

This term ‘purposive sampling’ as described by Maree (2010:79) simply means that participants are selected because of some defining characteristic that make them the holders of the data needed for the study. Purposive sampling decisions are not only restricted to the selection of participants but also involve the settings, incidents, events and activities to be included for data collection. The researcher used target sampling in order to collect information specifically relating to cable theft in Durban railway stations and the factors that could contribute or mitigate such occurrences. The researcher used purposive sampling as this technique would enable him to identify the participants who had first-hand knowledge about the topic under study.

In order to trace additional participants as sources, or as a second level validation for the information received, the researcher used snowball sampling. Moreover, snowballing is a method of expanding the sample by asking one informant or participant to recommend others as well. Snowball sampling, also known as ‘chain referral sampling’, is a method whereby participants with whom contact has already been made are used to penetrate their social networks to refer the researcher to other participants who could potentially take part in or contribute to the study. Snowball sampling is often used to find “hidden populations”, that is groups not easily accessible to researchers through other sampling strategies (Maree, 2010:80). In this instance the researcher also used professional bodies such as PRASA cable theft railway patrollers for this research. The reason this technique was employed by the researcher is because the study needed additional members to validate the objectives this study intended to explore.

Customary to qualitative research, no sample size was determined at the outset of the study but the principle of “data saturation” ultimately determined the sample size, but the researcher did not reach data saturation since only eight (8) participants were interviewed, that is two (2) Key informants (cable theft investigators) and six (6) cable theft railway patrollers. The reason the study interviewed eight participants is that they were limited security officials and others were assigned night shift duties during the data collection period. According to Terre Blanche, Durkheim and Painter (2014:372) data saturation refers to the condition of an interpretive account, where the account is richly fed by material that has been collected, at least to the point where the researcher can intuitively say he has thoroughly explored the data and acquired a satisfactory sense of what is going on. A sample of Two (2) KIIs (cable theft investigators) was selected. They were

identified as specialists by their manager, Mr. Chonco, and were not only responsible for, but were also the most knowledgeable about the phenomenon under investigation.

The researcher extensively contacted referrals within the same environments of the participants and six (6) cable theft railway patrollers were interviewed as second participants of the research study as they were also knowledgeable in the field of cable theft in railway stations. The researcher was also asked to attend a live patrolling at Durban railway stations (Berea and Rossburgh station) as this served as observations of the phenomenon under study on the 10th and 14th of February 2018. These representatives presented themselves as experts and critical role-players in combating cable theft in Durban railway stations according to their demarcation. The transcribed interview schedule was tested on all of them to determine the level of saturation achieved.

1.8.2.3. Methods of Data Collection

The interviews conducted during the study were FGDs, in-depth interviews with KIIs and cable theft incident railway observations. The said FGDs and KIIs were conducted in PRASA, KZN at Suite 215, Main Concourse, Durban Station, Masabalala Yengwa Avenue (Protection Services), with participants drawn from one generic area (around the city centre).

- An inner city area (Cable theft railway patrollers - FGDs) Together with (KIIs - Cable theft investigators).

1.8.2.3.1 Focus Group Discussions (FGDs)

A FGD is a small group discussion guided by a researcher who intends to research a certain topic of study (Creswell, 2009 in Mtshede, 2015:47). This is an instrumental tool used in gathering data on opinions individuals on particular subjects and harness the future action. A focus group forms part of qualitative research whereby people are questioned about their attitude and perspective in relation to certain occurrences in a social setting. Questions were posed in a manner that allowed participants to engage in an environment characterise with ease.

The FGDs were used in this study so as to gather information from the interviewed participants who were rich in knowledge about the study under investigation. Morgan (1997:115) says focus groups can be defined as bringing together a small group of people to participate in a carefully

planned discussion on a defined topic. The employment of FGDs was informed by the un-availability of participants for the stipulated time of engagement due to their busy work time. Moreover, the participants in FGDs were recommended by the Manager of PRASA: Protection services. The reason for the PRASA manager to recommend them emanates from the basis that these people are experienced and knowledgeable. They were able to provide effective and authoritative responses.

The FGDs rely on interaction and it is through this interaction that themes and interpreted meanings emerge. However, FGDs offer a general definition, noting that focus groups rely on "interaction within the group, based on topics that are supplied by the researcher who typically takes the role of a moderator" (Morgan, 1997:2). It is through FGDs that marginalised groups can get to have a voice on issues that concern and affect them; therefore, this study gave cable theft railway patrollers a chance to voice their views on the combating of cable theft in Durban railway stations. The FGD consisted of six (6) - cable theft railway patrollers.

1.8.2.3.2 Key Informant Interviews (KIIs)

Making use of KIIs means asking the opinions of a small number of people, known to be involved with the services needed, or programme implemented. The selection of informants is a very important part of this method, because only a few respondents are used, and their responses to the questions put to them have an important effect on the evaluation of the data. The KIIs are selected because of their expertise in the relevant area of service, or because they wield power in the environment where the decisions have to be made (De Vos, Strydom, Fouche & Delport, 2011:467).

In this study, the researcher sat in 30-45 minute interviews with cable theft investigators with experience of more than ten years to gather their perceptions on the study topic. Rossi *et al.* (2004) in De Vos *et al* (2011:467) agree that perhaps the easiest, though by no means most reliable, approach to estimating the extent of a social problem is to ask key informants – persons whose positions or experience should provide them with some knowledge of the magnitude and distribution of the problem. KIIs are especially useful at the beginning of the process to basically build a valuable layout that will enable the other participants to contribute to the research study.

The highly ranked individuals with a lot of experience have important information to convey that the researcher may not get through other means. Furthermore, the researcher needed to gather feedback that was important to build a valuable layout of the process and clearly show intention to listen and consider key perspectives since there is value in having rich qualitative data (National Estuarine Research Reserve Association [NERRA], s.a.: n.p). KIIs were used since the researcher wanted to collect information from those individuals who have first-hand knowledge about the topic studied. However, they provided relevant information pertaining to the research study.

1.8.2.3.3 Documentary Study

Marshall and Rossman (2016:164-166) assert that "various documents are often perused in a qualitative study". As this was a qualitative research study, the researcher therefore relied on a perusal of documents that were relevant to the study topic. Flick (2011:124) proclaimed that documents are "standardised artefacts, as far as they typically occur in particular formats such as notes, case reports, contracts, drafts, death certificates, remarks, diaries, statistics, annual reports, certificates, judgements and letters or expert opinions".

The researcher engaged with documented studies, which entail a clear synopsis of existing publications surrounding the topic of combating cable theft in Durban railway stations and extending to the entire Southern Africa, and other corners of the world. A rigorous review of the existing literature assisted the researcher to locate the problem researched herein within the theoretical and conceptual setting. In the quest for relevant information, the researcher engaged with a variety of sources which among other things include journal articles, policy documents, academic books, legislation, national instructions, and relevant information obtained from internet sources. Data collected through interacting with the existing literature was merged with the data collected from the field to synthesise the information presented in this research study.

For the orientation of the study subject, the researcher read whatever had been published that appeared relevant to the study topic. In light of this, herewith the selection of primary and secondary sources consulted by the researcher:

- The Constitution of the Republic of South Africa Act (Act No. 108 of 1996).
- Scrap Metal Dealers Act (Act No. 10 of 2013).
- Second Hand goods Act (Act No. 6 of 2009).
- White Paper on Safety and Security 1998.
- National Crime Prevention Strategy 1996.
- Criminal Matters Amendment Act [Act No. 18 of 2015].
- Relevant publications (i.e. PRASA cable theft statistics).

Also consulted were:

- Textbooks;
- Journals articles on cable theft in railway stations;
- Internet sources on cable theft in railway stations;
- Dissertations and theses on copper cable theft; and
- Other statutes.

1.8.2.3.4 Observation Schedule

The collection of data from Durban railway stations on cable theft incidents observation schedules was the last source utilised to gather data on the topic. A total of four (4) incidents were observed on Durban railway stations by the researcher in the period February 2018 in the Umbilo, Berea, Rossburgh and Umngeni railway stations. The researcher attended two (2) incidents that were still being repaired by the PRASA Technicians and one (1) incident that took place around 02:00- 03:00 at Berea station and that one was still unattended by the technician and the researcher did non-participant observation on how they attend cable theft activities at the railway stations.

Kumar (2014:173-174) proposes that, in qualitative research, we usually find two types of observation, namely: participant observation – where the researcher is involved in the activities of the participants being observed, and non-participant observation - where the researcher "do(es) not get involved in the activities of the group but remain passive observer, watching and listening to its conclusions and drawing conclusions from this". For the purpose of this study, the researcher's

major observation was the railways incidents of copper and overheads cable theft. The purpose in attending the railway observation in question was to furnish the reader with some basic knowledge of how cable theft investigators together with cable theft railway patrollers respond to cable theft in their demarcated areas.

The participants were requested to participate in the study via invitation letters and an email that was sent to their manager. Furthermore, the researcher wrote down word-for-word what was said by the participants in their natural settings for the FGDs, and the KIIs also preferred the researcher to takes notes together with audio recordings. Lastly, the researcher noted the observations made during cable theft incidents happening at Durban railway stations. The transcripts of individual interviews, and the notes stemming from the observation of cable theft incidents at railway stations were analysed carefully by the researcher, and the limitations thereof considered. Gender, age, educational background, and socio-economic differentiation were not taken into consideration. All eight participants were Zulu-speaking.

1.8.2.4. Methods of Data Analysis

Data analysis as defined by Terre Blanche, Durrheim and Painter (2014) involves reading through repeatedly and engaging in activities of breaking data down and building it up again in novel ways (elaborating and interpreting). Supporting the above definition, Maree (2010:399) defines qualitative data analysis as "a process of inductive reasoning, thinking, and theorising, which certainly is far removed from structured, mechanical and technical procedures to make inferences from empirical data of social life". Therefore, the collected data would be analysed, so that structured, reliable, and valid conclusions are reached. In order to make sense of the data collected through unstructured interviews, the researcher analysed the data using the thematic analysis method. To highlight, thematic analysis "is often the go-to method in most qualitative research and it provides an easily interpretable and concise description of the emergent themes and patterns within a dataset" (Wigdorowitz**,** 2016:n.p).

Thematic analysis is described as a form of recognising patterns with data so that identified themes become categories for analysis (Fereday & Muir-Cochrane, 2006 in Mtshede, 2015:51). A theme is a pattern found in information that at the minimum describes and organises possible observations

or at the maximum interprets aspects of the phenomenon (Boyatzis, 1998 in Mtshede 2015:51). The purpose of thematic analysis is to identify patterns of meaning across a dataset that provides an answer to the research question being addressed and the task of the researcher is to identify a limited number of themes which reflect their textual data. Patterns are identified through a vigorous process of data familiarisation, data coding, and theme development and revision. The thematic analysis is primarily concerned with characterising and summarising perceptions and lived experiences and applying the results to a particular research problem, rather than building and assessing theoretical models. It goes through processes of de-contextualisation and re-contextualisation of higher themes.

This study used thematic analysis to analyse the themes that emerged during KIIs and FGDs. This study is inspired by the steps formulated by Braun and Clarke (2006) which are typically employed when one is generating, identifying and grouping themes. Those steps are discussed below:

- **Familiarising yourself with your data**

In the process, eight (8) participants were selected; two (2) served as the KIIs and six (6) served as the FGD members. FGDs and KIIs meetings were held, the responses were transcribed by the researcher. The data was collected from all the participants who were selected. Thereafter, during the process the initial ideas were noted down. Repeated ideas and shared information that emerged from the participants were examined. Similar and contradictory ideas and patterns were marked and analysed according to their relevance to the objectives of the study.

- **Generating initial codes**

During the coding phase, the whole data set was given equal attention so that full consideration could be given to repeated patterns with the data collected.

- **Searching for themes**

Searching for themes is the third phase. These themes explained larger sections of the data collected by combining different codes that may have been very similar or may have been

considered the same aspect within the data. All initial codes relevant to the research question were incorporated into a theme.

- **Reviewing themes**

In this phase, the researcher developed thematic maps to aid the generation of themes, helping the researcher to visualise and consider the links and relationships between themes that emerged. At this point any themes that did not have enough data to support them or were too diverse were discarded. This refinement of the themes took place on two levels, primarily with the coded data ensuring they formed a coherent pattern, and, secondly, once a coherent pattern was formed the themes were considered in relation to the data set as a whole. This stage lasted until a clear idea of the various themes and how they fitted together emerged.

- **Defining and naming themes**

The phase of defining and naming the themes is the second last phase. Each theme needs to be clearly defined and accompanied by a detailed analysis. It was highly important to develop short but punchy names that conveyed an immediate indication of the essence of the theme. Themes are viewed as essential in determining the understandings of all the participants.

- **Producing the report**

The final stage (the report production) involved choosing examples of transcripts to illustrate elements of the themes, considering existing literature and drawing conclusions (Implications for the future).

1.8.2.4.1 Elaboration

For the purposes of this study, the observation schedule was based on the numbers of cable theft incidents reported to PRASA Joint Operations Communications (JOC); however, the researcher managed to attend two (2) railway station incidents that occurred in Berea and Rossburgh stations. During the analysis, the responses of PRASA cable theft investigators and cable theft railway patrollers were put under severe scrutiny. The researcher identified the most relevant questions to elicit information during the railway station observation incidents:

- When the crime was reported (times of cutting the cable, including month).
- Where did it happen (location of attack, for example, Rossburgh or Berea railway stations)?
- Description of the scene of the crime.
- How did the crime occur (all possible information, including method of operation)?

All these questions enabled the researcher to group certain types of information retrieved from the observed railway station incidents. The questions were designed to take into account the methods of operation, the timeframes when incidents took place and the location.

1.8.3 Methods to Ensure Trustworthiness

Validity and rigour were achieved by looking at the research trustworthiness. The researcher focused on four components of trustworthiness which are credibility, transferability, dependability and confirmability.

1.8.3.1 Credibility

According to Thomas and Magilvy (2011:152) "a qualitative study is considered credible when it presents an accurate description or interpretation of human experience that people who also share the same experience would immediately recognise". To ensure credibility, the researcher did member checking which comprised of returning to the participants from whom data was collected to ensure that interpretations made were recognised by the participants as accurate representations of their experiences. After the researcher had transcribed data, copies were made and went back to the participants for them to confirm that the researcher had accurately transcribed what they said in the interviews and that researcher had not distorted anything they said. The researcher also reflected on assumptions he made and biases through the process of reflexivity as evidenced in this chapter.

1.8.3.2 Transferability

Transferability is the ability to transfer research findings or methods from one group to another (Thomas & Magilvy, 2011:152). Transferability in this study was achieved by the provision of in-depth descriptions of the sample studied and the demographic characteristics of the participants. The geographical boundaries of this study were described in full, which made it possible for the

research findings or methods used to be transferred to another setting facing a similar problem as the one under research. To achieve this goal, the researcher utilised a purposive sampling method in order to maximise the range of specific information that could be obtained from the participants about the problem under investigation (Babbie & Mouton, 2011 in Shandu, 2017:84). The expert accounts that the participants provided were based on the same foundations as those that any other expert within the cable theft investigation would have provided. In this context, the researcher is satisfied that thick and relevant explorative and descriptive data was collected for this study

1.8.3.3. Dependability

Du Plooy-Cilliers, Davis and Bezuidenhout. (2011:259) assert that dependability refers to "the quality of the process of integration that takes place between the data collection method, data analysis and the theory generated from the data". Babbie and Mouton (2011:278) hold the view that dependability in an inquiry means that "it must provide its audience with evidence that, if this study was to be repeated with the same or similar participants in the same or a similar context, the findings would be the same".

The researcher attained dependability for this study by conforming to the following procedures:

- Conducted semi-structured interviews with the participants posed mostly open-ended questions that could be answered openly and frankly;
- Asked the participants the same interview questions to address the study objectives and research questions under investigation;
- Ensured that the confidentiality of the participants was guaranteed and that their interviews were conducted in privacy;
- Recorded the participants' answers on a voice recorder and in writing and transcribed these responses verbatim. This would ensure that, should future researchers conduct similar studies using a similar interview schedule, the same findings or results would be obtained in different settings with the same people at different times, or with a separate groups of similar people at the same time;

- Utilised the services of the proposed UKZN supervisor to review and assess this study's results on a regular basis. The supervisor provided guidance and identified various shortfalls that the researcher had to attend to;
- Used relevant sources from the literature that enriched this study; and
- Adhered to ethical considerations by citing and referencing other authors' work in the prescribed manner.

1.8.3.4. Confirmability

Du Plooy-Cilliers *et al.* (2014:259) and Lichtman (2014:387) assert that confirmability refers to "how well the data collected support the findings and interpretation of the researcher". This implies that it indicates how well the findings flow from the data. Therefore, when other scholars look at the data, they must come to the same conclusions as the researcher. This will be confirmed and corroborate what the researcher did. The researcher referred the findings back to the participants and discussed their interview transcripts and the analysis of the data in the final research draft. This process rejected any information that was not accurate and maintained the objectivity of this study. This study was also subjected to an internal and external review process to have it assessed for relevance and compliance with sound research principles. This process ensured an objective assessment and addressed the confirmability standards of the study.

1.9. ETHICAL CONSIDERATIONS

When conducting studies using human or animals as subjects, ethical principles must be adhered to, and research may not be conducted if those ethical processes are not followed. Conducting a research without full approval by the ethics committee of a concerned institution is unacceptable and such a study cannot be published in "reputable, peer reviewed science journals" (Richard, 2014:231). Ethics is defined as "a set of widely accepted moral principles that offer rules for, and behavioural expectations of, the most correct conduct towards experimental subjects and respondents, employers, sponsors, other researchers, assistants and students" (De Vos *et al.*, 2011:420).

Bless, Higson-smith and Kagee (2006:140) express that the word 'ethics' is originally taken from the Greek word 'ethos' which refers to person's personality. Ethical issues are concerned with conformity to the set of codes or principles by a researcher. Adherence to research ethics helps scholars to understand their responsibilities as ethical investigators and prevents research abuses. "Research ethics places emphasis on the humane and sensitive treatment of research participants who may be placed at varying degrees of risk by research procedure" (Bless *et al.,* 2006:140). It is therefore significant that, before a researcher contacts any research participant, he/she ensures that the research proposal has gone through research ethical evaluation. Ethical standards are mediated to ensure a balance between "supporting freedom of scientific inquiry" and "protecting the welfare of the research participants". Researchers have the right to look for truth and knowledge, but that should not be done at the expense of the rights of the members of a society (Bless *et al.,* 2006:140). The present study was conducted under the auspices of the UKZN. Ethical clearance was applied for in September 2017 from the Humanities and Social Sciences Research Ethics Committee (HSSREC). Ethical clearance was granted with full approval on 05 December 2017. To ensure that informed consent, voluntary participation and the confidentiality status of each participant was guaranteed, an informed consent letter was given to each participant to sign. The letter substantiated what was expected from each participant, what the participant should expect, and what the envisaged outcomes of the research might be.

The participants were assured of the confidentiality of their participation and that any information provided by them could only be used for research purposes. A brief explanation of the study was discussed with each participant. They were made aware that the interview would be recorded on an audio tape recorder. The consent form and the declaration letter informed the participants that their involvement was voluntary and that they could withdraw at any time during the study, that they would not be reprimanded for doing so, and that they could not expect any financial gain from participating in the study. In addition, the researcher took the stance that any information received from the informants would be reported accurately and truthfully. The researcher took full responsibility for the wellbeing of the participants during the interviews and assured each participant of adherence to the agreement prior to the interview. The researcher also abided by the research proposal submitted to UKZN Ethics Committee according to which the study had received full ethical approval. Alterations were made regarding the research topic hence the

researcher found out that PRASA operates in more than one station in Durban and No adjustments were made regarding the questions, interview schedule, informed consent form, research approach or method after full approval was received. As far as the location of the study was concerned, however, only PRASA protection services approved to be included in the study, although the researcher had aimed at involving Transnet freight rail as well.

1.9.1 Informed Consent

People participating in a research have the right to know what the research is about; they also have the right to know if they are going to be implicated in any way by participating in the research (Bless *et al.*, 2006:142). Research participants need to be aware of the risks and benefits of participating in any research project. Participants also have to be told that they have the right to decline to participate if they wish to do so (Bless, 2006 in Mphatheni, 2016:68). Each participant was presented with an informed consent letter with full details of what was expected of him or her. It was also mentioned that they had the right not to participate in the study if they were not comfortable in any way. The consent letter also mentioned that participants would not be reprimanded if they wanted to withdraw from the study in the middle of the interview. The participants in this study were made aware of the research tools that were going to be used before they participated, i.e., that open-ended questions would be asked and an audio tape recorder would be used but, as the researcher mentioned above, they refused to be audio recorded. Therefore, According to Grobler and Schenck (2009:56) "open ended questions gives the participant the freedom to choose to what extent the question will be answered. Open-ended questions allow participants to share his views and thoughts and to disclose his experiences, open-ended questions facilitate communication". In the study, the researcher used open-ended questions to obtain useful information from the participants; they managed to give more of their experiences and challenges. In addition to these questions, the researcher also used "what" and "how" questions to get more valuable information when the participants responded to the questions.

The participants were assured of their confidentiality and anonymity during the data collection, the data presentation and discussion processes, and in the report respectively. This was done by informing the participants that information that could be traced back to an individual participant

would not be used and that pseudonyms instead of original names would be used. The participants were repeatedly assured that their participation was voluntary.

1.9.2. Procedures followed to gain access to the study site and participants

Application for conducting the study was submitted to PRASA Protection Services to their manager. He welcomed the proposal to conduct the study at their premises in PRASA Durban station and he granted permission without additional requirements. Participants consented to be interviewed after the purpose of study had been explained to them. They signed the consent form and agreed to be interviewed at a time that was convenient to them.

1.10. SCOPE OF THE STUDY

The research topic is based on developing an in-depth understanding on the combating of cable theft in Durban railway stations. However, this research study was conducted with an intent to understand which specific factors can inhibit the mitigation strategies of combating cable theft, and to find out what are the perceptions of cable theft investigators and cable theft railway patrollers regarding this crime. Moreover, this study was conducted at PRASA: Protection Services boardroom. The data was collected through KIIs, FGDs and observations that took place in Durban railway stations to highlight the nature of cable theft. The interviewed participants were purposively selected by the manager of PRASA and others were selected as additional members as the manager believed that they met the criteria since they had been working for the company for a long time. The manager believed that they would provide the researcher with knowledgeable responses as they also had first-hand knowledge of how cables theft has been negatively affecting the Durban railway stations. Through research interviews, the participants indicated the factors that inhibit the mitigation strategies of combating cable theft in Durban railway stations.

1.11. SUMMARY

This introductory chapter presents the primary subject matter under consideration. Therefore, to place this study within a specific frame of reference, the problem statement, the study objectives, the research questions, the study justification, and the methods to be adopted were stressed. This

chapter made attempts at understanding the nature and contributing factors to cable theft in Durban railway stations, not side lining the strategies employed by the victimised companies and the challenges they encounter due to cable theft. This study also emphasised the weakness imposed by the CJS in combating cable theft in South Africa. In addition, beside exploring and discussing various issues, forces and factors that suggested the necessity for a study of this nature were highlighted. Lastly, it also discussed the geographical demarcation and the scope of the study.

In view of the above, the next chapter is dedicated to exploring the scope of the study and reviewing literature pertaining to cable theft and the criminal justice system with a view to situating their relevance to this study. The latter part of the chapter also captures relevant legislation that could be used to validate the essence of the study.

CHAPTER TWO

CABLE THEFT GLOBAL AND SOUTH AFRICAN CONTEXT: NATURE, CONTRIBUTORY FACTORS, COMBATING STRATEGIES AND CHALLENGES

2.1. INTRODUCTION

The researcher thinks that it is fundamentally pertinent to any research undertaken to conduct a literature review; this is done to find out what other seminal researchers have already learned and written (i.e. scientifically published) concerning the subject to be addressed. It should be noted that a literature review serves as an integral part of any research project. Neuman (2011:124) provides that this process "builds on the idea that knowledge accumulates and that one can learn from and build on what others have done, by closely looking at the research works of other scholars who conducted relevant current research studies on the phenomenon under investigation". In collaboration with this statement, the researcher discussed the findings of other studies on the phenomenon of cable theft, with emphasis directed to elicit an understanding of the nature of this crime, contributory factors, challenges of combating this crime and current strategies in combating this scourge and the extent of this crime. Consequently, the methods and techniques of combating cable theft in railway stations are discussed with reference to the findings of both international and local studies. The literature review in this study was used as the premise for guiding the formulation of the study objectives and research questions (i.e. mapped together) and the said literature review was adopted to guide the analyses of the gathered information in this study. In the data analysis section, information presented in the literature review section was used as a referral point to determine correlations among the findings of this study.

This chapter commences by discussing the nature of cable theft in South Africa, followed by the social and economic effects of cable theft. A broader discussion concerning the primary and secondary stakeholders affected by cable theft in South Africa also forms part of this section. The researcher further discusses the contributory factors (motives) of cable theft in South Africa, coupled with the characteristics of cable thieves, patterns and trends of cable theft, as well as the global commodity markets of cable theft.

This chapter further looks at the cable theft epidemic worldwide, as well as the challenges of combating this crime holistically. The discussion on the existing legislative procedures, acts, policies and current strategies in combating cable theft in South Africa are also highlighted in this section. Furthermore, the best international practices in developing and developed countries for combating cable theft are discussed in accordance with this study. Based on the literature review, this chapter also highlights the National Crime Prevention Strategy [NCPS] (1996) on cable theft in South Africa and the possible technology advancements to be employed in combating the cable theft in railway stations, both local and international.

2.2. UNDERSTANDING THE NATURE OF CABLE THEFT IN SOUTH AFRICA

Cable theft continues to pose challenges for railway networks as targeted cables play an important role like providing signals and as power conductors for overhead lines. This leads to a number of challenges like loss of signals which may cause unnecessary head-on collisions, train derailments and train delays. Railway networks are meant for the safe movement of trains, however in cases where thieves temper with cables pose danger to commuters and train operators. Furthermore, stealing of cables creates unnecessary delays, which ultimately lead to frustration among commuters because of the delays. The outcome of cable theft is not only restricted to that of delaying passengers but also entails costs for rail industry. As they have to replace the stolen cables, compensate families that lose their loved ones due to accidents prompted by cable theft (International Union of Railways [IUR], 2013:n.p).

In light of the above, Ellman (2012:3) states that "if cable theft continues there will be no effective public railway transport, no effective communication for trains to move freely and more importantly is that essential services will be disrupted due to cable theft, in some cases bringing the country to a halt". She further advocates that cable theft continuing on railways means that some people cannot go to work on time. This will lead to commuters having no train transportation for weeks, which obviously will have a knock-on effect for the economy. Trains will derail and there will be no signals, leading to further accidents occurring and passengers' lives being at huge risk. According to TFR (2010:n.p), the effects of cable theft hamper economic growth and

business productivity, directly curbing job creation in the process. It is essential to have efficient passenger and freight train operations for the daily economic growth within South Africa. Continuous theft of cables on train lines means that some people are not able to go to work and do their daily tasks. The theft of rail material poses great risks to the infrastructure and could lead to train derailments. This report went on to mention that theft of overhead cables on the rail line has reached unprecedented levels, with an average of 10 trains cancelled per day due to cable thefts. The direct cost to the company (replacement cost for cable only) is more than R42 million per year and the consequential losses due to the knock on effect runs into many millions more. The consequence of cable theft is not limited to financial losses but can also result in human disaster and tragedy. Cable thefts also often lead to the destruction of Freight Rail assets such as locomotives and wagons and can cost the company millions of rands in repairs and replacement (TFR, 2010:n.p).

Scholars like Ashby, Bowers, Borrion & Fujiyama (2017) postulate that when one investigates cable theft from railways should make a clear distinction between stealing of metal that is utilised as an integral part of railway networks. As these metals are different in nature, others are qualified as telecommunication wire, signalling cables and other metals, such as those that form the roof of a station. The characterisation of live metals does not essentially mean that these metals at all times carry electric currents. The only thing that should be taken into cognisance is that these metals play the necessary role in ensuring safe movement of trains. Stealing of live metals is considered to be more destructive in the sense that these metals are necessary for the entire operation involved.

A consulted media report, Daily News (2014:n.p). mentions that the theft of cable gets Metrorail into trouble with passengers who want to burn trains, and when a cable has been stolen from a railway stations, Metrorail has to replace that cable and, while fixing the railway stations after a cable has been stolen, they have to hire buses that will travel from one station to the next for passengers with weekly and monthly tickets. Lastly, this media report insists that cable theft remains one of the major challenges Metrorail is facing.

To support the discussion above, the researcher had an 'informal interview' with 'Mr. Gunpath' (Senior Investigator) of cable theft at TFR in Durban. This is what he said in verbatim regarding this crime:

> *"Cable theft is a serious crime that is not affecting only Transnet but it is also a national crisis. He continued to say Transnet has cancelled a lot of national rail services that will be of benefit to Transnet due to cable theft and this has been happening for quite some time and it has only been given a special attention the past 10 years."* (Informal Interview - Gunpath, 2017).

He went on to reveal the following in verbatim in line with the combating strategies:

> *"We try so many strategies to combat cable theft at railways stations but the crime is not decreasing but instead increasing and the theft happens on daily basis. He went on to mention that they would only manage to catch one or two criminals a month because of how smart the criminals are and even the railway police are not helping to prevent this crime"* (Informal Interview - Gunpath, 2017).

2.2.1. Social and economic effects of cable theft in South Africa

Cable theft is a major problem in South Africa with a huge impact on the South African economy. Cable theft puts out railway traffic lights, delays trains, puts commuters' lives at risk and cuts off critical communications. Durban railway stations is no exception.

Cable theft costs South Africa approximately R5 billion a year, according to an announcement made by the former Minister of Police, Nathi Mthethwa, in November 2013. This may be a very conservative estimate, as cable theft has become a national crisis with serious implications for the country's economy and security. Cable theft disrupts and delays the delivery of essential services such as health, communication and transport. Additionally, cable theft interrupts the flow of the rail system, resulting in increasing levels of rail industry frustration and financial losses to businesses (Institute for Security Studies [ISS], 2014:n.p). Moreover, the theft and vandalism of TFR assets contribute to the poor service delivery that in turn has an impact on the business, clients and the South African economy (TFR, 2010:n.p).

Identically to this crime, copper theft is having a devastating effect on the economy, resulting in indirect costs estimated at about R5 billion a year. Essential services provided by PRASA and Transnet have been seriously disrupted by the scourge, which has moved South Africa very fast into becoming one of the world's leading exporters of copper to countries such as China and India. In 2012, there were 72533 reported incidents of copper cable theft and 10736 arrests were made. This statement was made by the former SAPS deputy Provincial Commissioner in Gauteng, Major-General Shadrack Sibiya, in a special hearing in the National Council of Provinces (NCP) (Combined Private Investigations [CPI], 2013:n.p). However, Transnet's security head, retired general Rodney Toka, reported that from 2008-09 to date (referring the year 2013), the parastatal had suffered 6917 incidents of cable theft to the value of R95, 5 million and at a replacement cost of R239 million. This excluded the cost of train delays and cancellations (CPI, 2013:n.p).

These unlawful operations result to a lengthy period of outages, disrupted operating conditions and in other cases lead to fatalities. Moreover, these disruption brought by cable theft are not only restricted to rail industry but they also extend to the surrounding communities and further disrupt other significant public services (Vosloo & Mhaule, 2016:n.p). Despite the negative outcomes of cable theft, incidents of cable theft that are reported keep on escalating, as Transnet reported more than 6900 cases between 2008 and 2016 (Vosloo & Mhaule, 2016:n.p). In total, these reported incidents are estimated to amount $8.34 million (R112 643 292, 60) and replacement costs stood at an estimated value of $20.87 million (R281 878 359, 30), these values also include costs for train delays and cancellations. The reason for such high costs it is because these criminals do not only target copper but also steal aluminium conductors erected on overhead transmission lines and other parts of the supporting steel (Vosloo & Mhaule, 2016). However, the effects of cable theft can be attributed to the following:

2.2.1.1 Passenger Services

The Association of Train Operating Companies [ATOC] (s.a) in Ellman (2012:8) estimates that around 3.8 million passenger journeys were delayed or cancelled as a result of cable theft in 2010/11, with incidents in this period having caused over 360,000 delay minutes. A research conducted by Passenger Focus [PF] (s.a) in Ellman (2012:8) indicates that rail punctuality is the

single biggest driver of overall satisfaction with rail services, and this is undermined by the disruption caused by cable theft. In addition to delaying journeys, disruption also suppresses demand, as passengers switch to other modes of transport. The ATOC (in Ellman, 2012:8) highlights the following regarding this practice: "there is a clear link between reliability and our ability to attract people on to the railways and that approximately 500,000 passenger journeys were not taken last year due to this suppressed demand". Bennett (2008:178) reveals that copper theft has caused more than 240 000 minutes of delays for train passengers after a near five-fold rise in railway stations. Cable theft has caused rush hour chaos as 71 trains were cancelled due to cable theft at railway stations in Greater Manchester. British Transport Police (s.a.) in Bennett (2008) states that trackside copper cable theft is a major problem in north-east England, accounting for nearly two-thirds of the delays related to metal thieves in the United Kingdom [UK]. Nationally there were 1000 reported instances of cable theft in 2007.

2.2.1.2 Freight Services

According to Ellman (2012:9), the performance of rail freight services is equally affected by the disruption caused by cable theft in railway stations. However, rail freight experienced over 110,000 delay minutes due to cable theft over the past year and such delays may be compounded for freight services by the prioritisation of passenger transport and the additional costs associated with performance penalties to customers or delays in forward distribution. Freight operators also indicated that there is a reputational cost to their business, as increasing delays make transporting freight by rail seem less reliable.

Furthermore, in support of the viewpoint made *Supra*, cable theft in railway stations reason freight delays to power stations and on passengers (Network Rail, 2017: n.p). However, freight rail consist of block train consignments of primary minerals, such as ore and coal, and primary and secondary commodities. The latter include timber, steel, grains, fuels, and smaller proportions of industrial outputs, and imports and exports, such as motor vehicles, containers, and chemicals, where rail has a distinct advantage over road. (Freight Transport, 2017:n.p). This study argues that when the services such as imports and exports are disrupted on rail, the freight operators (i.e. Transnet) experience financial cost to their business.

2.2.1.3 Safety and Security

Ellman (2012:9) argues that there are various risks posed to offenders, rail staff and passengers because of cable theft: ten people have been killed on the railway during the year of 2011 because of cable theft-related incidents. Offenders risk their own safety by handling cables which may be live and vehicles or equipment left by the track could prove hazardous.

There are various risks posed to thieves, rail staff and passengers as a result of cable theft on railway stations. Most importantly, people have been injured on the railways in many member states during the past years because of cable theft related incidents (i.e. on 11 January 2011, an Intercity-Express [ICE] train derailed near the Dutch city of Zevenaar. This ICE train is believed to be a high speed train operating in Germany and its surrounding countries. Moreover, the cause of the accident is believed to be the theft of 300 metres of copper cable (IUR, 2013:n.p).

2.2.1.4 Maintenance of railway station post-cable theft

There are various cost attached to railways post-cable theft. Moreover, these cost are meant to ensure the smooth running of trains and safety of commuters. Direct expenses pertinent to metal theft to the rail industry ascend from railway maintenance. That maintenance, inter alia, replacing stolen cable and extra staffing requirements. In addition, if train delays attributable to railways infrastructure managers exceed a certain threshold, is required to compensate train operating companies for the disruption (IUR, 2013:n.p).

2.2.2 Primary and Secondary stakeholders affected by cable theft in South Africa

Cable theft is a massive problem throughout South Africa. Most affected are the big agencies that provide the backbone of the South African economy, namely, the rail industry and other organisations that form part of the local and international government (Honorine, 2013:n.p).

In an article written by Ntando Makhubu on IOL (2013:n.p), it is noted that cable theft is estimated to cost the economy more than R7 billion a year. Cable theft has a number of effects, among other things, affecting telecommunications, railway stations and even traffic lights. In addition, cable theft causes train derailment, cut off communications and electricity black out. The law realised that cable theft is much broader and cost the economy millions a month. Moreover, she further

stated that "Eskom, Transnet and Telkom have been identified as the major corporate victims of cable theft" (2013: n.p). The three aforementioned entities, which are secondary stakeholders together lost more than R3.12 billion to cable theft between April 2006 and December 2011. Out of the R3.12 billion, Telkom alone lost R2 billion over that period of five years and copper cable theft has cost PRASA and Metrorail (as primary affected stakeholders) R19.5 million since 2006. Arendse (2010:4) further provides that this "affects every day consumer to a countries' whole economy and it should be kept in mind that cable theft does not only affect the utility involved but also those to whom such utility is providing a service and in turn to those whom such provide their services or products".

2.2.2.1 Primary affected stakeholders

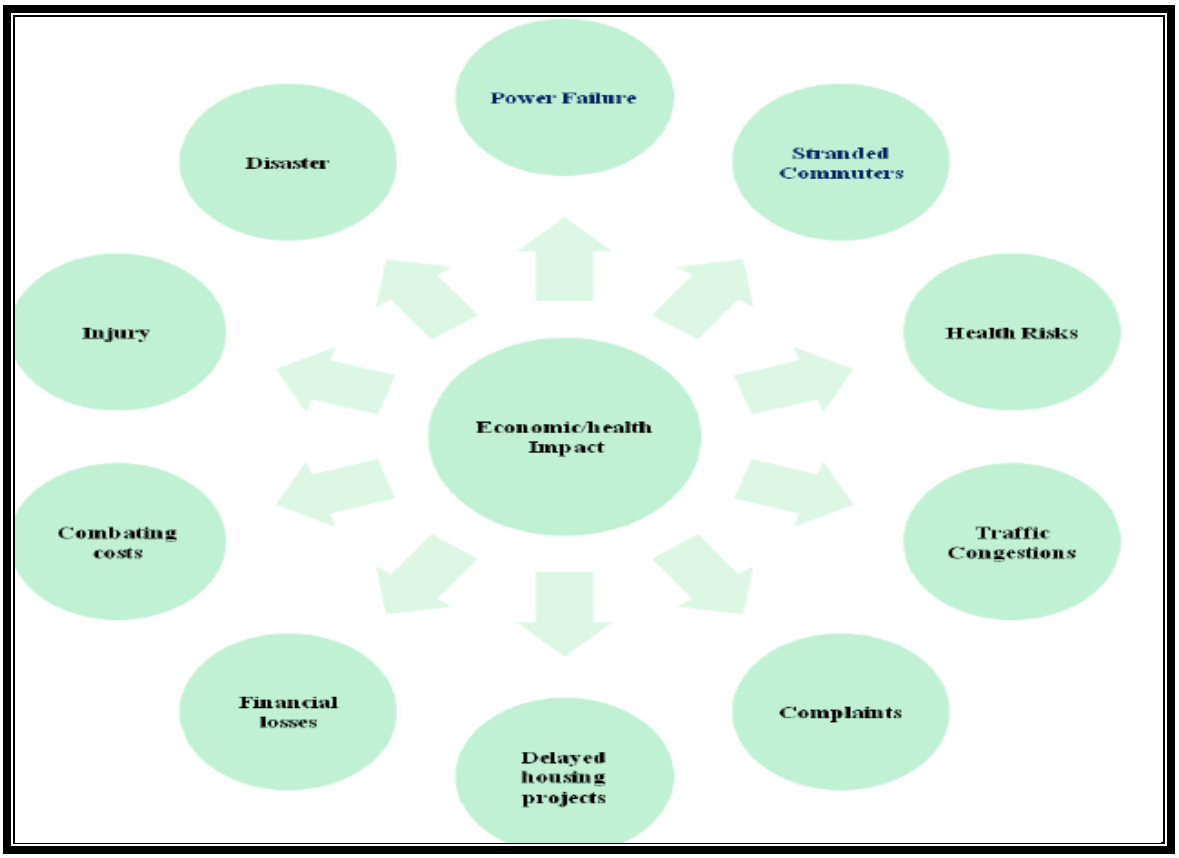
Arendse (2010:5) reveals that the government industries and businesses are seen as the ones that are affected most by cable theft and they have a huge amount of repairs and replacement costs. These are seen as the primary stakeholders relating to metal thefts; however, this kind of theft also affects those that need to combat it, as it increases expenditure on security measures. This heightened expenditure refers to the required manpower to curb incidents of cable theft combined with the requisition of costly state of the high-tech equipment. Pertinent to this, the principal stakeholders in combating requires assistance from the South African Police Force (SAPF), businesses, parastatals and local government. It is therefore vivid those who become direct victims of cable theft and those that are assigned with the duty of combating cable theft are characterised as the primary stakeholders affected by cable theft.

2.2.2.2 Secondary affected stakeholders

In this regard, Arendse (2010:5) insists that secondary stakeholders will be those receiving services, inter alia, stranded rail commuters, traffic congestion and eventually the economy, all attributable to power outages. Furthermore, the impact of cable theft is not only confined to that of disruption of the movement of trains but also affects other businesses. As it is embossed in the work of researchers like Arendse (2010) that the manufacturing processes in other production plants are halted or interrupted and that ultimately leads to profit loss and increases unemployment.

The following figure (2) explains the wheel-of-consequence related to cable theft.

Figure 2: Wheel of consequences cable theft



Source: Arendse (2010:5).

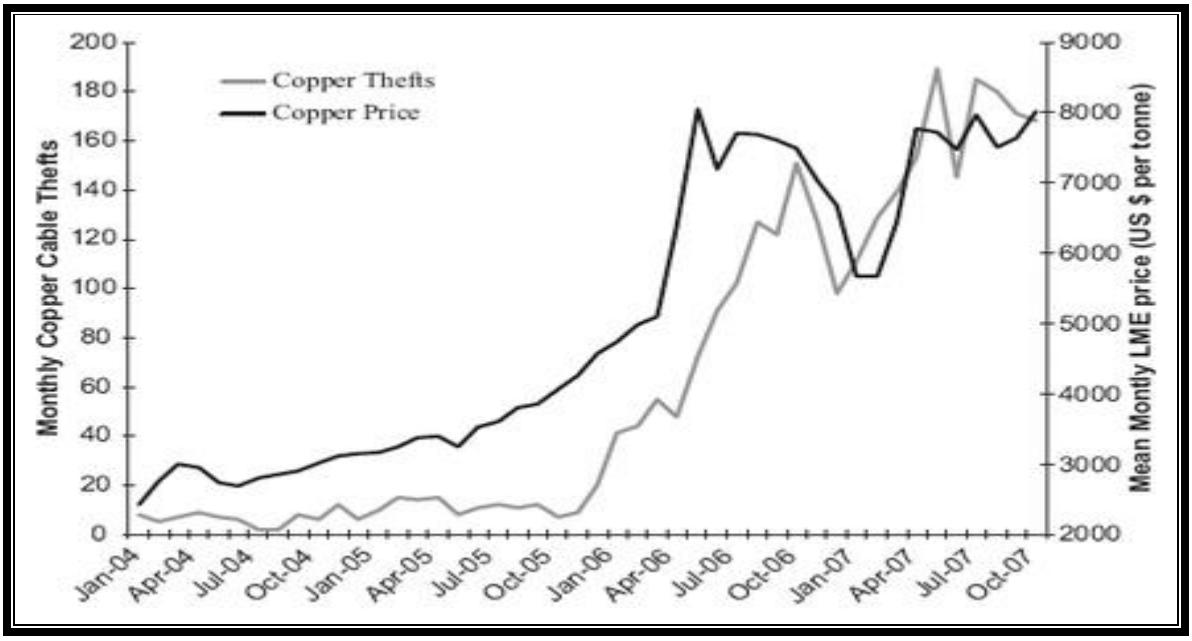
2.3. CONTRIBUTORY FACTORS (DRIVERS/MOTIVES) OF CABLE THEFT IN SOUTH AFRICA

Although various factors can contribute towards cable theft in South Africa, this research study focused mainly on causal factors. The following themes have emerged consistently in research studies undertaken across South Africa.

"It is believed that significant increases in the price of many metal and copper cables, mainly attributed to a global supply-demand imbalance are recognised as the main contributor to the surge on cable thefts" (Sidebottom, 2012:n.p). This is supported by the research that was conducted on

analysing the relationship between copper price and copper cable theft from the British Railway Network [BRN] Refer to (figure 3) whereby it is shown that with wide availability of cables, prices increases generating greater opportunities for offenders to sell stolen cables at financially rewarding prices at a low risk of detection.

Figure 3: The projection of monthly copper theft and prices



Source: Sidebottom (2012: n.p)

In revealing the scrap metal buyers, Sidebottom (2012:n.p) suggests that they play a major role in the cable theft problem. They are responsible for converting stolen cables into cash (or in some cases drugs), thus providing a financially rewarding incentive to steal. These scrap metal buyers involve middleman or the exact scrap metal dealers. Nevertheless, these metal dealers purchase stolen cable consciously or unconsciously. Additionally, insiders accustomed with the processing of copper or metal products are likely to join perpetrators in stealing copper cables and such actions exacerbate challenges affiliated with cable theft.

In support of the presentation made *Supra*, the IUR (2013:n.p) states that the scrap metal industry forms a 'pyramid' with metal or cables being moved from dealership to dealership until it reaches a small number of operators who are equipped to process and refine material. Once stolen cables

enters the chain, it becomes extremely difficult, if not impossible, to identify them. It is a common belief that the vast majority of stolen cables are sold to the scrap metal recycling industry rather than being directly exported, but the recycling industry is now much more regulated than the ordinary scrap metal industry, which leads one to believe that exportation is most often used by thieves. The scrap metal industry plays a vital role in the green economy with the collection, processing, exportation and recycling of all scrap metals. However, they also offer a low risk disposal route for stolen cables, often paying cash in hand with very few questions asked as to the identity of the seller and the ownership of the materials.

2.3.1. Types and characteristics of cable thieves

Ellman (2012: 11) stresses that perpetrators can be broadly split into two groups, small scale local offenders and organised crime groups. British Transport Police [BTP] (s.a) in Ellman (2012:11) insists that local criminals were responsible for the majority of thefts from the railways, these being opportunist but nonetheless professional criminals, and that up to 80% of those arrested for metal theft have previous convictions for similar crimes. Metal theft has recently been included in the serious organised crimes strategy, and the BTP welcomed this, but further note that at a maximum only 30% of cable theft involved organised criminal gangs.

The BTP (s.a) in Ellman (2012:11) also raises the issue of rail industry insiders providing information to cable thieves. Copper thefts have occurred in storage depots, which suggests that inside information about where these materials are stored is used. In connection to this discussion, the Network Rail [NR] (s.a) in Ellman (2012:11) explains that arrests were made on contractors and NR staff members are in connection with this crime. Torkelson (2010) in Pretorius (2013:49) states that petty crime criminals comprised the first group benefiting from copper cable theft. She further stated that petty crime criminals were often already involved in collecting scrap metal for subsistence purposes. Furthermore, Maseema (2013:n.p) classifies these criminals as ‘E-thieves’, stating that they steal opportunistically but do not plan the act of stealing. His characterisation of these perpetrators as ‘E-thieves’ is premised on the basis that their actions are inspired by the gaps arising from the weaknesses of the security… as they find it easy to steal these copper cables with the chances of being caught very low.

The second group, as collaborated by Torkelson (2010) and Geldenhuys (2010) in Pretorius, (2013:49) are said to be the scrap metal dealers. These researchers also state that not all scrap metal dealers were involved in crime and their work was considered fundamental and lawful. Nevertheless, the legal exchange of copper cables is considered to be more profitable compared to legal exchange, and as a result for the majority the opportunities are too ridiculous to decline. These 'market' opportunities presented by the selling of stolen copper cables motivated scrap collectors to engage in stealing of copper cables from sources close to residential areas.

Local scrap dealers play as a linking bridge to foreign markets such as that of China and Pakistan as cable thieves sell stolen copper to them. However, there were legislations that were passed after recommendations that were advanced by various analysts to curb the increased selling of stolen copper theft to the second hand goods industry. Among other things, these regulations included policies that were meant to govern the second hand goods market. However, those legislation failed to yield the intended results as the infamous/notorious scrap dealers discovered other disreputable ways to evade these legislations. "Some of these innovative ways were; sponsoring 'mobile' scrap yards; buying illicit copper from traveling vehicles; establishing smelters at Peri-urban farms; changing the appearance of illicit copper, and opening unregulated bucket shops to 'clean' the copper before supplying licensed agents" (Torkelson, 2010:1).

A third group was identified to be consisting organised crime networks. These syndicate type of criminal groupings were implicated in the theft of kilometres of cable from peri-urban or rural areas in Gauteng, the North West and KZN. In this group foreign or international organised crime elements such as the Chinese Triads and other Asian groups were mentioned. These foreign groups were so arrogant that they bypassed local scrap agents altogether in response to the increased scrutiny. It was also revealed that one Pakistani syndicate, with an address in Hillbrow, was using shipping containers in deserted areas as drop-off points for stolen copper. These containers were then driven to Durban and shipped abroad with falsified customs paperwork (Torkelson, 2010:1).

Maseema (2013:n.p) classifies this group as 'greed' or 'G' thieves. The classification of this group as 'G' thieves is premised on the basis that this is a group of thieves who are driven by their greed or unending desire for self-aggrandisement. In addition, these people use their expertise in stealing and collaborate with those that are available in their networks to form organised crime syndicates. These syndicates work closely with people who possess the necessary skills in working with

electricity, as they are useful in terms of identifying which points to target. The highly targeted areas are those that have cables that transmit high electricity voltage, as they contain more copper. Moreover, their knowledge of electricity does not only end with identifying suitable points but also extends to understand suitable times to execute their notorious activities. These criminals are aware of the extent of danger that comes with targeting high power systems hence they execute their work with meticulousness. In an effort to execute their actions with precision they employ sophisticated instruments, inter alia, vehicles, moveable grinders/cutters, and pick axes. Stealing copper cables to them is not an abnormal thing as they see it as the profession or employment of some sort, which enables them to sustain their lives. As their lives depend on stealing copper cables they brook no obstacles or anything that seeks to stop their actions, as they go as far as killing where the need arises. Lastly, their target market is not only confined to local dealers but they also sell these copper cables to foreign markets/countries.

A fourth group, possibly also benefitting from copper cable theft, was the private security industry. This was by implication and mostly in an indirect way. They were reluctant to help combat copper theft for reasons of job security. Even though some had been awarded large contracts to help combat this crime and to protect state assets, there was very little evidence of this attempt having been successful. (Torkelson, 2010). In supporting the research conducted by Torkelson (2010) Peggy Drodskie in Business Live (2011:n.p), the Executive Advisor to the South African Chamber of Commerce and Industry states that "copper theft seems to be driven by syndicates".

Bindeman (2011) in Pretorius (2012: 51), advocates that these groups of organised crime syndicates are by and large made up of twenty (20) or more members. The stealing of copper cables around railway stations persist. That persistence is underscored by the fact that it is difficult to catch all members of these syndicates. As the majority of cases reflect that only a certain percentage of members that get caught, among those members include, cutters and transporters. In scenarios where those who occupy the upper echelons of these networks get caught usually coerce those with no power to take the entire blame without mention their handlers. In addition, these people hire reputable legal teams which assist to acquit them of the wrongdoing. Immediately after they are acquitted of such crimes, they roam the streets and continue to execute these unlawful activities. In the words of the former Telkom spokesman Thokozani Mvelase (s.a), in cases where offenders were not of South African origin got caught were deported, however, were reported to

have returned within a very short space of time. Upon their return they reengaged in the very crimes. These offenders were also dependent on stealing copper cables and some of them were more dangerous as they were said to be former military staff.

2.3.2 Patterns and Trends of Cable Theft

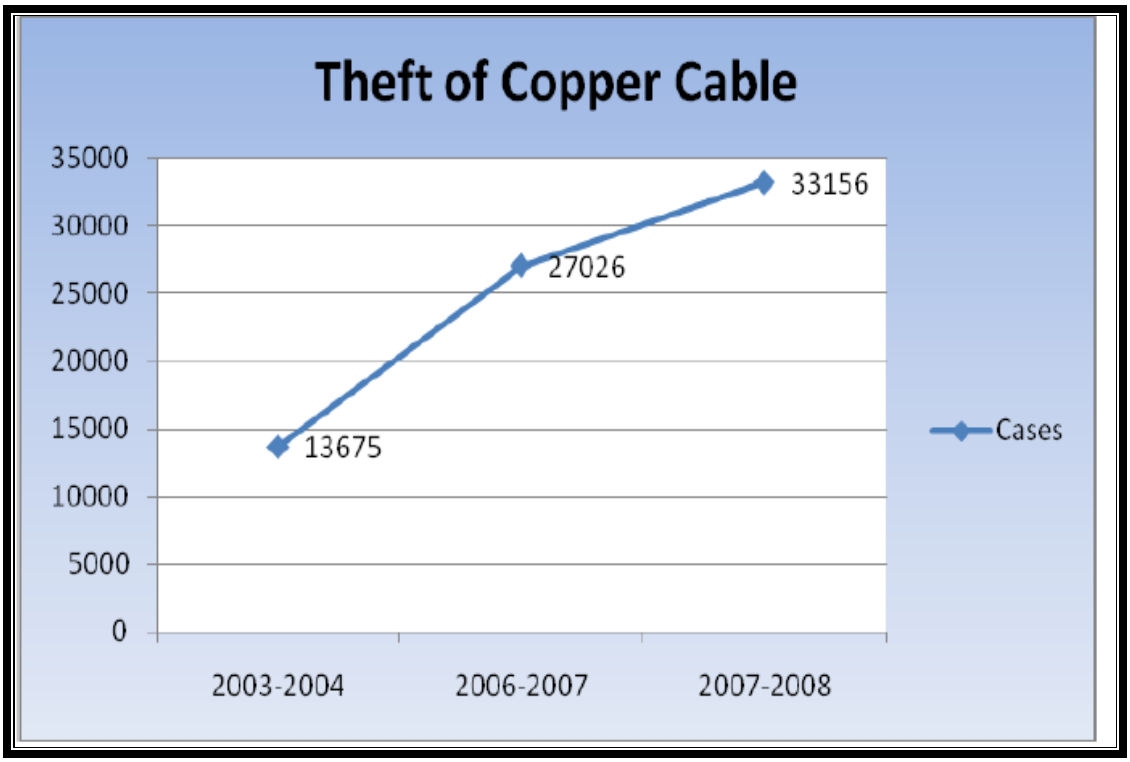
Sidebottom, Ashby and Johnson (2014:685). Proclaim that "a common interpretation is that general increases in the price of metals experienced in the past decade have made this type of crime more attractive to thieves". These researchers stress that metal prices are an example of a macroeconomic environmental factor that might influence offender decision making. However, from a crime opportunity perspective, all things being equal, increases in the price of metals would be expected to make the theft of metal more attractive which, in turn, should lead to an increase in the frequency of metal theft.

2.3.2.1 Trends of Cable Theft

Sidebottom (2012:n.p) provides that metal theft "is one of the fastest growing crime types internationally and it has been noted because most industrialised countries have witnessed general reductions in acquisitive crime over the last decade". Precise estimates on the extent of metal theft nationally are difficult to obtain because of the absence of a designated metal theft crime category. The British Home Office [BHO] (s.a) in Sidebottom (2012:n.p) estimates that there were around 100,000 police recorded metal thefts in 2010/11. According to British Transport Police (s.a) in Sidbottom (2012:n.p) records of crime data shows the levels of copper cable theft to have increased rapidly from 2005/06 to 2010/11 respectively.

Figure 4 shows a clear steep increase of the theft of copper cable year on year from 2003. This is the spike period also for the price of copper internationally. All of the copper stolen is suspected of being traded at scrap dealers for cash, who in turn export the copper (Arendse, 2010:3).

Figure 4: Increase of theft of copper cable: 2003-2008 globally



Source: Arendse (2010:4)

2.3.2.2 Metal Theft by Country

The following occurrences of metal theft globally provide some identification of a pattern as it is clear that worldwide metal theft has a devastating effect on infrastructure and economy:

- **Australia -** Copper wiring was stolen from a variety of locations including rail tracks, power stations and scrap metal depots.
- **Brunei -** July to September 2005 a gang of thieves dismantled and stole parts from more than 60 power substations in the country.
- **Japan -** Reported 5700 metal theft cases in 2007.
- **Russia -** Telephone lines and electricity cables leading to military bases stolen in 2001.
- **UK -** Annual damage to industry due to metal theft estimated at 360 million pounds.
- **South Africa-** Cable theft statistics increased by a total of 242% from 2003/04 to 2007/08 (Arendse, 2010).

It is clear that metals theft is a global phenomenon and affects both infrastructure and the economy, with copper theft being the most predominant form of metal theft.

2.3.2.3 Patterns of Cable Theft

Figure 5 shows the frequency of live-cable thefts from the railway network between 2007 and 2012, overlaid with the international wholesale price of copper on the London Metal Exchange during that period (Ashby, Bowers & Fujiyama, 2014). Moreover, the number of thefts each month appears to be volatile, with between 20 and 131 offences occurring. Notably, there have been two peaks in cable theft, extending from early 2007 to late 2008 and then from early 2010 to late 2011. These peaks were followed by sharp decreases in the frequency of thefts, such that by the end of 2012 there were fewer offences than at any time in the previous six years (Ashby *et al.*, 2014). Furthermore, Sidebottom *et al.* (2011) cited by Ashby *et al.* (2014:5) discussed the close correlation between the incidence of theft and the price of copper, concluding that"thefts are at least partly driven by the changing value of copper". Figure 5 shows that this relationship appears to have broken down during 2012, when the price of copper remained steady but the number of thefts dropped sharply. This may be due to the introduction of a factor not previously present, such as increased targeted policing or better physical security.

Figure 5: Patterns of live-metal theft

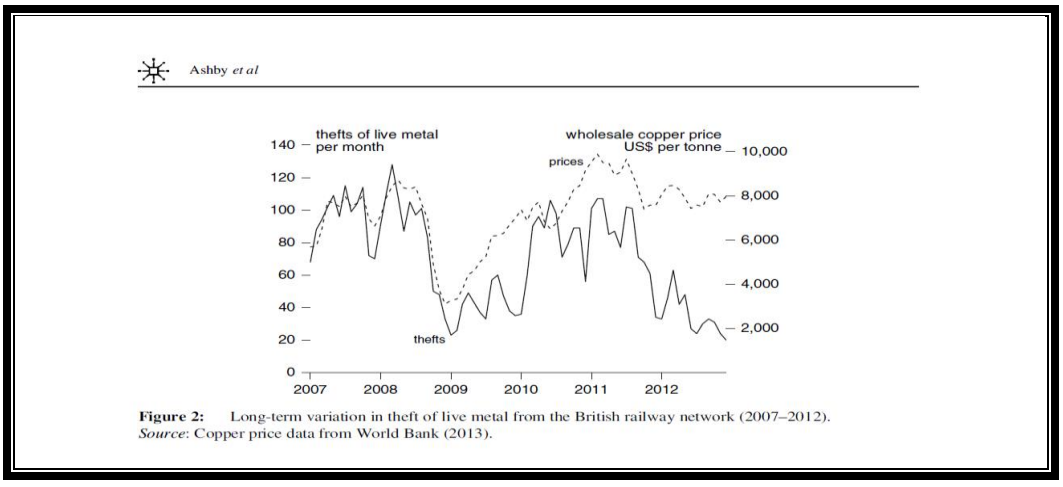


Figure 2: Long-term variation in theft of live metal from the British railway network (2007–2012).
Source: Copper price data from World Bank (2013).

Source: (Ashby *et al*., 2014)

2.3.3 Globally commodity markets of cable theft

Cable theft is a market-driven crime and there is little doubt that copper cable theft is a growing problem in South Africa, particularly for the electricity, telecommunications, and railway parastatals Eskom, Telkom, Transnet and PRASA (Torkelson, 2010). Furthermore, Torkelson (2010) proclaims that the consistently high price of copper makes it a valuable commodity for illicit business. Most importantly, thieves are sophisticated market analysts, who decide when the price of copper has risen to a point where the theft of this particular commodity (weighed against the risk) is more financially rewarding than any other.

In addition, copper is widely easy to access on railway stations. It is poorly protected and easy to steal due to the extensive transportation, power and communications networks of Transnet, Eskom and Telkom. It is also extremely easy to sell, due to eager scrap dealers looking to profit from the global price increase. Consequently, there are many actors from petty thieves and organized criminals to scrap dealers and private security companies benefiting from this illicit economic activity (Scheepers, 2013). Regarding the world price of copper, Bennett (2008) indicates that it is risen by 180 per cent since the mid-2000s to sustained record heights. Warehouse stocks of copper on the international metal markets are at very low levels. The demand for copper has fuelled a conspicuous rise in the pillaging of the built environment around the world. It is rarely the case that clear cause and effect relationships can be shown between abstract global factors (i.e. the price of metals) and local behaviour, but there is a clear correlation between the rise in metal theft crime rates and the current spike in the world metal prices.

In other countries, mostly developed countries, copper cable theft is received as an odd outcome of economic development that usually occur in peripheral part of the world. Moreover, a report compiled by the LME in December 2010 reveals that an individual trader constitutes about 90% of the LME warehouses, which is considered to be worthy of 3 billion pounds (R5438.02 billion) (Hepburn, 2013: n.p). This 90% is estimated to constitute almost 50% of the recorded supply of copper globally. Ellman (2012:5) stresses that cable theft in UK has increased, and that increase is motivated by the price escalation of metals on the metal industry and this tendency of stealing copper cables in railways does not seen to be lessening. Lastly, huge chunks of copper have been directed to China, nevertheless, significant amount of that is kept in stockpiles more than used in

developing infrastructure. Be that as it may, it is increasingly difficult to get the concise amount of copper kept in stockpiles of China (Hepburn, 2013: n.p).

2.4. THE CABLE THEFT EPIDEMIC WORLDWIDE

The challenge of cable theft is not only witnessed in South Africa but it is also happening in other countries around the world. The foregoing claim is buttressed in the work of Hepburn (2013: n.p) when he writes about the report released by the British Police that "cable theft [was] the next biggest priority after the terrorist threat." Congruently, cable theft is also prevalent in some parts of Canada. The Canadian government was impelled by the ascendance of cable theft to specifically delegate police officers to deal with cases of cable theft. Moreover, in the province of Calgary the Canadian government was faced with the same situation and there were scores of people who were arrested after they were being suspected of stealing copper in Hydro-One facility. On one hand, the US rail industries and railroads were as well threatened by thieves of copper cables. On the other hand, cable theft is emerging in the UK as a new industry. As there were more reported occurrences relating to cable theft in the first half of 2011/12 compared to 2009/10 (Ellman, 2012: 5). In UK these thefts costed the NR an amount estimated around £43 million (R 755, 72 million**)** over the past three year. Moreover, cable theft did not only had significant financial implications but also brought about huge interruptions and delays for commuters. More importantly, cable theft disturbs railway system in many ways, among others include, the signal loss of communication between trains that are on the railway stations, train delays and train derailment (Ellman, 2012:5).

Not having proper protection against copper theft puts your infrastructure and workforce at great risk. Copper theft presents multiple issues for businesses - the gravest of which is the possibility of the death of someone coming in contact with a compromised electrical system. Every year, people die of electrocution due to exposed wiring and currents not being diverted after copper has been stolen from utilities and other locations. Stolen copper can also be costly to replace; the US Department of Energy (US DoE) estimates that copper theft can cost more than ten times its initial cost to repair. This is due to the replacement cost, down time, additional labour, and other costs that add up to far beyond the actual cost of the copper itself. Copper theft does not only cost you in replacement time and money but also in system reliability. The potential impact of power

outages due to copper theft can effect critical local infrastructure through service disruptions and reduced system output. As a result, it is essential for utilities and companies to have effective safeguards in their copper infrastructure (Department of Energy, 2015:n.p).

The soaring demand from China and India was also highlighted by the consulted studies. To this end, Milmo and Carter (2010:n.p) mention that this demand "has pushed copper theft from railway infrastructure to record levels in Britain, resulting this crime wave hitting 11,000 trains in a year and delayed a million passengers". Network Rail (NR) highlighted the problem in the north-east of England when the copper boom took off four years ago. It has set up a taskforce to deal with incidents that have seen £35 million (R 615, 12 million**)** worth of copper stripped from rail sides since 2006. Nevertheless, NR estimates that if the epidemic is unchecked, the annual takings of copper thieves will be £20 million (R 351, 50 million) a year by 2014. At the same time, "Metal thieves targeting the railway are causing misery to thousands of passengers and freight users and costing the industry and the wider economy tens of millions a year and rising," said Dyan Crowther, NR's Director of Operational Services [DoOS] (s.a) in Milmo & Carter (2010:n.p) The NR estimates that passengers are delayed by nearly 500,000 minutes a year due to the thefts. The BTP spokesman said, "Generally the thieves tend to go for the signalling cable and at that moment there is no danger to rail passengers, as the signals automatically revert to red, this stops the trains and means you are never in a situation where there is a collision as a result of failing signals" (Milmo & Carter, 2010:n.p)

With the increase in copper prices, copper theft, which was once a nuisance factor, has now become a major problem for the telecommunications industry. Copper theft in the US alone has a cost impact in excess of US 1 billion dollars (R13, 13 billion) per annum and it is estimated to be even greater across Europe. Copper theft in the telecommunications sector includes the theft of ground bars, cables and grounding conductors (Narayan & Regan, 2013:n.p).

Furthermore, in July 2013 www.finance.yahoo.com website had this report:

"There was a perception that copper theft slowed down after the recession, and the rise in commodity prices seemed to ease off. But that's not the case. To this course, the theft has only been growing, the Federal Bureau of Investigation [FBI] believes that copper theft is threatening U.S. critical infrastructure by targeting electrical substations, cellular towers, telephone land lines,

railroads, water wells, construction sites, and vacant homes for lucrative profits" Narayan and Regan (2013:n.p).

Network Rail (s.a) in Sanders (2011:n.p) admits track-side cable theft has reached epidemic proportions, with up to five daily attacks in the North East of England alone. On the other hand, stranded passengers said they were left for hours with no ventilation or food, labelling South West Trains (SWT) "a disgrace". Again, thousands of passengers were stranded for hours as 60 trains ground to a halt, after thieves targeted cables at a signal station in the south west. Dyan Crowther, DoOS at NR (s.a) in Sanders (2011:n.p), said, "I cannot over-emphasise just how serious these crimes are, cable thieves deny passengers the service they rightly expect and, through the massive cost to the industry, deny everyone improvements to rail services".

2.5. CHALLENGES OF COMBATING CABLE THEFT

Electrical Review (2013; n.p) highlights the triple challenge of fighting against the crime of stealing electrified cables in railway stations.

In short, Electrical Review (2013:n.p) indicates the three main aspects, namely:

- How to make cables less attractive target for thieves.
- Making cables more identifiable will discourage scrap metal yards from buying stolen cable.
- Ensuring compatibility with existing cables will keep installation, maintenance and replacement costs to a minimum.

2.5.1 Making cables a less attractive target

Thieves are attracted by cables that contain pure copper. This requires the government and other involved stakeholders to be proactive in the sense that they should reduce the amount of copper they put in these cables and even go to the extent of replacing these copper cables with less valuables metals. Replacing cables with high concentration of copper would assist in terms of lessening the incidents of stolen cables. However, this may be an expensive activity as some metals are not quick conductors of electric currents. Therefore, the involved stakeholder would have to

be prepared to fork out huge sums of money to make these targets less attractive (Electrical Review, 2013:n.p).

To overcome this, a group called Nexans, a worldwide expert in the cable industry, offers an extensive range of cables and cabling solutions. Furthermore, this group is a global player in the energy transmission and distribution industry and building markets (Nexans, 2012:n.p). Nexans addresses a wide series of market segments from energy and telecommunication networks to energy resources (wind turbines, photovoltaic, oil and gas) to transportation (shipbuilding, aerospace, automotive and automation, railways). Nexans is a responsible industrial company that regards sustainable development as integral to its global and operational strategy. Continuous innovation in products, solutions and services, employee development and commitment, customer orientation and the introduction of safe industrial processes with limited environmental impact are among the key initiatives that place Nexans at the core of a sustainable future (Nexans, 2012:n.p)

This group is dedicated to reducing cable theft in railway stations and it uses complex, multipurpose, sophisticated protection to foil poorly trained and under-tooled criminal gangs along busy suburban lines (Nexans, 2012: n.p). Moreover, they enable police to arrive at the crime scene within minutes once a cut is detected. Nexans introduced solutions for surface-installed grounding wires and rail joiners. Most importantly, this group is fully compatible with existing installation techniques on railway stations, as it integrates steel wires in the oversized copper conductor, replacing several copper wires with steel. The steel wires complicate cable cutting, making the cable more difficult to sever. The other benefit of mixing the copper and steel is that the cable's value on the black market is only a fraction of that of pure copper (Electrical Review, 2013:n.p).

In a positive conclusion, this solution is now being deployed in the south of the country and installers and maintenance workers have accepted the new cable with enthusiasm due to its compatibility with existing technology. Rail networks in South America and Scandinavia are now showing an interest in the solution, which can also be applied to metros and railways (Electrical Review, 2013:n.p).

2.5.2 Cable Identification

The traditional approach to marking the origin and ownership of railway cable has been to print the rubber insulation with identity markings but thieves easily overcome this by burning off the insulation. Perversely, this also benefits the thieves as it preserves only the pure copper, making the 'fencing' process simpler (Electrical Review, 2013:n.p). Moreover, the challenge was to develop a near-indestructible form of identification so that potential buyers and third-party scrapyard auditors can be aware of stolen goods. One approach would be to tag the copper with rare earth elements, creating a 'fingerprint' but this is complex, expensive and can be difficult to spot. In short, copper theft is a worldwide concern that creates serious safety and operational issues for railway networks and Nexans is working closely with many customers to develop solutions that can significantly help to address this problem (Nexans, 2012:n.p).

Most cables – earthing cables in particular – are constructed mainly from copper, making them extremely valuable and appealing to thieves (due to the high resale value of scrap copper). Usually when cable is stolen the insulation, which could be used to identify the owner, is burnt off the cable just leaving the copper conductor (Nexans, 2012:n.p).

One aspect that cannot be overlooked is that copper recycling is a vital element of the copper supply chain and it is very difficult to establish the origin of recycled copper. However, these new technologies offer excellent potential to railway operators to make their rail cables less attractive to steal. They also provide the wider copper supply chain with new tools to identify when stolen copper comes into the eco-system (Electrical Review, 2013:n.p). But the challenge is not only about finding the solutions to the challenges posed by cable theft. A key task for the industry is to promote and communicate them across the recycling community so that scrap metal traders know what to look for, and also to make it clear to potential thieves that they will find railway cables hard to steal and even harder to dispose of (Electrical Review, 2013:n.p).

2.6. CRIME PREVENTION MODELS TO COMBAT CABLE THEFT

The South African Law Commission's [SALC] (2009) in Dlamini (2015:30) proclaim that "findings on 'victim's compensation' of cable theft, submits four theoretical arguments for the implementation of a Victim Compensation Scheme (VCS)". These are:

- **Legal Liability Theory:** This argued that the State has a legal duty to compensate victims for all damages and losses suffered because an offence was committed and the State was considered responsible for allowing it to be committed.
- **Social Contract Theory:** The philosophy of moral duty and thus violent crime victims have the privilege, not the right, to receive compensation, which is granted on grounds of sympathy, goodwill and humanitarian reasons (not because the State is liable for all crimes).
- **Accountability Theory:** The State makes contributions available to crime victims**,** and then a partnership is formed with the State in combating crime. This is likened to an insurance scheme where the State wants to maintain society to minimize pay outs and citizens act responsibly to keep tax payments down.
- **Utilitarianism Theory:** the successes of a compensation scheme will benefit the judicial system and therefore will help restore relationships within the community. If victim compensation is available, victims will be more likely to cooperate with the justice system and possibly get involved in fighting crime.

These four models of understanding could also be applied to the need for empowerment for victims of crime and are worth reflecting on, together with the broader definition of a victim. In addition to this there are certain elements in a victim's path to healing that require elaboration. These include the principles of empowerment, avoiding secondary victimization, an understanding of the healing as a process, access to the necessary medical services, compensation and access to justice. From these four models, a crime prevention model emanated for the need and implementation of the programmes and services for victims of crime.

The crime prevention model states that by treating crime victims better they maintain their respect for the law. Victims then cooperate more willingly with the criminal justice system, which again benefits crime investigations and prosecutions (Pretorius & Louw, 2005:78). This model combines and extends the care and criminal justice model to improve the provision of services to victims.

By its research design and processes, this research offers an exploratory study dealing with the programmes and services available to victims of trio-crimes within the Durban Metropolitan Area. For the purposes of this study the focus was on the crime prevention model in victimology. A better procedure for crime victims is important in the fight against crime because:

- **An increased cooperation of the victim is essential for effective criminal investigation** - This means that the victim must not only report the crime to the police, but also cooperate with the police and the rest of the criminal justice system to ensure successful arrest, prosecution and conviction of the offender.
- **Victim-oriented prevention can contribute largely to lowering the crime rate** - The level of crime is partly determined by the availability of suitable targets and potential targets, and actual victims can significantly decrease the chances for opportunistic crimes.
- **A person who has been victimised once runs a relatively high risk of becoming a victim again** - Specific advice to and guidance of victims can break the cycle of repeat victimisation.

On the evaluation of this model in the Netherlands, Snyman (2005) in Dlamini (2015:32) indicates that "when victim services are made part of crime prevention, victims have a more positive attitude towards the police and the criminal justice system as a whole, and they feel more obliged to respect the law and therefore less likely to become offenders in future".

2.7. EXISTING ACTS, POLICIES AND CURRENT STRATEGIES IN COMBATING CABLE THEFT IN SOUTH AFRICA

The Criminal Procedure Act (Act 51 of 1977) emphasises that an innocent person shall not be convicted, and that a punishment or other criminal sanction shall be imposed on the person who commits a criminal offence (Criminal Procedure Act, s.a:n.d). Osterburg and Ward (2010:n.p) went on to proclaim that most working investigators hold that their work is unique, that few tasks even come close. Therefore, it is the ultimate challenge to an investigator, demanding the highest professional standards if the case is to be proved in court. In support of the above viewpoint, this study adheres to the legislation that focuses mainly on combating the crime of cable theft in Durban

railway stations; therefore, it is vital to use the following pieces of legislation as they also focus on crime prevention:

2.7.1 The Constitution of the Republic of South Africa (Act 108 of 1996)

In brief, A Constitution is a body of fundamental principles according to which a State is to be governed. However, it sets out how all the elements of government are organised and contains rules about what power is exercised, who exercises it and over whom it is exercised in the governing of a country. It can be seen as a kind of contract between those in power and those who are subjected to this power. Lastly, but not least, it defines the rights and duties of citizens, and the mechanisms that keep those in power in check and it has been called the "birth certificate" of a free and democratic South Africa (Founding Provisions Constitution, 1996:n.p).

The purpose of this constitution is that it reflects the unique history of South Africans and the goal for freedom and democracy of the citizens. Given South Africa's past, it is not surprising that the Constitution frequently stresses the need to create a society that is "open and democratic", and that it emphasises dignity, justice and equality (Founding Provisions Constitution, 1996:n.p). In the South African context, The Constitution on chapter 11 of security services, Section 205 of police service, sub-section (3) stresses that the objects of the police service are to prevent, combat and investigate crime, to maintain public order, to protect and secure the inhabitants of the Republic and their property, and to uphold and enforce the law (The Constitution of the Republic of South Africa, 1996). This Act relates to this research study as it utilises the police services to effectively combat and investigate the cable theft in Durban railway stations.

2.7.2 Second Hand Goods Act (Act No. 6 of 2009)

The researcher thinks that a second hand good is a piece of personal property that is being purchased by the second user. However, in South Africa this Act regulates the business of dealers in second-hand goods and pawnbrokers in order to combat trade in stolen goods, to promote ethical standards in the second-hand goods trade, and to provide for matters connected therewith (Government Gazette, 2009:n.p). This Act further endeavoured to promote self-regulation. It also seeks to tighten up possible loopholes in the old act. Currently the approach is to prosecute cable theft under the common law theft offence that does not seem to give much attention to the

consequences of the crime committed, when one considers the lack of conviction and, if positively convicted, the miniscule sentences issued in this regard.

In addition, the current Mayor of Cape Town, Patricia de Lille, highlights that this Act gives the law enforcement an authority to enter and conduct searches and seizures, and seal off premises where second-hand goods are found in order to prevent a person from conducting business in contravention of the Act (News 24, 2017:n.p). De Lille further stressed that cable theft is a major problem in the city of Cape Town due to the growing demand in illegal trading circles. Therefore, the illegal trade of cables costs the country between R5bn and R7bn a year. This study supports what has been amended on this Act as it was not effective at all in combating and investigating cable theft. However, this study tries by all means to combat the theft of cables as the findings of this study highlighted that one of the contributing factors to cable theft are the second hands goods dealers. This Act is in support of what this study aims to achieve.

2.7.3 Scrap Metal Dealers Act (Act No. 10 0f 2013)

Scrap Metal Dealers Act is an act of the Parliament of the United Kingdom which will amend the law relating to scrap metal dealers. This Act was introduced by Richard Ottaway a British Conservative politician. Most importantly, the Scrap Metal Dealer's Act in the UK was introduced in October 2013. The intent of the Act is to prevent cable theft that can then be sold for cash. Scrap metal dealers will need to take details of the seller and record it rather than pay cash for metal. This Act will ensure that sales of scrap metal are accounted for and that all people trading scrap are doing so legitimately. (United Kingdom legislation, 2013:n.p). It is thought that the scrap metal industry has played a role by providing an opportunity through which thieves can sell stolen goods and it is believed that the drivers of metal theft are thought to include high metal commodity prices, the widespread availability of metal to steal and a low risk of detection (House of Commons, 2012).

In the South African context, this Act is by all means trying to combat cable theft through regulating the use of scrap metal industry. Vector (2013:n.p) advocates that cable theft is putting a big dent into South African industries, looking closer at the loss of income due to the ongoing problem of cable theft. Vector (2013:n.p) emphasised that if cable theft is not restricted it will lead to the trade of scrap metal or the selling or buying of the second hand goods. This means the

victimized industries or/businesses will keep on losing this endless fight against combating cable theft.

In a positive conclusion, Vector (2013:n.p) yielded the following:

> *"The solutions is quite simple, we implement a Scrap Metal Act that will control the scrap metal dealers in South Africa. This consolidates dealers and motor salvage operators under one licensing regime, makes it tougher to get a licence and allows councils or government to revoke it, and requires sellers to provide ID at the point of sale and have it recorded by the dealer. It also makes it easier for police and Department of labour inspectors to inspect sites, raises the level of fines that can be issued for offences, and creates a central public register (hosted by the Department of Labour [DOL] enforcement inspectors) of all licensed dealers. It might not make the problem just disappear but it will most definitely help".*

Therefore this study has taken note of the components of this Act in trying to combat cable theft in the South African context. However, the discussion above is by all means trying to fight against the crime of metal cable theft taking place on railway stations and in other public spaces and the scrap metal dealers are also monitored to see if they put this Act into practice.

2.7.4 White Paper on Safety and Security (1998)

In short, the 1998 White Paper on Safety and Security set out a policy framework for safety and security for the period from 1999 to 2004. However, this was developed in the context of the need to respond to "the challenge of enhancing the transformation of the police", the 1998 White Paper on Safety and Security sought to equip law enforcement officials with the tools to increase the effectiveness of social crime prevention activities and to reduce the occurrence of crime (Civilian Secretariat for Police [CSP], 2016:n.p). Furthermore, the objectives of the 1998 White Paper on Safety and Security were:

- To define the strategic priorities to deal with crime.
- To articulate the roles and responsibilities of various role-players in the safety and security sphere.
- To clarify the role of the Department of Safety and Security within a constitutional framework.

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The Civilian Secretariat for Police (2016:n.p) asserts that the focus of this White Paper is crime and violence prevention, which a necessary precondition for increasing people's feelings of safety and building safer communities. This study highlights the importance of the following:

- Living in safe environments
- Playing a role in creating and maintaining a safe environment
- Feeling that you are safe from crime and violence and conditions that contribute to it

The study explores the nature of cable theft in railway stations. Therefore, the utilisation of this legislation will assist in developing relevant structures to promote the safety of the commuters in the stations, and ensures a conducive environment in the Durban railway stations.

2.7.5 Criminal Matters Amendment Act [Act No.18 of 2015]

This Act was signed into law by the former President Jacob Zuma and seeks to provide for severer measures relating to bail and sentencing in respect of essential infrastructure related offences (IOL, 2016:n.p). This law places harsher penalties on those who steal or vandalise essential infrastructure. It is said that only the courts will deal with bail applications for essential infrastructure related crimes. Furthermore, this Act removes the discretion of police officials and prosecutors to grant bail to suspects charged with essential infrastructure related offences. It further provides for the possibility of up to 30 years' imprisonment or a fine not exceeding R100 million in the case of a corporate body (IOL, 2016:n.p). The above-discussed piece of legislation fits this study well as it highlights the punishment the cable thieves can get when caught in the position of stolen cables. Moreover, it is believed that the price of copper and its strong demand in the markets are promoters of this crime. Lastly, this study warns the cable thieves to think twice before committing cable theft.

2.8. INTERNATIONAL PRACTICES IN DEVELOPING AND DEVELOPED COUNTRIES FOR COMBATING CABLE THEFT

2.8.1 Reduction of copper value

In the United States of America cable theft in railway stations is taken extremely serious and huge amounts of money are spent in trying to fight against this crime. One of the strategies employed in this developing country include intelligence through registered informers and a tip off system that rewards informants $1000 (R 13132, 15) for positive information in relation to the stolen cables. However, in order to curb copper theft, USA companies like American Electric Power replaced all-copper grounds with ones consisting of copper wound around galvanised metal known as copper weld. The idea behind this is that copper-weld is worth less than pure copper and to unwind the copper from the cheap metal rod is very time consuming. Another way to reduce the theft of copper being investigated in developing countries is the coating of copper with aluminium. The idea behind this is that the coating would reduce the value of the copper for sale purposes, indirectly discouraging copper thieves to make the effort. However, thieves cannot always tell that it is a copper weld when they steal it, so it may not deter the damage done in this regard (Arendse, 2010:9).

2.8.2 Money Exchange

Some developed countries, according to Arendse (2010:9), "implemented a practice of not paying out cash to those selling copper at scrap dealers. However, scrap dealers are told to pay individuals by means of a cheque instead of cash and some go as far as only making payment into a seller's bank account. The Second Hand Goods Act provides for a tag and hold program (seven day holding period) that is similar to that of developed countries; however, without consistent monitoring, this program lose its effectiveness".

2.8.3 Cable Protection

Developed countries like USA adopted the practice of microscopic signatures on cable and other developing countries are slowly following the suit. These microscopic signatures are also known as the nanotechnology. This is a costly practice with restricted application. Moreover, this type of practice is more of a reactive not proactive measure. These microscopic signatures only detect

damage that is done already. As it is always difficult to predict points that are likely to be targeted by cable thieves, developed and developing countries utilise alarms that are typical positioned on sensitive areas in order to inform them of suspected tempering. These are effective methods however, they do not come cheap and further pose challenges as they entail unforeseen factors. Some of the challenges posed by these engaged methods emanates those who control them, as in some cases it take time for the security force to respond (Arendse, 2010:9).

2.8.4 Alternative Lighting

Developing countries like South Africa have opted for installing high mast lighting at a cost of R150 000 per pole set in certain areas as opposed to conventional street lights as the former is more vandal proof (Arendse, 2010:9).

2.8.5 Legislation regarding countries affected by cable theft

Before looking at legislation governing cable theft in other countries, this study firstly examined what legislation is present in South Africa (SA) concerning combating of cable theft in railway stations. Nevertheless, the former Minister of Energy (MoE), Tina Joemat-Pettersson, engaged with the former Minister of Police, Nathi Mthethwa, and they came up with agreements that led to the amendments of the Second Hands Good Act (Act No. 6 of 2009). She further pointed out that this Act controlled the sale of copper from electrical cables (Finance News 24, 2015). Moreover, the legislation requires all scrap metal dealers engaged in recycling of any controlled metals to be registered as a recycler, and to be registered as a second hand goods dealer. In addition, the amended legislation made it compulsory for scrap metal merchants to request a copy of the seller's identity document (ID) and proof of address and an indication of where the scrap was found before they could purchase the cable (Finance News 24, 2015:n.p).

The ascendance of theft of copper cables forced a number of countries to enact legislations that strictly deal with this scourge. Moreover, some countries, if not all, found it necessary to amend the existing legislations. For instance, the Zimbabwean government under the headship of former president Robert Mugabe amended the existing legislation to punish those suspected of cable theft, and cannot produce convincing evidence that they did not commit the unlawful act of stealing cables. Among other things, these penalties involved sentencing offenders for the minimum period of 10 years in prison. Furthermore, any person who uses any electric current knowing it to have

been unlawfully abstracted or diverted somewhere shall be guilty of an offence and liable to a fine not exceeding five years or to both such fine and such imprisonment (Electricity Amendment Act, 2007).

The proposed Scrap Metal Dealers Act (Act 60 of 1968) in the United Kingdom would tighten controls on how freely metals such as copper can be traded. Cable theft in Britain is estimated to cost the British economy £1billion [R173.8 billion] a year. Therefore, in efforts to curb cable theft, many scrap metal dealers in the United Kingdom have signed up to voluntary measures as part of Operation Tornado - which has pushed for the requirement of photo Identity (ID) from someone selling cables. Other measures include halting cash-in-hand payments for trades. BTP Spokesperson, Glyn Hellam in relation to the abovementioned viewpoint, said, "In 2011, they had noted 2,627 railways related copper thefts but 2012 brought a massive decrease, with 1,284 being logged. Operation Tornado, is also decreasing cable theft in the north-east of England where the majority of thefts normally operates. In these areas, the BTP saw a 60-70% reduction of cable theft in railway stations" (Lee, 2013:n.p).

Most importantly, governments in developed countries have passed laws prohibiting certain transactions, like buying from someone who has been convicted of theft. When this law was legislated in Macon, USA, copper theft dropped by 42% as compared to previous years. South Bend, Indiana also passed successful legislation (copper theft showed steady decrease) that required scrap dealers to take thumb prints of all sellers (Arendse, 2010:10). He further insists that some developing countries, including Kenya, Zambia, Uganda, Sierra Leone and Tanzania, took further strategies in order to curb cable theft as it was seen as tremendously serious to their countries' survival. In these countries a ban was placed on all exports of scrap metal and this led to an estimate of 800 000 jobs that were lost in Kenya specifically and such moves reveal the seriousness of copper cable theft.

2.8.6 Specialist Units responding to Cable Thefts

Developing countries who are overwhelmed by metals thefts have established specialised metals theft units. These special units include those of: Dallas Police Metal Theft Unit, Fort Worth Police (Texas) Metal Theft Unit, Oregon Joint Metals Theft Task Force, Houston Police Metal Theft Unit and Phoenix Police (Arizona) Metals Theft Unit. In places where specialist units were established

there was a decrease in cable theft. The reason for this is that a focused approach almost always bears more success than a generalist approach. In comparison to other countries, the South African police disbanded the previous Copper Theft Unit that was established and currently there is no specialised approach to this plague other than through the efforts of the Non-Ferrous Metals Task Team that seek to find joint strategies to curb copper theft in SA (Arendse, 2010:10).

2.8.7 Awareness Campaigns on Cable Theft

Arendse (2010:10) stresses that it is of paramount importance that awareness campaigns that are effectively curbing cable theft are launched to ensure that all role players understand the impact imposed by cable theft in developed countries. A thoughtful call is indeed needed to circulate in all departments that are responsible to curb cable theft. This problem does not only affect these departments but communities as well need to be fully involved in protecting their infrastructure. To fight this crime, a collective method need to be practised by all spheres affected by this scourge.

Moreover, Arendse (2010:10) suggests that these awareness campaigns should be used to educate scrap metal dealers about how they should conduct their business without purchasing stolen copper cables. However, these forms of awareness drives require a concerted effort from all stakeholders. These stakeholders, among others include, Dealership Associations (DA) and law enforcement agencies. Lastly, their relationship should be able to assist in tracking transactions that are involved and curb dealers from purchasing copper cables without documented evidence of ownership. That will assist in terms of scrutinising dodgy obtainment of copper cables.

2.9. STRUCTURES OF CABLE THEFT PREVENTION IN SOUTH AFRICA

In response to the national problem of cable theft, the Non-Ferrous Crime Combating Committee (NFCCC) was formed and, in conjunction with provincial bodies, a strategy was developed for a sustainable reduction in cable theft. The NFCCC's strategy seeks to address the cable theft problem by including stakeholders, such as the Department of Trade and Industry, the South African Revenue Services, Eskom, Telkom, Metrorail, Business against Crime, the South African Police Service and the International Trade Administration Commission (Vosloo & Mhaule, 2016). Two new anti-theft measures have been implemented to curb thefts from steel towers. One solution is

to replace normal standard steel bolts with hydraulically installed swage bolts that can only be removed using a special hydraulic tool rather than a standard spanner.

Another solution currently under investigation is marking all steel tower members with the utility's name using a battery-operated punching machine. Another approach is painting steel members at the base of the tower with bituminous paint mixed with tile cement, which creates low-value tacky-painted steel. The steel would be more difficult to cut with a hacksaw and hard to clean, thereby reducing the price the steel would yield.

2.10. NATIONAL CRIME PREVENTION STRATEGY ON CABLE THEFT IN SOUTH AFRICA

The South African government developed the National Crime Prevention Strategy (NCPS). The NCPS is known as the baby of the Department of Justice and Constitutional Development, which was given birth to in 1996. This strategy was developed after an intensive research and analysis made after the observation of international experiences. Other stakeholders who made a great influence on implementing this strategy is both Business against Crime in South Africa (BACSA) and Non-Governmental Organisations (NGOs).

Most importantly, the NCPS is basically a new approach that the South African government want to utilise in fighting against crime (i.e. copper cable theft). The aim of this strategy is to shift from crime reactive process which is mostly practiced after the crime have already been committed to crime prevention process 'proactive' mostly aimed at inhibiting crime from occurring at all (South African government, 2017:n.p).

On the other hand, The NCPS has the following objectives:

- The establishment of a comprehensive policy framework which will enable government to address crime in a coordinated and focused manner which draws on the resources of all government agencies as well as civil society.

- The promotion of a shared understanding and common vision of how we, as a nation, are going to tackle crime. This vision should also inform and stimulate initiatives at provincial and local level.
- The development of a set of national programmes which serve to kick start and focus the efforts of various government departments in delivering quality service aimed at solving the problems leading to high crime levels.
- The maximisation of civil society's participation in mobilising and sustaining crime prevention initiatives.
- Creation of a dedicated and integrated crime prevention capacity which can conduct ongoing research and evaluation of departmental and public campaigns as well as facilitating effective crime prevention programmes at provincial and local level.

The NCPS is supported in the work of Nel and Van Wyk (2013:83) who proclaims that this strategy identifies the social and developmental reasons of prosecuting that are far beyond the sphere of the law enforcement (i.e. police force, courts and correctional services). These two authors highlight that this strategy as a structure is no longer in existence and its functions and responsibilities are now managed by various governmental departments.

2.11. THE USE OF TECHNOLOGY IN COMBATING CABLE THEFT

Technology alone to find a solution in combating cable theft in railway stations is not adequate, as crime is a socio-economic challenge and not a technical problem. Several organisations, including investigated alarm and surveillance systems. Following five years of intense research and development with various local utilities, an electronic theft monitoring solution was developed. In 2013, these organisations produced a full technical specification and invited all interested companies to bid on manufacturing, supplying and installing the specified system. The contract, valued at approximately $292,000 (R3 834 587, 80) was awarded to Phoenix Instruments, a South African company, to manufacture, supply and install the first 250 units. These units were used as a pilot to test the effectiveness of the system. Having been expanded to 278 units, the pilot was a success, and the installation of an additional 500 units is in progress.

Each electronic theft warning unit is powered by an on board battery supported by a solar panel and installed on towers considered to be high risk. The unit detects vibration caused by any activity, such as the steel tower bolts being loosened or the tower steel being cut by a hacksaw or grinder. The unit also now detects an acetylene torch flame, even during daylight. An alarm is sent by Global System for Mobile (GSM) communications to security control personnel in the data monitoring centre, who then despatch security teams to investigate the incident. The system has software that uses image processing to detect any movement near the tower or mask areas at times gives false alarm due to its reaction to any mobile object.

In a surprising and unexpected spin off, the system also detects the movement of birds near towers. It is now envisaged the system can be used to monitor bird collisions with power lines. The successful application of this feature will be reported in the near future. Although still in the early stages, the system provides other significant benefits. The first benefit is security personnel only need to be deployed to locations where suspected activities on the structure have been detected and confirmed, instead of the costly continuous patrol used previously. The second benefit is a reduction in the number of theft incidents from an average of 30 incidents annually between 2009 and 2013 to only 13 incidents in 2014. The third and foremost benefit is the system has reduced the risk of a tower collapse, as now most incidents of steel tower theft are discovered early enough to allow for repairs, hence preventing the devastating consequence of a total collapse.

Initially a problem was identified. The units were installed about 6m (20 ft) above ground level, which resulted in the units being visible to the public. Hence, incidents of the unit's solar panel were reported stolen. To prevent solar panel thefts, the units are now installed in closer proximity to the live conductors at 15m (49 ft) above ground level, and the first units installed were moved to the higher position (Vosloo & Mhaule, 2016:n.p).

2.12. SUMMARY

Cable theft is a growing issue for the railway industry and it seems it is likely to continue to be an issue as a result of a broader increase in metal theft. Cable theft is not a new problem for the rail industry and its continual prevalence has significant implications for the operation and economics of the railway.

CHAPTER THREE

THEORIES OF UNDERSTANDING CRIMINAL BEHAVIOUR: CABLE THEFT

3.1. INTRODUCTION

In an attempt to provide a suitable theoretical frameworks for understanding criminal behaviour associated with cable theft in Durban railway stations, the perceptions of PRASA security personnel were sought by the researcher, while guided by the Rational Choice Theory (RCT) and Routine Activities Theory (RAT) to comprehensively depict the probable reasons for the occurrence of this crime. This study also integrated the Partnership Crime Prevention Theory (PCPT) by Rosenbaum (2002) to understand what forces can be consolidated to combat the cable theft in Durban railway stations.

The main purpose of adopting these theoretical frameworks was to develop an understanding of criminal behaviour on cable theft by closely looking on the following elements:

> *"What could be the driving factors on the commission of cable theft in Durban railway stations? Exploring this crime, by assessing the associated daily disruptions on Durban railway stations, and further gain an understanding on the reported and unreported incidents of cable theft in Durban railway stations"*.

These theoretical frameworks entail the analytic tools for understanding this scourge holistically and they were used in this study in line with the responses of the selected participants forming part in the KIIs and FGDs to share their perceptions on current strategies to combat cable theft in the Durban railway stations.

This chapter further presents theoretical frameworks that interlink with this study to clearly specify the topic under investigation. This study submits that the theoretical frameworks help to provide a direction through which a research is to be viewed and allows academics to locate their research in larger theoretical traditions. For this study, the selection of these theories were developed during an analysis of related literature, as previous studies were consulted for triangulations. The use of a theoretical framework is to go beyond just capturing what happened, but to create an opportunity for analysis on a specific phenomenon. In connection to the research statement, Gibson (2016:n.p)

provides that the theoretical framework is the structure that can hold or support a theory of a research project. It introduces and describes the theory that explains why the research problem exists. It consists of concepts and, together with their definitions and reference to relevant scholarly literature, existing theory that is used in a research project.

In summation, this research study was conducted to have an in-depth understanding on the combating of cable theft in Durban railway stations. The theoretical frameworks as employed by the researcher were deemed relevant by the researcher, as they became a lens used to link the findings of this study to the significance of carrying out the study. Thus, this study explains the RCT, RAT and PCPT in a broader detail, while indicating their significance in relation to this study.

3.2. RATIONAL CHOICE THEORY (RCT)

In their work Lilly, Cullen and Ball (2011) assert that the point of view of Cornish and Clarke who developed RCT is that people are not 'empty vessels', when they approach a situation in which a crime might have been committed. Lilly *et al.* (2011) further argue that when offenders commit crime they are completely aware of the problems they might encounter. As they are aware of the problems, they firstly weigh up the punishment and benefit of the crime before they commit the crime.

The cable theft in Durban railway stations is highly influenced by necessity or choice. The most prevailing question on the researcher's mind is: *"Is crime (cable theft) the only choice that some people have in order to survive?"* In response to this question, Samenow (s.a) in Awake (2008:4) admits that *"I saw crime as being almost a normal, if not excusable, reaction to the grinding poverty, instability, and despair that pervaded [the criminals'] lives."* After extensive research, however, this author changed his mind to suggest that *"Criminals choose to commit crimes".* He concluded, *"Crime . . . is 'caused' by the way [the person] thinks, not by his environment; behaviour is largely a product of thinking. Everything we do is preceded, accompanied, and followed by thinking. As rather, than regard criminals as victims, he came to the conclusion that "they were victimizers who had freely chosen their way of life."*

The key word in RCT is 'chosen'. In fact, a notable headline in a British newspaper stated *that "Crime is Career of Choice for Young Urban Men Aspiring to Better Things."* Humans have free will and can choose the course they want to take, even under difficult circumstances. To be sure, millions struggle daily against social injustice and poverty, or they may live in dysfunctional families, but they do not become felons. "Criminals cause crime," says Somehow (s.a) in Awake (2008:4), "not bad neighbourhoods, inadequate parents . . . or unemployment. Crime resides within the minds of human beings and is not caused by social conditions."

Consequently, there are many theories about what causes people to begin to commit crime, continue to commit crime, and desist from committing crimes (Kubrin, Stucky, & Krohn, 2009). However, some of these theories assert that crime is due to a collection of personality traits that incline a person to commit crimes (Wilson & Herrnstein, 1985); some scholars argue that crime occurs when people are led by their culture to want something, such as monetary success, but are denied access to the means to achieve these things (Agnew, 1992); and still others claim that crime occurs when people get socialised into cultures, subcultures, or groups that either actively promote or at least openly tolerate criminal behaviour (Nisbett & Cohen, 1996).

The RCT provides that crime is due to people making choices to commit crimes (Nagin, 2007). If this is the case, why do some people commit crime? In other words, on what basis is the choice made to commit crime? The answer is that, in deciding whether to commit crime, people are guided by their consideration of the costs and benefits of criminal behaviour. Supporting this viewpoint, more recent economics-based theories portray them as rational decision makers who base their decisions to commit crimes on an analysis of the risks of the venture compared with the expected profits. That is, the criminal does a cost-benefit analysis (Becker, 1968 in Geason & Wilson, 1988).

There are costs and benefits to be weighed for criminal conduct. The decision to commit crime is based on a rational weighing of costs and benefits of that crime. Therefore, in relation to the research study, cable thieves make a decision by planning and carrying out cable theft by weighing the means and benefits, and making a decision to violate the law despite the punishment if caught. The RCT implies that criminals are rational in their decision-making and, despite the

consequences, that the benefits of committing the crime outweigh the punishment (Bond, 2015:n.p).

3.2.1 Costs of Crime

In this regard, the RCT is used to analyse the cable theft phenomenon in Durban railway stations. However, the contributory factors and the nature of cable theft are considered to make a judgement in relation to the theoretical framework phase. This research study argues that cable thieves consider the following questions when evaluating the potential cost of cable theft:

- **Certainty of formal sanctions:** Cable thieves consider chances of being caught by the police or someone in authority before committing cable theft.
- **Severity of formal sanctions:** If they were caught by the police or PRASA security officials, would they go to jail?
- **Informal severity of punishment:** If they are caught, for how long would they serve jail sentence?
- **How much does the copper cable cost in the market?** The driving factor to the escalation of copper cable theft in railway stations is the price increase in the market. The value of copper in the market is forecasted to hit $8,000 [R 139641, 36] per ton. Therefore, the increase of the copper price in the market led to an increase in copper cable theft (Metal Bulletin, 2018:n.p).

  In summation, this element of the RCT is rooted in the view that the commission of cable theft results from calculating the punishment human beings (criminals) could get when committing a certain crime. In the context of this study, the criminals of cable theft look further from the ineffective penalties they could get when being caught and to what they could get away with from stealing copper cables in terms of monetary values.

3.2.2 Benefits of Crime

“Before deciding to commit crime, the reasoning criminal evaluates the risk of apprehension, the potential value or benefit of the criminal enterprise, his or her ability to succeed, and the need for criminal gain” (Siegel, 2011 in Mmitsi, 2017:46).

- After marketing the cable, how much on a monetary basis will I get?

In this regard, cable thieves weigh up the benefit of committing the crime. However, they commit the crime knowing precisely what would be the benefit of the crime.

- Would their self-worth increase after they have exchanged the cable with the buyer?

The concern lies on this element. Since scrap metal dealers are the very first target, cable thieves believe that after the process has been finalised their lives would never be the same again.

- Will this mean their lives will never be the same again?

This theory contends that law-abiding behaviour is the product of careful thought and planning. Cable criminals hope to change their standard of living through practising cable theft. The value of the copper is the determining factor.

- Money is power, so why not commit the crime?

The value of copper cables in the market is so high. Therefore, it is a contributing factor in committing crime as the reward will be of monetary value.

The position of RCT is that criminal behaviour is chosen intentionally (i.e. they are not compelled or forced to do crime), and the reason that they choose to commit crime is that they think it will be more rewarding and less costly for them (Criminal Justice, [s.a]:n.p). Furthermore, cable thieves know very well the value that the copper has in the market and so they calculate the benefit and the cost of committing crime. This research study argues that cable thieves are driven by the value of the copper; all in all they have taken the decision themselves to commit cable theft in Durban railway stations.

The focus of this study is on understanding the combating of cable theft in Durban railway stations. Therefore, the RCT fits very well in this study because it creates an understanding of why cable theft offenders take such a high risk of stealing live electric cables. This also creates a clear view of whether they consider the consequences they may encounter when caught committing cable theft. In support of this theory, Mvelase (Acting Telkom Executive (s.a) in Arensde (2010) argues that cable theft is a “victimless” crime, referring to the slow rate of convictions and the high rate of repeat offenders. Therefore, it is clear that the type of sentences handed down in South Africa for crimes such as cable theft are no deterrent for such crimes to be committed. He further mentions

that “only a very small percentage of people who steal copper are caught and this in turn leads to continued copper theft, only a small percentage of those caught are actually successfully convicted and those convicted are usually placed on probation and serve no jail time or get fined and serve little jail time.”

The revealed media reports make it clear that cable thieves from selling these cables they make huge money, as the price for copper is increasing, so they weigh up the cost and the benefit of committing this crime. The consulted literature further supports that cable theft is a market-driven crime and there is little doubt that copper cable theft is a growing problem in South Africa, particularly for the electricity, telecommunications, and railway parastatals, such as Eskom, Telkom, Transnet and PRASA (Torkelson, 2010). Furthermore, the consistently high price of copper makes it a valuable commodity for illicit business. Thieves are sophisticated market analysts who decide when the price of copper has risen to a point where the theft of this particular commodity (weighed against the risk) is more financially rewarding than any other. Copper is widely available, poorly secured and easy to steal due to the extensive transportation, power and communications networks of Transnet, Eskom and Telkom. It is also extremely easy to sell, due to the eagerness of scrap dealers looking to profit from the global price increase. In addition, the media reports hardly reveals sentencing or convictions of cable criminals. From that point, this research study can argue that there is a possibility of punishment being light in that cases related to cable theft are not taken seriously.

In summation, the reasons for this jumble of interpretations of cable theft lies in the fact that human beings (criminals), unlike inanimate objects, think for themselves. It remains difficult to predict a decision a person can make when confronted with a choice. This study suggests that criminals choose to commit cable theft for reasons that satisfy them. It is more difficult to try to predict very complicated human behaviours, such as criminal acts (cable theft). Therefore, the criminals of cable theft have a free will (choice), which they use to elect to engage in criminal or non-criminal behaviour. This is fuelled with gains estimated to be greater than the anticipated losses and ineffective penalties to address reactions to cable theft.

3.3. ROUTINE ACTIVITIES THEORY (RAT)

A variation of classical theory holds that both the motivation to commit crime and the supply of offenders is constant. Lilly *et al*. (2011:329) points out that RAT stresses that even if offenders desire to commit crimes, they cannot do so unless the opportunity to break the law is present. This theory believes that crime is not reduced but rather repositioned to another target or a place. In short, RAT requires three elements to be present for a crime to occur: a motivated offender with criminal intentions and the ability to act on these inclinations, a suitable victim or target, and the absence of a capable guardian who can prevent the crime from happening. Therefore, these three elements must converge in time and space for a crime to occur (Ministry of Children and Youth Services, 2016:n.p).

Most importantly, this crime is therefore normal and is dependent on available opportunities to offend. If there is an unprotected target and there are sufficient rewards, a motivated offender will commit a crime and there will always be a certain number of people motivated by greed, lust, and other forces who are inclined towards law-breaking. This theory means that PRASA, as an organisation of repetitive cable theft activities, creates opportunities for the theft of cables to occur. However, these opportunities can make crime easy and low risk, or difficult and risky as opportunities differ over time. Therefore, this theory thoroughly examines the different opportunity structures that facilitate the cable theft in Durban railway stations, looking closer at the current prevention strategies that can adjust these opportunity structures to stop criminal activities.

This theory fits very well with this study as it refers back to the research questions of this study under investigation. Therefore, the contributing factors to cable theft and existing challenges are believed to have been highlighted by the three (3) elements of this theoretical framework. The literature included supports the study by emphasising what could be the cause of this crime and what is escalating it. However, the strategies that can be employed to eradicate cable theft can be drawn from this theory as it highlights the loopholes existing in rail industry as the victim of cable theft. Thus, the determining factor, particularly in a predatory crime, such as those involving theft (cable theft), are the activities of potential victims. In the sections below the three (3) important elements that influence cable theft in Durban railway stations are discussed.

3.3.1 The availability of a suitable target, such as the Passenger Rail Agency of South Africa and individuals

The suitable target is a person or property that may be threatened by an offender. Felson prefers the term 'target' to 'victim' as the former highlights the fact that the majority of crimes are aimed at obtaining goods, and therefore the 'victim' may be absent from the place of the crime (Felson & Clarke, 1998 in Miro, [s.a]:n.p). In terms of suitable targets, the choice is influenced by the offender's perception of the target's vulnerability; the more suitable and accessible the target, the more likely that a crime will occur. The number of motivated criminals in the population also affects crime levels. Furthermore, it is held that offenders are less likely to commit crimes if they can achieve personal goals through legitimate means. This implies that criminal motivations can be reduced if offenders perceive that there are alternatives to crime (Ministry of Children and Youth Services, 2016:n.p).

The rail industry is seen as a suitable target in this regard as cables that thieves target are found on the rail lines. They know precisely the weaknesses and strengths of the rail industry. However, PRASA as the target has qualities of being the victim since the cables at railway stations have got the value and the weight in the market. They are physically visible to the cable thieves and the access is just a walk in the park for the cable thieves; there is no structure that forces them to think otherwise, if there is, surely it is not strong enough if there are loopholes within the preventing structure.

3.3.2 The absence of a capable guardian, such as the Passenger Rail Agency of South Africa investigators and security personnel

The principal interest of guardians is the protection of their potential targets. Managers supervise and monitor specific places (Eck, 1994). Therefore, the absence of cable guardians leads criminals to commit the desired crime. However, if guardianship is absent there is likely a high percentage of the crime will happen. In this regard, guardianship can be the physical presence of PRASA security officials (i.e. cable theft railway patrollers, private security companies employed by the organisation to assist the cable railway patrollers) who are able to act in a protective manner, or in the form of more passive mechanical devices such as video surveillance or security systems. Once the guardians are absent or ineffective, the crime is likely to happen.

This theory emphasises that the contributing factors to cable theft in Durban railway stations are made effective by the absence of a capable guardian which can be the other structure or additional structure to work collectively with second hand goods dealers in eradicating the cable theft in railway stations. Overall, the absence of capable guardians and the motivated offender are the main contributing factor for the occurrence of cable theft in the Durban railway stations. In support of the above discussion, these physical security measures help limit an offender's access to suitable targets. The essential aspect of routine activities theory is the interaction of motivation, opportunity and targets. In this way, the presence of guardians will deter most unlawful action, rendering even attractive targets off limits. Therefore, the presence of opportunity coupled with a lack of guardianship increases criminal motivation and the likelihood of an offence taking place (Ministry of Children and Youth Services, 2016:n.p).

Lack of security and monitoring in railway stations at night and during the day serves to be the means for cable theft offenders to commit crime. The literature supports this discussion by also highlighting that lack of guardianship is also caused by indirect facilities that include scrap metal dealers who do not adhere to the rules and regulations of the Act. Scrap yards pay for copper and other precious metals without asking questions about where the material came from (Arendse, 2010:8). The literature again supports that the lack of official police powers under Second Hand Goods Act [Act No.6 of 2009] also adds pressure. The powers of the police on the Act are not enough to stop channelling of stolen goods through the industry. Therefore, to stop it requires a more comprehensive approach, which should include additions to legislation. An example to be made here is that the law should state that used goods dealers should be obligated to check with police if goods are stolen or not (Pretorius, 2012).

3.3.3 The presence of motivation for offenders, such as available lucrative market of cables (Copper)

The likely offender may be anyone with a motive to commit a crime and with the capacity to do so (Felson & Cohen, 1980 in Miro, [s.a]:n.p). In relation to the cable theft, the offenders are cable thieves who physically have got the purpose and capacities to potentially commit cable theft in Durban railway stations. The motive can be the absence of capable guardians and the easy access

to vandalise the victim's property. Furthermore, the literature has highlighted that the offender is motivated by the value that cable railways have on the market. However, the revealed sources highlights that physical factors made it possible for cable thieves to commit the crime.

Agri Wes-Cape (s.a) in Arendse (2010:3) found that "as the price of copper increases so does the theft of copper cable and this was partly corroborated when the copperheads found a notice outside a Cape Town bucket shop (illegal scrap yard) mentioning that the price they pay for copper fluctuates as the international copper price changes, so copper reaching international highs of over $8000 (R100328, 32) per ton, it creates a serious motivation for cable thieves and dealers alike". The rise in the price of copper eventually motivates the offender to commit more crimes.

3.4. PARTNERSHIP CRIME PREVENTION THEORY (PCPT)

Rosenbaum (2002) in Mmitsi (2017:41) advocates that 'partnerships' represent a unique hybrid organism in the world of social interventions. Beyond the difficulty of defining these entities is the problem of adequately conceptualising them for the benefit of advancing theory, measurement, evaluation, and knowledge utilisation. Before laying out various configurations, the author offered a few words about the theoretical basis for the hypotheses regarding the effectiveness of partnerships in crime prevention. In essence, *'Why should partnerships work and work better than other approaches?'* This author went on to submit that this 'partnership' model is based on several key assumptions and postulates the following (Durban railway stations are no exception to the suggested problems herewith):

- Cable theft is complex and deeply rooted, requiring complex, innovative, and comprehensive solutions;
- Partnerships are better suited than individual agencies to identify and accurately define the target problems of greatest concern in a given area of focus;
- Partnerships are better suited to developing creative targeted interventions because they include a diverse group of individuals representing a diverse group of organisations with different philosophies of intervention;

- Multiple interventions are more effective than single interventions and multiple interventions hold the potential of increasing the total quantity (dosage) and quality of the "treatment";

- Applying similar reasoning, multiple agencies are more effective than single agencies. Representing different organisational cultures and services, partnership members bring more "new" ideas and resources to the problem-solving arena;

- The interventions that emanate from different domains - PRASA security personnel, SAPS, scrap metal dealers, institutions who also experience cable theft, such as Transnet, ESKOM, Mobile Telephone Network (MTN) and Vodacom, not forgetting the government as a stakeholder – will maximise the total impact on the target audience. Multiple interventions by multiple agencies create the opportunity for the target group to be exposed to more than one intervention and thus experience cumulative effects; and

- The exposure to different strategic mechanisms at different levels of intervention may yield new synergistic effects. That is, new effects can be created from the combination of two or more interventions - interventions that produced no effects or different effects singularly (Rosenbaum, 2002 in Mmitsi, 2017:42)

Ultimately, these assumptions and postulates offer some clues about the mechanisms or processes by which change is expected to occur. In summation, several avenues are hypothesised for partnerships to outperform single-agency approaches on combating cable theft in railway stations: First, by "putting heads together" a partnership may result in new, innovative approaches that would not have been conceived without the "collision" and synthesis of diverse perspectives. Second, the application of resources from multiple agencies may increase the quantity or "dosage" of the intervention. Third, partnerships may lead to the coordinated application of resources in a manner that changes the nature or quality of the interventions and their effects.

The presence of such synergistic effects would serve to demonstrate that "the whole is greater than the sum of the parts". Of course, the mere presence of a partnership or coalition does not guarantee these effects. Additionally, we must assume that the partnership is functioning like a "well-oiled" machine and that it can guarantee strong implementation. Often these additional assumptions do not hold up against reality. Consequently, some key factors that facilitate or inhibit the functioning of such groups will be reviewed later. In the meantime, if the above assumptions are valid, then

partnerships can be expected not only to reduce cable theft in the Durban railway stations, but also to serve a number of other functions as well. Partnerships, in theory, are expected to achieve the following:

- Increase organisational accountability;
- Reduce fragmentation and duplication of services;
- Build public-private linkages;
- Increase public awareness of (and participation in) anti-crime initiatives; and
- Permanently alter the way agencies "do business" by giving more attention to strategic planning, data-driven decision making, combating, and interagency cooperation (Rosenbaum, 2002 in Mmitsi, 2017:43).

The theory in question fits very well with this study, as it can be linked with the consulted literature of this study, as well as the presented findings. Thus, cable theft in Durban railway stations can be combated through a joint operation that can include different role players, which, among others include PRASA security personnel as a primary role player, SAPS, scrap metal dealers, institutions affected by cable theft, and the government. Through this collaboration, cable theft can be combated effectively in Durban railway stations.

3.5. SUMMARY

This chapter focused on theories that guided this study to explain the factors to be taken into consideration in combating cable theft in Durban railway stations. Furthermore, RCT and RAT were utilised by the researcher in explaining the nature of cable theft in Durban railway stations. RCT utters that the offender, before committing the crime, weighs up the gains and the cost that will come along with committing the crime, while the RAT articulates that, for the crime to occur, a potential offender with the capacity to commit a crime must be present, secondly, a suitable target or victim must be available, and, lastly, the absence of guardians capable of protecting targets and victims must be present. In addition, literature was reviewed regarding cable theft in railway

stations and an understanding of the contributing factors to cable theft were provided. This chapter further presented the challenges and other means of overcoming such challenges regarding cable theft. PCPT also formed part of this section to understand this crime. The roles of PRASA security personnel and other relevant stakeholders in terms of combating cable theft in railway stations were highlighted to create successful partnerships in combating this scourge. Therefore, this study has been explained theoretically by using these theories and they have supported highlighted sections in the literature review chapter. In this way, the participants might constantly differ in their thoughts and feelings towards a subject and hence the researcher saw it important to collect data using KIIs, FGDs and observed incidents in relation to the nature of cable theft in Durban railway stations to gather thoughts, views and interpretations from different participants.

CHAPTER FOUR

THE PRESENTATION, ANALYSIS AND DISCUSSION

4.1. INTRODUCTION

This chapter presents the analysis and discussion of study findings. The data collection period dated February 2018 by means of KIIs and FGDs with PRASA security personnel, and observations were also undertaken on cable theft incidents that occurred in different Durban railway stations area. This study was done to solicit, from the selected officials, different perspectives on the combating of cable theft in Durban railway stations. The referencing method for the conducted interviews in this study comprised of FGDs and KIIs. The former was used to interview cable theft railway patrollers and the latter was used to interview cable theft investigators. The Interview Schedule Guide used in this study is presented and discussed in the next section.

4.2. QUESTION 1: WHAT IS THE NATURE OF CABLE THEFT IN DURBAN RAILWAY STATIONS? (Please elaborate on your answer)

The summation of the selected participants' responses on the nature of this scourge in Durban railway stations reveals differed views. To accomplish this objective, the researcher commenced the interviews by asking these participants to provide their views on the nature of cable theft in Durban railway stations, they were further asked to elaborate on their provided responses. This question was sought to investigate the crime of cable theft in Durban railway stations holistically by mainly focusing on this practice. This question was designed to determine the effects of cable theft in Durban railway stations. The selected participants showed that their investigation process indicated different types of cables being stolen, which, among others, included overhead cables, signal cables, track boxes and rail clips. It was also confirmed that the effects that this crime have on rail industry cannot be underestimated as this crime does not only have a negative effect on the PRASA, but commuters also find themselves on the wrong end, as the trains they use as means of transport to and from work remains motionless.

The responses provided by these participants in this study show that cable theft still exists in all Durban railway stations and it is really a huge problem.

One of the participants illustrated that to specify that cable theft is high in Durban railway stations, due to value copper has in the market, cable theft is high in nature as people are motivated by the money they make in selling copper cables. In providing an example, this participants mentions that "when a cable is stolen on railway stations, it shuts down the rail service". This participant went on to provide clarity on different types of cables that were stolen by the criminals in Durban railway stations. The following cables were listed:

- Overhead cables,
- Signals, and
- Track Box.

Cable theft in railway stations does only have negative impact on the side of PRASA in terms of making profit. It was also highlighted that there is a lot of negative effect on both signal personnel and commuters. On the part of the former, these negative effects include, among others, they cannot give concise signals to the commuters. On the part of the latter, these negative effects include train delays and train derailments which could lead to fatal accidents.

During the **FGDs - Cable Theft Railway Patroller (Patroller No. 1) had** this to say:

"The nature of cable theft affects the company as a whole by losing Billions of rands, cable theft leads to stoppage of rail services and when this happens passengers get delays to work and it also cause train derailment. Passengers also set trains with fire from frustrations of cable theft, the passengers destroy rail properties and assaulting workers and passengers end up not in the process of paying train tickets."

This comment led to further discussions on this matter by other FGDs members, who cautiously shared support for this view on the nature of cable theft in railway stations. These members agreed that cable theft is upsetting for both PRASA and commuters. These participants perceived this crime to be escalating at a larger scale, while disrupting indispensable rail services. They further shared that cable theft in nature is frustrating to respond to and it is currently becoming a real life problem for the rail industry as commuters see themselves having to change their means of their daily transportation, especially in the morning and afternoon. In addition, many commuters do not arrive on time at their respective jobs, and student commuters also arrive late at school and some

of them end up losing their lives in the process as train derailments can be caused at times and head-on collisions can be experienced. Moreover, these participants believe that there is also no valid information circulating amongst them to curb this crime effectively as it happens almost daily. They concluded that cable theft cannot be totally curbed, owing to the high amounts of money associated with it (i.e. high market value of copper).

In a positive light, the **FGD - Cable Theft Railway Patroller (Patroller No. 2)** further made the following comment:

"Cable theft is well planned by the offenders. The operation does not just happen, they plan it thoroughly. In Durban we mostly deal with petty crime criminals who do not steal much of the meter cables but in some areas you could spot on that the operation was planned before it occurred. Cable theft is really a big problem for this department".

The above-stated comment illustrate that these cable thieves have certain expertise as it was revealed by Pretorius (2012) in chapter two that these people possess the necessary knowledge of which cables to target. These criminals do not act haphazardly as they know risks entailed by their notorious activities. Moreover, the assistance they get from some insiders help them to target certain points at certain times. Hence, patrollers or other security personnels find out about cable theft after it has occurred. This is further exacerbated by the lack of technology that would assist security personnels to be proactive instead of being reactive. As long as that absence of the presence of these needed nanotechnology exists cable theft will persist.

4.3. QUESTION 2: WHAT ARE THE CONTRIBUTORY FACTORS TO CABLE THEFT IN DURBAN RAILWAY STATIONS?

The Durban railway stations are currently experiencing cable theft and the prevailing common scenarios of cable theft according to the selected participants involves the following:

- Overhead cables,
- Track box cables, and
- Railway stations cables.

This study found out that some of the contributory factors to cable theft in Durban railway stations include the following (the list is inexhaustible):

- **Shortage of manpower:** There are few investigators who are employed with full knowledge of the science of security. There should be trainings conducted with the existing security personnel and PRASA need to employ more investigators and patrollers so that they can be able to cover the whole area that is being vandalised.
- **Lack of proper protection:** The fencing is so poorly structured that it enables cables to be stolen very easily. The fencing is designed in such a way that cable thieves have easy access to come and steal the cables.
- **Lack of reporting structures within the department:** The police are not easily accessible to receive, or deal with, cable theft cases; thus, cable theft cases end up not being reported to the police. The security department of PRASA does not have enough resources to take the cable theft cases forward. Even the patrollers have to forward criminals to the police and that, too, is not easy due to lack of communication between the management and the patrollers as the latter cannot take decision on behalf of the management.

The selected participants believe that cable theft in Durban railway stations is caused by the factors below:

They shared consensus that the use of recreational drugs such as Whooga and Nyaope remains a contributory factor to cable theft in this area. They emphasised that when drugs are used by these thieves, they usually get the courage to steal even a two-metre cable because they know they will sell it and get the money to buy their drugs (i.e. to feed their daily habit). They are just stealing to get money to buy their drugs (i.e. drug dependence). They further stated that unemployment is another contributing factor because in most cases the criminals are below 30-years and some of them are dropouts from school so they are young adults.

Other reasons given by these participants, in relation to 'why copper cables are stolen in the Durban railway stations' were demarcated as follows (i.e. not in order of importance):

- **Scrap metal dealers who buy stolen cables from non-authorised associates:** These criminals do not steal without knowing who the buyer of the cables will be. They are connected with scrap metal dealers.
- **Value of the copper in the market:** The higher the value of the copper in the market means more cables will be stolen.
- **Taxi drivers:** They also contribute to cable theft as it is the competition occurring between trains and taxis, so they also hire people to come and block the railways and also steal cables.
- **Light sentences:** The arrested offenders keep on getting light sentences or they get arrested today the following day they are found roaming the streets. The criminals who get a sentence they will be sentenced only for a few months. However, the law does not understand what impact this crime has on the rail industry once these cables are stolen.

In conclusion, the **FGD - Cable Theft Railway Patroller (Patroller No.3)** produced the following comment regarding the contributory factors to this scourge:

"These contributing factors are really a problem because once there is disruption to railway stations or just one meter of a cable could cause the stand still of a total operational area, blocking whole sectors for long periods. However, this is also a cost for the company because over time need to be paid to technicians and the company will also loose the customers as they are the priority for the company" [**FGD** - Cable Theft Railway Patroller No. 3].

4.4. QUESTION 3: WHAT ARE THE CURRENT STRATEGIES EMPLOYED BY PRASA IN COMBATING CABLE THEFT IN DURBAN RAILWAY STATIONS? (Please elaborate on your answer)

The selected participants stressed that there are strategies employed to combat cable theft in Durban railway stations currently; however, they could not be described as methods that can effectively eradicate this crime. Therefore, new strategies need to be introduced and the existing ones need to be strengthened.

One of the Key informants described such strategies as follows:

"Yes, amongst others a combined effort is required to fast track the eradication of cable theft in Durban railway stations. This could be done through blocking the price increase of copper in the

market and the increase in cable theft by forming an active force that will maintain security on the rail network. The force that we have, include, scrap metal dealers and local law enforcement team" [**KII** - Cable theft investigator No.1].

The following Key Informant went on to reveal more about the mechanisms they use to combat cable theft in Durban railway stations:

"*There are members employed by PRASA called Cable Unit and their duty is to foot patrol the rail ways and do hourly observations and also visit scrap metal dealers without notifying them. Another strategy used is that of the team handled by SAPS called Non-Ferrous Metal, this team discuss the issues of cable theft and make operation plans to combat cable theft in rail industry"* **[KII** - Cable theft investigator No.2].

The selected cable theft railway patroller shared the following in terms of the current strategies employed by PRASA in combating this crime in Durban:

"Yes, there are current strategies employed by PRASA in combating cable theft, we are only a team of 6 cable theft railway patrollers. Each shift consist of 3 patrollers and we have a responsibility of guarding as from Durban station to Rossburgh station and this demarcation is so big that it can be only watched over by only 3 people. We do foot patrols on railways and sometimes we do not wear the uniform so that we cannot be noticed by cable criminals and this strategy is kind of helping us and the company also employ private security companies to patrol and we monitor these companies" [**FGD** - Cable Theft Railway Patroller No.1].

"What we also do currently, is to cover the cables with concrete slabs. The cables are placed into deep (Umsele) hole and then the concrete will follow to cover up. The purpose of doing so, is to consume time for the cable thieves when they perform their duties. They will first have to break the slab and dig further. This strategy is working at the moment and we want to cover all the cables in the railway stations" [**FGD** - Cable Theft Railway Patroller No. 2].

The other participant positively concluded by saying:

"*The other strategy we use is to wear invisible clothes and hide in the long grass that is along the railway stations. The other group would hide on the other side and the other group would also hide on the other during the day and more especially at night. When we are doing this strategy we*

do not move from the targeted point and we would hide like soldiers with our weapons to protect ourselves" **[FGD** - Cable Theft Railway Patroller No.3].

4.5. QUESTION 4: WHAT ARE THE EXISTING CHALLENGES FACED BY PRASA IN COMBATING CABLE THEFT IN DURBAN RAILWAY STATIONS?

The above question was asked to the selected participants and one of the selected participants provided the following response:

"*I have been serving this department for more than 10 years as a cable theft investigator, through the years I have served, I can tell you that the challenge we have in combating cable theft is not having enough 'manpower' in mitigating this crime happening in railway stations and the other one is a scrap metal dealers who do not adhere to scrap metal dealers rules and regulations because they get attempted by the copper cables sold to them by these cable criminals and that is also maximising the issue of cable theft"* **[KII** - Cable theft investigator No.1].

To this course, PRASA is currently faced with the following two serious challenges, among others (in order of importance). The **FGD -** Cable Theft Railway Patroller No.4 shared the following in relation to the existing serious challenges faced by PRASA in combating this crime in Durban railway stations:

- **Lack of resources:** The participant indicated that the resources available met few of their needs. Participants further made a clear point that they have a challenge of service lines that are not well structured to accommodate the company vehicles they drive. He further stated that the criminals would run so fast and in that case it is not easy to shoot the criminal because shooting itself will cause them to have a criminal case of shooting. Therefore, in that case patrolling by foot and having to chase the criminals is the only way. This contributes to the frustration that railway patrollers experience with their limited resources. Communication by telephone with the management or with other railway patrollers in the other area is a significant problem, because there is only one cell phone line they use as patrollers and sometimes they have to use their own money to buy airtime.
- **No new approaches introduced in relation to combat cable theft in railway stations:** Most of the cable theft investigators and railway patrollers are African individuals who have been

working at PRASA for more than ten years, and are not well disposed to learning new practices in fighting against cable theft [**FGD -** Cable Theft Railway Patroller No.4].

"The challenge we face is that of the committed manpower because the company at other stations has employed private security companies but still the cables gets stolen in the presence of these private security personnel because they do not do their job very well and the SAPS response to cable theft is also a serious challenge for us as they are not committed in helping us reduce this crime. There is poor communication between us and SAPS and in most cases they do not get involved in combating cable theft. Frequently, they get to the crime scene four to five hours after it has been reported" [**FGD -** Cable Theft Railway Patroller No.5].

The researcher observed that due to a variety of challenges that arose from the participants, such as shortage of manpower, a lack of updated knowledge, low self-confidence and inadequate training, impede the performance of the security personnel in effectively reacting to incidents of cable theft in the Durban railway stations.

These participants were all of the view that a variety of capacity challenges hindered the performance of the security personnel and the way they respond showed that the following were being experienced as challenges in this department (not in order of importance):

- Huge workload;
- Poor investigation of cable theft cases;
- Recruitment, skills development, and advanced training;
- Lack of resources; and
- The security personnel of PRASA act in isolation (i.e. without other effective stakeholders, such as SAPS) in combating cable theft.

The following participants shared their perceptions on the existing challenges in combating cable theft in Durban railway stations:

"…Security personnel of PRASA protection services is understaffed and its members feel as if their workloads are too heavy and their time is spread too thinly. The truth is few are educated in within the department, and then their skills are questioned. The department is not recruiting experienced

and educated investigators on the service to improve the quality of their investigation on continuous basis" **[KII** - Cable theft investigators No.2].

"...more resources need to be introduced within the department; mentorship programmes by PRASA management should also be introduced at all costs. They should change the format they are currently using by introducing benefits, recruiting suitable candidates to lessen the pressure (workload) and pay them better" **[FGD** - Cable theft Railway Patroller No.6].

This participant further explained that cable theft also leads to train controllers being beaten by commuters, as there is lack of communication between the train operators and train drivers. Moreover, the participant stressed that if the communication panel was doing its job thoroughly, the commuters would have got the information regarding what is happening with the trains **[FGD - Cable theft Railway Patroller No.6].**

4.6. QUESTION 5: WHAT IS THE *MODUS OPERANDI* USED BY CABLE THIEVES IN DURBAN RAILWAY STATIONS?

The selected participants had this to reveal collectively in this regard: The cable criminals first look the chances of being caught before stealing the cable. Some of the responses further stated that these criminals know the changing shifts of railway patrollers.

In support of the above submission, one of the participants said the following:

"Firstly they monitor us on daily basis, they just know which vehicles we use and they first see where we are before they operate the crime. They have more information through operations and we can't even change vehicles" **[KII** - Cable theft investigator No.1].

In addition, all the participants mentioned that the criminals know exactly what they are going to need during the process of stealing; as a result, they prepare themselves prior to the operation taking place. Therefore, when doing their job, they use the following excavating tools:

- **Hammer:** This tool is used to break the concrete slabs into smaller pieces so that it can be easy to use the other tools. Thereafter, the pickaxe is used and the shovels to curry on with the target task.
- **Pickaxe:** Criminals use this excavating tool to break down the concrete used to cover the underground cables. Covering the cables with concrete was one of the strategies used in

combating cable theft but that does not seem to effectively eradicate the theft of cables because the cable thieves use this tool to dig up the deep cables.

- **Hoe and shovel:** Cable criminals use this tool to take out the pieces of the concrete slabs and the soil inside the farrow.
- **Sharp knife and plyers:** Criminals use this tool to cut the plastic cable cover. After the copper has been exposed, they use a very sharp plyers or an axe that has wood on the handling area to prevent the electricity from coming through their hands.
- **Metal saw:** To steal the overhead cables they use a metal saw attached to a wooden pole that has been dried out. Consequently, railway patrollers would find dried wooden poles on the crime scene and they cannot even take finger prints left on the wood because some of the thieves do not even have identity documents as mostly it is not people from South Africa who commit this type of a crime. These criminals have ways of noting the effects these live cables can cause.

The participants stressed that these criminals are not professionals because here in Durban they do not deal with syndicates. It is only the petty crime criminals who are giving them headaches and they do not steal much. They start from 1 metre of copper cable to 100 metres.

These participants shared a common view sharing that these thieves were previous employees (i.e. contractors) who had become part of the subsistence criminals but in most cases here in Durban they deal with subsistence thieves who steal a couple of metres of cable at a time. These former contractors were knowledgeable about the exposed cables and they knew exactly how the system works and where the cables were most vulnerable.

4.7. QUESTION 6: IS CURRENT LEGISLATION ADEQUATE TO ASSIST PRASA IN COMBATING CABLE THEFT IN DURBAN RAILWAY STATIONS? (Please elaborate on your answer)

This was one of the question posed to the selected participants. This is what they highlighted.

These participants were of the common view that the legislative framework does not contribute to fighting against crime related to cable theft in Durban railway stations. They emphasised more

especially the Scrap Metal Dealers Act (Act No. 10 of 2013) that it needs to be strengthened in order for cable theft to be eradicated in railway stations.

To this end, one of the participants shared the following views regarding the legislative framework in combating cable theft in railway stations:

"Here in the city centre on Durban, there are more than fifty legal 'Scrap Metal Dealers' but maybe ten of them comply with the rules and regulations of their Act. The criminals steal knowing exactly where they are going to sell the cables to. In this regard, the Scrap Metal Dealers are reliable for the channel. Since they are the first group to think of on where can you sell the cables, I therefore think they are the ones who are responsible to alleviate the cable theft in railway stations but unfortunately that is not the case, they would buy the stolen cables the minute they are presented to them" **[KII** - Cable theft investigator No.1].

Another participant added the following comment:

"Looking again exactly to the scrap yards, I do not believe that SAPS members do visit scrap yards because according to my perception, the market for second hand goods is exactly the scrap yards. Therefore, the police do not do their job properly maybe they are bribed to zip their lips, who knows? (He said that opening his eyes wide open). *I believe there are many loopholes within the scrap yards structure. They are the ones who formed the second hand good market, thus they are the ones who should switch off the routine"* [**KII** - Cable theft investigator No.2].

One of the participants stressed the following:

"Even the Constitution of the Republic of South Africa Act (Act No. 108 of 1996) states that the role of the police is to prevent, combat and investigate crime to maintain public order to protect and secure citizens of the Country and their property. However, according to the participant's perception, the Police service do not meet their requirements and do not use their powers to mitigate the theft of cables in Durban railway stations. This participant did not see the role of SAPS in combating the theft of cables in Durban railway stations" [**FGD** - Cable theft Railway Patroller No. 4].

These participants agreed that the current legislation does not attempt to combat the theft of copper cable because even today the crime is still happening in the Durban railway stations. They also

pointed out that there are scrap metal (bucket shops) dealers who are operating while they are not registered and they buy copper cables from cable thieves. All participants agreed that the current legislation is not adequate in assisting PRASA in combating cable theft in Durban railway stations.

The researcher is of the judgement that the participants also do not have a clear understanding of the National Crime Prevention Strategy (NCPS) (1996) and of the White Paper on Safety and Security (1998), as these pieces of legislation also focus on the mitigation of crime in general. Therefore, PRASA security personnel need to be educated on all legislation that aims to eradicate crime in South Africa, not only focusing on the Scrap Metal Dealers Act (Act No. 10 of 2013) and the South African Police Service Act (Act No. 68 of 1995). Last, but not least, there should be an intervention implemented to assist the security personnel in combating cable theft, such as training police, cable theft investigators, and railway patrollers, implementing projects to respond to targeted social problems such as vandalising of rail industry infrastructure.

4.8. QUESTION 7: WHAT ARE THE CONSEQUENCES OF CABLE THEFT FOR PRASA IN DURBAN RAILWAY STATIONS?

One of the selected participants stated the following regarding the consequences of cable theft in the Durban railway station:

"Once there is power failure, Trains come to standstill and shut down wherever they are, either at the station or in the rail line and then the central traffic control also shuts down, the panel who control trains they also cannot see the movement of the trains and they will collide to each other" [**KII** - Cable theft investigator No.1]

The selected participants, in a common view all emphasised that the consequence of cable theft in railway stations is train derailment and train collisions because trains are manually operated and thus sometimes some of the commuters get injured and others get killed due to train collisions. They further stated that when the rail system shuts down, people lose their jobs, trains get delayed, trains get burnt by commuters, train drivers get assaulted by angry commuters and there are also thieves who would start robbing commuters inside the train.

In connection with the above presentation, one of the participants said the following:

"Cable theft has a negative impact towards the company as it need PRASA to pay over time for technicians to repair the cut cables. It causes train derailments and commuters are delayed [to and from] work. The commuter's end up vandalising trains and blocking railway stations. This participant stressed that cable theft is really a big issue for the company and the commuters" [**FGD** - Cable theft Railway Patroller No. 5].

4.9. QUESTION 8: CAN CABLE THEFT BE COMBATED EFFECTIVELY BY PRASA IN DURBAN RAILWAY STATIONS? (Please elaborate on your answer)

The selected participants contended that it is impossible to combat cable theft effectively in Durban railway stations but it can be reduced. The unemployment rate is high so that is also a reason cable theft cannot be combated effectively, and then another factor is lack of co-operating between the stakeholders who are responsible for combating cable theft. The value of copper in the market is another driving factor that can make it difficult to combat this crime. They further stressed that cable theft cannot be effectively combated in Durban railway stations because of the manifestation of scrap metal dealers who buy the stolen copper cables from the offenders. It is not only PRASA who is experiencing this crime but also other companies like Telkom, *eThekwini* Municipality, Transnet and others - they all experience cable theft. The participants emphasised that the scrap metal dealers (registered and not registered) are the ones who are making cable theft worse.

4.10. QUESTION 9: HOW EFFECTIVE ARE THE METHODS AND TECHNIQUES USED BY PRASA IN COMBATING CABLE THEFT IN DURBAN RAILWAY STATIONS?

This was another question asked to the selected participants in this study. The selected participants commenced by indicating that, although they have measures to combat cable theft in railway stations, it is still not enough and some of them are not effective enough in combating cable theft in railway stations. Seeing how cable theft has become a serious problem for the rail industry is an indication that the existing methods and techniques are not strong enough to eradicate cable theft. Therefore dedication and fighting harder are needed to address this problem.

However, now PRASA is making use of the following measures to eradicate the cable theft in Durban railway stations, as affirmed by the following participants:

"The methods that we use to fight against cable theft is by means of foot patrolling along the railway stations day and night, sometimes use the vehicles patrol. By doing that we are chasing the criminals and notice that we are on guard. The other method is that of visiting Scrap Metal Dealers without telling them first that we are coming" **[KII** - Cable theft investigator No.1].

The other participant had this to say:

"We even use the method of excavating deep the rail tracks and cover the cables with a concrete slab so that cable thieves when they want to steal the cable they will first dig harder and break the concrete slab, and that will be very time consuming to them" **[KII** - Cable theft investigator No.2].

The **FGD** - Cable theft Railway Patrollers concluded by solidly agreeing that no method and technique used so far is characterised as being an effective to combat cable theft in Durban railway stations. A solution for this was still questioned. These participants indicated that some of the techniques are effective in other areas where they operate because the crime has decreased there but not entirely. The participants said that guarding was the most used technique but some of the participants consider it as ineffective and a waste of money because the company would hire private security companies to add on to the existing security personnel but still that has not seen the cable theft being fought thoroughly, as even today the cable still gets stolen by the criminals.

4.11. QUESTION 10: HOW IS THE RELATIONSHIP OF PRASA WITH OTHER RELEVANT STAKEHOLDERS IN COMBATING CABLE THEFT IN DURBAN RAILWAY STATIONS?

The participants were asked to describe the relationship PRASA has with other relevant stakeholders in combating cable theft in Durban railway stations. The co-operation at this stage was not as strong as in the beginning phase; as a result few participants were participating and their responses were similar.

One of the participants accentuated the following:

"We have a fair relationship with the relevant stakeholder, (i.e. Telkom, Eskom, eThekwini Municipality, Transnet, MTN and Vodacom). He further stated that they usually have monthly

meetings with them because they are suffering from one issue of cable theft and they also engage SAPS and Non-Ferrous Theft Combating Committee in trying to combat cable theft" [**KII** - Cable theft investigator No.1].

"The 'SAPS' role in combating cable theft in railway stations is not clear to me. I experience their capacity as extremely low regarding this crime. What is so disturbing is that SAPS department is dragging its legs in mitigating this crime and I myself I believe that there is nothing that will ever come against collective collaboration, so we need SAPS to up their game and assist us in fighting against cable theft in our area" [**KII** - Cable theft investigator No.2].

The **FGD** - Cable theft Railway Patrollers further highlighted on the issue of SAPS accentuating that they need SAPS members to engage fully in mitigating this crime because they believe they can come up with effective strategies in combating cable theft. Everything is at standstill; they strongly need their knowledge and experience.

Having a closer look from the participants' perceptions, it is clear that they are really facing a challenge from SAPS members and that was making the performance of the PRASA security personnel more difficult, thus negatively influencing how the rail industry views the performance of the SAPS in general.

The FGDs interviewed specified that one of the reasons for a perceived lack of collaboration is that restrictions in the field of investigations and prosecution turned out to be very 'unstable' on the side of the SAPS team. However, participants believe that cable theft in railway stations can be fought by working as a team. Participants criticised the SAPS division on their inability to combat cable theft in Durban railway stations.

The selected participants stated that they have joint operations with the stakeholders because sometimes they work together and they contact each other when they are doing scrap visits. When there is a cable found during scrap visits they contact others (stakeholders) to come identify their cables. The participants emphasised that they should do more scrap visits together more often.

4.12. QUESTION 11: ANY OTHER COMMENTS YOU WOULD LIKE TO MAKE REGARDING CABLE THEFT IN DURBAN RAILWAY STATIONS?

Cable theft investigators and railway patrollers made it clear that there exists a need to strengthen the security personnel in fighting against cable theft in Durban railway stations. However, the rail industry must try by all means to make this crime reduction a first priority which is what the company would like to achieve in future.

The collaborated experiences of the participants in relation to making any comments about cable theft in Durban railway stations were as indicated below (i.e. not in order of importance):

- Consider the Crime Intelligence Driven Operational concept
- Tighten the scrap metal dealers' role in combating cable theft. These dealers should adhere to the rules and regulations of their Act.
- A qualified SAPS (railway) team with full knowledge to lead and fight cable theft is needed.
- A clear national strategy on cable theft in general is required.
- Put in place permanent security personnel who will be on railway stations 24/7 to respond immediately.
- Share of available resources and valid information between core-stakeholders in combating cable theft.
- Increase security personnel on railway stations (employment needs to be considered).
- Erect a protective fence, an electric fence that will prohibit cable thieves from coming to the railway stations.
- Introduce investigative trainings to existing security personnel.
- The national executive must give security guards on rail industry a right to shoot.

4.13. OBSERVATION SCHEDULE IN RELATION TO THE NATURE OF CABLE THEFT IN DURBAN RAILWAY STATIONS

The collection of data from Durban railway stations on cable theft incidents observation schedules was the last source utilised to gather data on the topic. Due to a limited number of interviewed participants, the researcher was enforced to employ the method of being a non-participant observer as this data collection method allowed the researcher to see the impact and the extent of cable theft

on railway stations in relation to the nature of the cable theft. Moreover, the researcher become more open minded on the topic investigated and the incidents that took place on railway stations made sense to the researcher as they were visibly observed. The participant were aware that they were being observed by the researcher. A total of two (2) incidents were observed by the researcher during the month of February 2018 in the Berea Station and the Rossburgh railway station.

Kumar (2014:173-174) proposed that in qualitative research we usually find two types of observation, namely: participant observation – where the researcher is involved in the activities of the respondents being observed, and non-participant observation - where the researcher "does not get involved in the activities of the group but remain(s) (a) passive observer, watching and listening to its conclusions and drawing conclusions from this".

For the purpose of this study, the researcher's major observations were the incidents of cable theft from the railway stations, and how signals get interrupted when the cables are being stolen. Therefore, the purpose of attending the railway observations in question was to furnish the reader with some basic knowledge of how the cable theft investigators together with railway patrollers respond to cable theft in their demarcated areas. The researcher noted the observations made during cable theft incidents happening at Durban railway stations and the notes stemming from the observation of cable theft incidents at railway stations were analysed carefully by the researcher, and the limitations thereof considered. The following actual observed incidents took place in Berea railway station and the Ross burgh railway stations of Durban, South Africa at the time of conducting this study:

Figure 6: New instalation of stolen cable

Source: Researcher's illustration

On February10, 2018 at around 11:01 the researcher observed the technicians fixing the railway cable that was stolen from Berea railway station around 02:47. Figure 6 shows what it looks like when the cable is being repaired. This refers to a 64 core- 30-metre cable that was stolen by cable thieves and the patrollers believe it was not the syndicates who caused this damaged here, but the branded 'fly-by-nights / Chancers / *Amphora*' (petty criminals/junkies).

Figure 7: Cut-off copper cable

Source: Researcher's illustration

Shown in figure 7 is the incident of a 30-metre cable that weighs 64 core of copper. This occurred in Berea station on 10 February 2018 around 02:47. The technicians were fixing this cable as early as 07:30 so that trains could start operating with their daily routines. The technicians in response emphasized PRASA is really losing a lot of money due to cable theft because of repairing these cables immediately after the occurrence and this costs lot of money to repair.

Figure 8: Vandalised robot signals

Source: Researcher's illustration

The cable theft railway patrollers have also stressed that these petty criminals also vandalise the robot signals because there are also signal cables that have copper in them. Therefore, it is not only the railway cables but also the robot signals. Figure 8 was taken at Rossburgh railway station.

Figure 9: Exposed track box

Source: Researcher's illustration

Shown in figure 9 is an exposed track box taken at Rossburgh station. Its function is to report on the JOC office when the train passes this point so that at JOC they can see where the train is.

Therefore, petty crime criminals (Whoonga/Nyaope boys/criminals) normally steal the copper cables inside this box. When these cables are stolen, the track box does not work causing a major problem because, as trains cannot be controlled at JOC, they cannot determine a train's location.

4.14. IDENTIFICATION OF STUDY THEMES

Five themes were derived from the responses solicited from the selected participants of this study. These themes emerged from the process of data analysis and discussion and direct quotations from the transcribed FGDs and KIIs. The sequence of events, as uniquely experienced by the participants and how these real themes experienced, revealed the existential and social meaning of the cable theft phenomena in Durban railway stations as discussed under the following themes:

4.14.1. Theme 1: The expressed nature of cable theft

The research findings, with regard to the nature of cable theft as derived from the personal experiences of the PRASA security personnel in Durban railway stations, put together a clear image of this crime in general. According to the participants, cable theft has a high value in the market and this results in rail industry being the victim of cable theft. The nature of this crime has a negative impact on the rail service as this means, when the cable theft occurs, trains get delayed to make their set time from one station to another. There would also be train derailment and loss of signal personnel due to cable theft in railway stations. Secondly, the effect of cable theft has a direct impact on local businesses and companies (i.e. PRASA) as they lose billions of rands annually trying to curb this crime. The participants stressed that it only takes one metre of cable to bring the whole rail industry to a standstill and they emphasised that this crime at the moment is uncontrollable and is not going to be controlled anytime soon. The participants experienced this as upsetting because it is giving an advantage to their competitors regarding means of transport and gives a bad image to the train users. The statistical image of cable theft in Durban railway stations is very bad, and this crime trend is not easy to curb and the percentage of reported cable theft incidents is increasing annually. The SAPS team together with law do not realise the seriousness of this crime and the damager it brings to the rail industry as they hand out light sentences to the convicted individuals. PRASA is the only figure that understands the damage this crime has together with other victims of this crime such as Transnet, Mobile Telephone Network

MTN, Vodacom and Eskom. Consequently, they are the ones who hold joint meetings to discuss the mitigating factors of this crime.

The selected participants indicated that the investigations on the nature of cable theft showed the different types of cables being targeted by the criminals and the impact this crime has on the rail industry after it has taken place. Most importantly, this crime does not only have a negative effect on the company, but the commuters as well who use trains as a means of transport to and from work. The findings of this study show that cable theft still exists on all stations of Durban. It is a huge problem that needs to be taken seriously by the combating team within the company and the state also needs to play a big part because working collectively will generate ideas on how to reduce the seriousness of the crime.

4.14.2. Theme 2: Inexhaustible contributing factors to cable theft

Lack of proper protection is the theme that emerged from the interviews that took place. The participants are concerned that the fencing is so poorly structured that it permits cables crime in railway stations to be operated very easy. The fencing is designed in such a way that cable thieves have easy access to come and steal the cables any time they feel like it. This means the entrance phase is not giving them challenges at all. Another concern is the lack of reporting structures within the department, and the police are not easily accessible to be given cable theft cases. As a result, not enough follow up is being made on the existing cases and there is poor communication between the key stakeholders in combating this crime happening in railway stations. In addition, drugs and unemployment are also contributing to cable theft in railway stations. Here in Durban the cable criminals are mostly those who are unemployed and those who come from a poor home background. PRASA security officials would arrest the homeless thieves who are staying under the bridge by Williams street and across the N2 freeway entrance route.

Moreover, the value of the copper in the market is high which means that copper cables are in danger of being stolen day and night. Lastly, taxi drivers also contribute to cable theft in railway stations. The participants highlighted that taxi drivers would hire a gang to come and destroy the railway so that the operation will fail in a way that will make it difficult for PRASA to fix the problem within a short period of time. They do that for gaining more money because they know that the people will change the means of transport from trains into using their taxis and while

dealing with this issue the arrested criminals get the light sentences and get released from the prison even without notifying the PRASA officials. The light sentences being given at criminal courts really contribute to cable theft in railway stations.

4.14.3. Theme 3: Limited strategies used to combat cable theft

Guarding of the railway stations physically is still the main strategy used to combat the theft of cables in Durban railway stations. However, there are times or periods when physical guarding could work but most of the time it is not working because there are only a few cable theft patrollers employed by the company. Furthermore, patrolling on foot and doing hourly observations is also hindered by the resources that are supposed to be used by the company security personnel. Communication and transport are always a big problem for the combating team as there are limited cell phones and vehicles to perform the duties. The participants underlined that doing foot patrol observations does not curb the escalation of this crime and they said it is not the best solution given the nature of this crime is this high. Strengthening the existing resources and introducing more effective strategies can be the solution for cable theft.

The participants indicated that visiting scrap metal dealers was another strategy used because they believe that stolen cables are being sold to the scrap yards. The participants are of the view that scrap metal dealers are the ones who contribute to this crime; therefore, monitoring them unknowingly was the best option to stop them from purchasing the stolen cables. Secondly, employing of private security companies was another strategy used by the company as they were deployed in different places to cover the whole area but also that is not enough or it is not effectively combating cable theft.

The participants highlighted that these private security companies do not thoroughly do their job because the cable is still being stolen and there are times when you would find them sleeping in their mobile rooms. The company is spending a lot of money on trying to strengthen the security system but still the cable is being stolen. The participants, within their limited capacity, would use any means possible to make it difficult to commit cable theft for the perpetrators. As a result, they would cover the cables with the concrete slabs and use the approach of hiding themselves in the long grass wearing invisible clothes or the ones that have the same colour as the grass in trying to fight against cable theft operating at Durban railway stations. In conclusion, this crime is really a

big threat to the company as well as the security system and they believe that if new or technology resources can be introduced to work with them, this crime can be reduced and possibly be brought to a stop.

4.14.4. Theme 4: Inhibiting challenges to combat cable theft

Firstly, the lack of 'manpower' on railway stations is regarded as the main challenge by the cable railway patrollers. The participants stated that the team that guards at night and during the day is working so tremendously hard but that still does not inhibit cable thieves from stealing the railway cables. However, they stressed that the company needs to deploy more trained security personnel who will patrol the railways to increase the numbers of security patrollers. Moreover, cable patrollers perceive the private securities companies that would get employed to assist PRASA cable theft combating team as clueless and do not put cable theft as a priority crime that needs to be eradicated very quickly. The capacity and competence of these private security companies is also very limited as they would not cover the whole area that is likely to be a hot spot for cable theft. In conclusion, the participants stressed that if they can work collectively with the private security companies and SAPS team, cable theft can decrease in nature and they urged the company to employ more cable railway patrollers.

Secondly, scrap metal dealers are another challenge that forces the cable theft to escalate in nature and makes matters difficult for the combating team to eradicate the theft of different cables in Durban railway stations. The participants emphasised that legal scrap metal dealers and bucket shops do not adhere to the scrap metal dealers' rules and regulations. As a result, during the scrap yard visiting, the participants stated that they would find stolen cables and sometimes get the cables while still in position of the seller and the scrap yard dealers would make as if they were going to call the company to see if they had had cables stolen recently. In conclusion. The cable thieves cannot commit a cable theft without knowing where to sell the cables. The participants believe that cable thieves work as a team with scrap metal dealers in this crime.

Thirdly, lack of resources is another challenge in combating cable theft in the Durban railway stations. The participants pointed out that the resources available to them met few of their needs. The vehicles they are driving are not well maintained and the roads between the rail lines are not well structured; as a result it makes it difficult for the car to be driven. In addition, cell phones for

reporting a crime that is still in operation is an issue, as some of them do not have company cell phones and they are not even loaded with airtime. Therefore, this issue makes it difficult to work confidently in mitigating cable theft in the Durban railway stations.

Fourthly, no new approaches have been introduced to combat cable theft. There are no proper trainings provided to all key stakeholders to combat cable theft. They are utilising old strategies and measures which the cable thieves know very well. Lastly, The SAPS team as a stakeholder in response to cable theft is also viewed by the participants as a serious challenges. The said stakeholder is really crippling the performance of PRASA security personnel and is seen in a negative light by the public or commuters as no action is being taken by the combating team in eradicating the cable theft in railway stations. Therefore, it is clear that there is no stable collaboration between the SAPS and the PRASA cable theft combating team. For example, in multiple cable theft cases SAPS members are not part of the process and when being informed by PRASA officials they take time to arrive at the crime scene or make excuses that their vehicles have gone to other operations. What they are good at is to come to the party just to make an arrest and open the docket on an operation that was facilitated by PRASA security officials alone. Consequently it is believed by the participants that SAPS do not have plans of combating cable theft in railway stations and they lack policing priorities in relation to the nature of this crime.

The participants perceive that cable theft in railway stations can only be fought with a true and strong collaborative attitude.

4.14.5. Theme 5: Unbearable consequences of cable theft in Durban railway stations

The theft of cables in Durban railway stations leaves a negative result for all of the stakeholders including commuters. The theme that emerged is that cable theft in railway stations causes train derailment and train collisions, leaving commuters injured very badly and others killed. This is really a bad situation facing the rail industry. Furthermore, the rail system gets interrupted by the unplanned disruption of train movements as a result this angers commuters who at times react by torching the trains. What is really happening in railway stations is uncontrollable and very traumatising. Therefore, fighting cable theft in railway stations collectively is the key approach that will see this crime being beaten.

4.15. ATTAINMENT OF STUDY OBJECTIVES

This section of this chapter illustrates the attainment of study objectives.

4.15.1. To assess the nature of cable theft in Durban railway stations

In this study, it was clear that the nature of cable theft in general is very complex and the literature reviewed and the participants have confirmed this by highlighting the problem. The research study attests that cable theft in railway stations is indeed a serious crime that creates problems for different types of victims such as commuters, companies and even the government. Therefore, in summation participants from the KIIs (Cable theft investigators at PRASA Protection Services) emphasised that the ongoing damages to railway stations will result in the company losing a lot of money and commuters being stranded. Lastly, the bigger picture in this context is very negative and at this stage it is not easy to combat the cable theft in railway stations.

4.15.2. To identify the contributing factors to cable theft in Durban railway stations

In this study, the literature review and the findings have highlighted the contributory factors to this crime. There are contributing factors to this crime at all times which the participants have addressed. To mention a few, these include scrap metal dealers who do not comply with the rules and regulations of their Act. Scrap metal dealers buy stolen goods from non-authorised associates to effectively increase the cable theft. In addition, the value that copper has in the market also leads to railway cables being targeted by the cable criminals and this is escalating in nature. The rail industry see itself as having to adjust to other ways of operating and loses billions of rands. It needs to repair railway infrastructure in such a way that will see the company growing and operating in a crime free zone. In conclusion, the lack of reporting structure within the department and light sentences to criminals were highlighted by the findings of the study as well as the literature being used by this study. These aspects are seen as contributory factors to cable theft in the Durban railway stations as they have a negative effect on the company as well as the users of the railway infrastructure. The researcher is of the opinion that there exists a lot that needs to be done to curb this crime. Eliminating the contributing factors will enable the company to operate well and in a beneficial way for both the company and the commuters.

4.15.3. To assess the current strategies by rail industry of Durban to combat cable theft

This objective was achieved in this study and the strategies are highlighted below.

Railway cable foot patrollers, private security guarding and random visits to scrap metal dealers form the basis of the current strategy used by the rail industry against cable theft in Durban railway stations. However, the current strategies in this research study seem not to be effective to eradicate the theft of cable in railway stations. The participants clearly showed that they have no confidence in these strategies to combat the crime.

4.15.4. To examine the existing challenges faced by railway industry of Durban in combating cable theft

In this regard, the railway industry encounters the problems of untrustworthy scrap metal dealers and not having enough manpower to curb the cable theft in railway stations. Scrap metal dealers are not strict in dealing with the second hand goods and maybe they are not policed sufficiently. Consequently, there are a lot of loopholes in their system and they manage to get away with buying and selling illegal goods. It was highlighted that there are even unregistered dealers who buy the stolen goods and they all work together with the registered scrap yards.

Not having of enough manpower is also an issue. Moreover, participants stressed that they do not have confidence that they can eradicate the cable theft in railway stations with only the manpower they have. Therefore, more manpower is needed if the rail industry wants to see this crime coming down.

4.16. SUMMARY

During the qualitative sessions undertaken by this research study, it was clear that the participants valued the fact that their ideas about cable theft were being given consideration. The participants were open to having an input and eagerly provided a window within which their experiences of crime could be placed with other perspectives.

This chapter covered the viewpoints of the participants as identified by the researcher. The findings in question were derived from the proposed objectives of this study on the combating of cable theft

in Durban railway stations, guided by the formulated interview schedule presented by the researcher. The presentation included responses from identified participants, the nature of cable theft in railway stations, the contributing factors to cable theft escalation, combating strategies utilised in fighting against cable theft and the existing challenges faced by the combating team in mitigating the cable theft in railway stations. All of these factors were put under severe scrutiny.

The next chapter (Five) will discuss the findings, summarise what has taken place in this study and final recommendations for the identified themes of this research study will be considered. General recommendations and the identification of future researchable topics will also be discussed.

CHAPTER FIVE

DISCUSSION, SUMMARY AND RECOMMENDATIONS

5.1. INTRODUCTION

This chapter is the final chapter of the research report. It contains the conclusions to the research together with the research findings arising from the research. The achievement of the objectives will also be discussed. Lastly, in this chapter the recommendations stemming from this study and future research topic are included.

5.2. DISCUSSION OF STUDY FINDINGS

The purpose of the discussion, according to Labaree (2009), is to interpret and describe the significance of the research findings in light of what was already known about the research problem being investigated, and to explain any new understandings or insights about the problem after the findings have taken into consideration. Furthermore, the discussion will always connect to the introduction by way of the research questions or hypotheses posed and the literature reviewed, but it does not simply repeat or rearrange the introduction.

5.2.1 The nature of cable theft in Durban railway stations

The major findings from the data extracted from the participants through the FGDs, KIIs, as well as cable theft incidents observed on railway stations in relation to cable theft are crucial in assessing the nature of cable theft in Durban railway stations. This was to determine the effect or/impression that cable theft in railway station has caused. Their responses indicate that the nature of cable theft in Durban railway stations is indeed a serious crime and the investigations reveal that when the cables are being stolen, the rail service shuts down, causing train derailment and delaying trains. Once the train derails, people lose their lives and some of them set trains alight to express their anger regarding the phenomena. When there is a stoppage of rail service, the commuters change their means of transport and the company loses billions of rands trying to repair the damage that has been caused by the theft of cables.

The findings of this research study are important as they help to explore the crime of cable theft in Durban railway stations collectively, looking at the phenomena holistically and at the qualities this crime possesses. The findings of this study mean that there exists a lot of serious problems created by the theft of cables in Durban railway stations. In support of the above discussion on the findings of this research study, the Department of Energy ([s.a]:n.p) indicates that in 2010 an estimated R265 million worth of copper cables was stolen and it is estimated that it cost the economy about R5 billion per year.

The Department of Energy further explained that cable theft damages business and other infrastructure during or after the theft of cables. Cable theft can cause death to innocent humans as well as causing serious damage to electrical appliances, and the loss of communication cables in rail operations can cause serious accidents between trains or at railway crossings (Department of Energy, [s.a]:n.p). Comparing to the finding of this research study, "a new study based on data from British Transport Police reveals that cable theft is still occurring around five times a week in the UK, causing majors delays and disruption to railway stations causing 23,670 minutes of delays to passengers". Although the total figure is only half of that from the previous year, cable theft continues to cause network rail delays of over an hour a day (Rail Technology, 2017:n.p).

5.2.2 Contributing factors to cable theft in Durban railway stations

Here, this study reveals that in order to understand the contributory factors to the cable theft in Durban railway stations the major finding of this research need to be considered. The responses of participants indicate that scrap metal dealers is the key factor that contributes to cable theft as the scrap yards do not abide by the requirements of the Scrap Metal Dealers Act (Act No. 10 of 2013). However, the participants also pointed out that the shortage of manpower is another contributory factor and even the cable thieves know what capacity PRASA has in terms of physical guarding. So, the cable thieves know exactly that there are two (2) bakkies (company vehicle) that are responsible to guard the day and the night shift. The cable thieves see this as the weak strategy that is employed by PRASA. The lack of reporting structures within the combating team is really an issue for the combating security personnel.

The participants indicated that the company itself is somewhat letting them down as they do not even have cell phones to contact the other group when there is cable that is being stolen or they

just want to report an incident. The communication is very poor between the company and its employees (security officials).

They further explained that the police are not easily accessible to receive, or deal with, cable theft cases as they also have a problem of having limited police vehicles and lose the dockets that are being tested. Moreover, these findings highlight that these factors mentioned above are the reason cable theft in railway stations still exists and why it is increasing in nature. If more attention can be paid to these factors, the theft of cables can decrease in railway stations and the channelling of these cables needs to be switched off as it is believed they are the umbrella phase. In support of the above discussion, the stolen copper had to go through the hands of scrap metal dealers and the recycling vendors. However, the notion that the scrap metal market was in no manner policed sufficiently still exits nowadays and there are so many loopholes that in a way they have become untouchable (Pretorius, 2012).

5.2.3 Strategies used to combat cable theft in the Durban railway stations

This research study found out that the strategies used to fight against cable theft in railway stations are not effective enough as this crime is still escalating. Cable theft in Durban railway stations is really a serious crime that needs actual tactics or approaches to stop it. Therefore, the major findings of this research study as derived from the participants indicate that physical guarding by foot patrolling is the dominating strategy used by PRASA as the business who is the victim of cable theft. But still this strategy is not effective enough to combat the theft of cables in railway stations. However, further actions are taken by the company to do weekly and sometimes daily visits to scrap yards without letting the scrap dealers knows about the visits. The purpose of this strategy is to stop the scrap dealers from buying the stolen cables from the cable thieves so that, if they do, they can be caught while still in the process of purchasing the stolen good. In addition, the company also came up with the strategy of covering the cables with concrete slabs so that it will be too time consuming to excavate the railway stations. There are also private security companies employed to assist in combating cable theft in railway stations as they would also patrol the railway stations. These findings are important in this study as they highlight the loopholes on what needs to be implemented and strengthened to fight against this crime and they mean that effective strategies need to be implemented.

Pretorius (2012:135) emphasises that "conventional physical guarding was still the main method used to protect copper cable theft in Gauteng". Moreover, other measures such as the employment of integrated security systems which everyone deemed as the safest technology that would decrease the rampant stealing of copper cables. This technology is further seen as expensive yet archaic system which could independently reduce the heightened levels of copper cables.

5.3. STUDY LIMITATIONS

5.3.1 Setting dates for the interviews

This research study had limitations in terms of gathering FGD participants, particularly the cable theft investigators at PRASA Protection Services as the researcher had to constantly expand the content to include the cable theft patrollers as part of the study because of failure to find a time that was suitable for all participants as some of them were allocated night shifts by their company.

5.3.2 Attention paid to the posed questions to the selected participants owing to their operational duties

During the FGDs, some of the selected participants were not paying undivided attention to the posed questions since they would perform their duties while in the process of the scheduled interviews. As a result, no formal meeting interview was scheduled by the Manager of Protection Services at PRASA as the manager emphasised that interviews would take place while the participants were on duty. The researcher then ensured that during focus group discussions all the relevant information was written down as these interviews were going to be interrupted and patrol duties affected.

5.3.3 Fear of exposure by the selected participants in the key informant interviews and focus group discussions

The researcher assured the participants that participation was voluntary and confidentiality would be maintained. This was to make the participants aware of the purpose of this study, as well as to encourage them to feel free to participate in the study, and they were informed that the researcher was under UKZN's ethical obligations.

5.3.4 Geographical confinement

This study field was confined to Durban railway stations and was limited to PRASA cable theft investigators and cable theft railway patrollers, although they represented the entire population that deals with cable theft cases in railway stations. This means that the voices of other significant populations who might have contributed valuable information were excluded because of time and financial constraints.

5.3.5 Generalisations of study findings

Further limitations were that the participants' views could not be generalised as the views of all the companies that are falling victims of railway cable theft in Durban, KwaZulu-Natal Province as Transnet were not part of the study. However, the settings encountering similar problems of cable theft can use these study findings and the views expressed during the FGDs and KIIs. Moreover, the findings from the observation schedule (i.e. using the inspection in loco) incidences on railway stations in relation to the nature of cable theft could be used as well. As they provided useful insights to the causes of cable theft in the Durban railway stations.

5.4. STUDY SUMMARY

This research investigated the cable theft phenomenon in Durban railway stations (i.e. KZN). The relevance of this topic to the public and rail industry is that copper cable theft holds a specific danger for the entire South African industry infrastructure in that it causes a *domino* effect that vibrates on all levels. For example, if the transports system such as buses, the trains, or ships, were to stop being operational, all the supporting and dependent services would follow. This realisation must nurture a common understanding and a vision of the problems facing business and industry and suggest how these problems should be tackled. In order to create an awareness of the needs of security practitioners, combating cable theft meant that the copper cable theft phenomenon had to be investigated and dissected.

This research was conducted with the intention to understand which specific factors can inhibit the mitigation strategies of combating cable theft in the rail industry and business, and to find out what are the perceptions of PRASA security personnel regarding this crime and, in addition, what impact this crime has on the public (i.e. commuters). This was a qualitative research study. The stipulated research procedures were followed for an interpretive and descriptive study. The research objectives of the research were to uncover the copper theft phenomenon regarding its nature, contributing factors, the strategies utilised by rail industry in combating cable theft and, lastly, to examine the existing challenges faced by railway stations. The descriptive objective of the research study was to describe the experiences of the individuals who have responded to this crime (proactive and reactive) and then to recommend probable interventions as deduced from this research. All of the research objectives have been met.

5.5. STUDY RECOMMENDATIONS

From the findings generated, it became clear that cable theft in Durban railway stations still exist, and the current preventative measures against cable theft in the area under study, and elsewhere, do not effectively combat the theft of cable in railway stations of the area under study. Thus, there is a long way to go to combat this crime effectively. This suggests that the strategies implemented so far have not been successful. These inefficiencies should be corrected, and some other strategies that could be employed include.

5.5.1 More attention paid to the scrap metal dealers

Cable theft costs the rail industry billions of rand every year to replace the stolen cables; on the other hand, local scrap metal dealers are gaining from the cables being stolen from railway stations earning more than what rail industry is losing.

Looking from all the aspects of this research study, the researcher finds scrap metal dealers as the real culprits responsible for the entire situation in that scrap metal dealers controlled the market for stolen cables and the recycling process. In this research study, the scrap metal dealers were regarded as the key to the successful mitigation of cable theft and the core institution that kept cable theft alive.

In addition, SAPS is recommended to put much focus on the scrap metal industry to stop the supply chain and merchants in cable theft. If they have dealt with this thoroughly, they will also be able to deal and control all the second hand copper trade, as well as the bucket shops (illegal trading). If they can deal with this crime effectively, cable theft in railway will come to a halt. Moreover, illegal scrap metal dealers need to be withdrawn immediately from operating as they are the network system which cable thieves use for their illegal business. They are regarded as the ones who make this crime accelerate as they firstly 'wash' the copper before it is brought to the main dealership.

The suggested solution to cable theft at railway stations would be to declare any trade of second hand copper to be unlawful. This act will effectively render any second hand copper useless and of no value. If that can be attained, the whole cable theft [copper] problem will be resolved and if this decision can be implemented as a law, the scrap metal dealers will no longer hold the key to controlling illegal cable theft trade as they are eventual buyers.

5.5.2 Offering strict rules on issuing of trading licences and consideration of harsh sentences for possible offenders

The scrap metal dealers need to oblige on the agreement made between them and the issuer of the trading licences. Failure to do so, they need to be stopped immediately from trading second hand goods and be given harsh sentences because, while they are making a lot of money from buying the stolen copper cables, on the other hand, the companies getting stolen from are losing billions of rand every day. If harsh sentences can be given to deserving perpetrators, this provide an example to those who are also doing a similar job. Putting this recommendation into consideration can effectively reduce the cable theft happening in railway stations.

5.5.3 Establishment of more working resource

The rail industry [victims] needs to improve their manpower in combating the cable theft. However, this would mean the patrollers would be more proactive rather than being reactive all the time. The interviewed participants emphasised always using reactive measures; therefore, if the victims can deploy more private security guards, employ more qualified railway patrollers and

have more patrolling vehicles that can travel on badly serviced side roads in railway stations, participants believe this crime can be reduced effectively because they would cover a much bigger area when patrolling and the offenders would not get a chance to do the operation.

5.5.4 Implementation of relevant stakeholders' partnerships

This means all companies affected by cable theft [role players and stakeholders] must form a united team and work together. They should share together the available resources and intellectual capital. The participants emphasised that they have to build a strong relationship among themselves, use their experienced, knowledgeable and qualified leaders to tackle this crime occurring in railway stations. The participants highlighted that they do have a joint operation with other affected companies within the environment where cable theft is encountered but their relationship needs to be strengthened and they are urging more especially SAPS in combating the seriousness of this crime.

In order to achieve this goal, SAPS must be capable of working together with the combating team and collaborate with all relevant stakeholders and role players and the victimised companies must appoint reliable personnel or train SAPS members, if it is possible to work under professional guidance. Most importantly, the victims of this crime need to measure precisely what they require and expect from SAPS members and again make it clear where the limitations are.

5.5.5 Establishment for Cable Theft Specialised Unit

The implementing of a so called "Special Unit" as was done in the United States of America (USA) can also contribute to combating cable theft in the rail industry. It is of great importance that South African law consider implementing this Unit. The victims of cable theft together with government agencies should establish this Unit in order to protect their resources. However, SAPS should also play a role in this Unit and not allow it to get bribes from the criminals. What is more important here is to work together because this issue needs *"Intsebenziswano"* (i.e. loosely translated: *Work together)* in order to strive for excellence in mitigating this crime. The rail Industry must not work in isolation.

5.5.6 Amendments to the existing legislative framework

As in this recommendation, the researcher thinks the powers of the police in the existing legislation needs to be stated clearly and then police need to know what the legislation requires from them. However, their authority is not clear in trying to mitigate the stolen goods problem. An example needs to be made. If the legislation, for instance, can include that the sellers of second hand goods must first start by approaching the police and produce a document with full particulars of the seller that says these goods are not stolen, that would be a good start. Then the police should give the seller a waiting period of at least five working days to verify the goods that are being sold. The third part would be for the police to take the goods to a scrap metal dealer and they also have to produce full particulars of themselves and a record of that is to be kept. Lastly, the person who was selling the goods will get a call from the police to receive his money and sign a document that says he has received his money.

5.5.7 Aligning with technological advances and improvements

The rail industry needs to introduce the use of technological advances made, such as closed-circuit television (CCTV) cameras to eradicate cable theft in railway stations. The combating of cable theft should be modernised to enhance the daily operations of cable theft patrollers knowing that there is additional technology being used to work hand in hand with them given the widespread area covered by the technology. This could improve the working ability of the patrollers if they know that they have full support from the company. The role players need to fully understand the use of technology and the power of technology in combating cable theft in railway stations. This would contribute to addressing the cable theft phenomenon successfully in the Durban railway stations.

5.6. FUTURE STUDIES

This research study has described the cable theft phenomenon happening in railway stations. The requirements to project a proper research strategy with clear professional guidelines to mitigate cable theft in railway stations were discussed. The findings of this research study offered a deep understanding in terms of crime prevention, the perceptions of senior cable theft investigators and

cable railway patrollers of the need to curb cable theft happening in the rail industry. To curtail cable theft, it is clear that it needs more knowledge that is uncovered in this dissertation. Therefore, a successful crime reduction strategy in rail industry will need proper planning within the affected organisations. Lastly, it will need mechanisms to prevent cable theft from negatively affecting the organisation.

The following future research recommendations are deemed of importance for research studies:

- Urgent research needs to be conducted regarding the methods and techniques used in place to combat the cable theft phenomenon in railway stations by the involvement of parliamentary dignitaries. This will show how effective and relevant these techniques and methods are in reducing the scourge.
- The investigation of the adherence of the scrap metals dealers to the rules and regulations governing second hand goods market. This will basically examine and assess the understanding that scrapyards have on the existing Acts.
- A response is needed from SAPS [railway police] in combating the cable theft scourge. This research would specifically measure the strategies and methods SAPS uses in combating cable theft in railway stations.
- The use of modern technologies in combating cable theft phenomenon in railway stations.

REFERENCES

AGNEW, R. 1992. Foundation for a general strain theory of crime and delinquency. *Criminology*, 30, 47–88.

ARENDSE, N. 2010. *Copper theft prevention: An analysis of current strategies in place to address the scourge*. Available from: http://www.sarpa.co.za/Portals/25/Documents/Conventions/2010/Neil%20Arendse%20-%20Copper%20Theft%20Prevention%20final%20report.pdf [Accessed: 20/10/2017].

ASHBY, M.P.J., BOWERS, K.J., BORRION, H. & FUJIYAMA, T. [Online]. 2014. The when and where of an emerging crime type: The example of metal theft from the railway network of Great Britain. Available from: https://link.springer.com/content/pdf/10.1057%2Fsj.2014.43.pdf [Accessed: 05/12/2017]

AWAKE. 2008. *Is crime out of control?* [Online]. Available from: http://wol.jw.org/en/wol/lv/r1/lp-e/0/17970. [Accessed: 28/02/2018].

BABBIE, E. & MOUTON, J. 2011. *The practice of social research:* South African edition. Cape Town: Oxford University Press

BABBIE, E.2010. *The practice of social research.* 12th ed. Beltmontcalf: Thompson Wadalsworth.

BENNETT, L. 2008. *Assets under attack: metal theft, the built environment and the dark side of the global recycling marke*t. Available from: http://shura.shu.ac.uk/683/1/fulltext.pdf [Accessed: 24/11/2017]

BEZUIDENHOUT, C. 2011. *Southern African perspectives on fundamentals criminology*. Cape Town: Pearson Education Publishers.

BLESS, C., HIGSON-SMITH, C. & KAGEE, A. 2006. *Fundamentals of social research methods: An African perspective*. Cape Town: Juta.

BOND, M. 2015. *Criminology: Rational Choice Theory Explained*. Available from: https://www.linkedin.com/pulse/criminology-rational-choice-theory-explained-mark-bond [Accessed: 20/05/2018].

BRAUN, V. & CLARKE, V. 2006. *Using thematic analysis in psychology. Qualitative research in psychology:* London: Routledge.

BUSINESS LIVE [ONLINE]. *2017*. Commuters hijack train and force it to stop in KwaMashu. Available from: https://www.businesslive.co.za/bd/national/2017-03-02-commuters-hijack-train-and-force-it-to-stop-in-kwamashu/ (Accessed: 02/03/2018)

BUSINESS LIVE [ONLINE].2011. Copper theft is crippling parastatals. Available: http://www.businesslive.co.za/Feeds/ businesstimes/article1422586.ece (Accessed: 23/06/2017)

CIVILIAN SECRETARIAT FOR POLICE [Online]. 2016. WHITE PAPER ON SAFETY AND SECURITY. Available from: https://www.saferspaces.org.za/uploads/files/2016-WPSS.pdf [Accessed: 01/06/2018)

COMBINED PRIVATE INVESTIGATIONS [Online]. 2013. SA NOW LEADING EXPORTER OF (CABLE) COPPER. Available from: http://www.combinedpi.co.za/sa-now-leading-exporter-of-cable-copper [Accessed: 19/10/2017]

CRESWELL, J. 2009. *Research design: Qualitative, quantitative and mixed methods approaches*. London: Sage.

CRIMINAL JUSTICE. [ONLINE]. [s.a]. Rational Choice theory. Available from: http://criminal-justice.iresearchnet.com/criminology/theories/rational-choice-theory/ [Accessed: 18/05/2018]

CRIMINAL PROCEDURE ACT [ONLINE]. [S.A]. CRIMINAL PROCEDURE ACT. Available from: http://www.vsrh.hr/CUSTOMPAGES/STATIC/HRV/FILES/LEGISLATION__CRIMINAL-PROCEDURE-ACT.PDF. (Accessed: 06/06/2018)

DAILY NEWS [ONLINE]. 2014. KZN cable theft victory. Available from: https://www.iol.co.za/dailynews/news/kzn-cable-theft-victory-1677139 [Accessed: 01/03.2018]

DE VOS, A.S., STRYDOM, H., FOUCHÉ, C.B. & DELPORT, C.S.L. 2011. *Research at grass roots for the social sciences and human service professions*. 4th ed. *Pretoria: Van Schaik.*

DENSCOMBE, M. 2010. *Ground rules for social research guidelines for social practice.* 2nd ed. New York: Open University Press.

DEPARTMENT OF ENERGY [ONLINE]. 2015. COMBATING COPPER THEFT. Available from: https://www.erico.com/catalog/literature/EU115LT15WWEN.pdf (Accessed: 24/01/2018)

DEPARTMENT OF ENERGY [S.A]. Select committee on economic development. Impact of cable theft on economic development. [Slides]. Republic of South Africa. Department of Energy. 10 Slides.

DEPARTMENT OF SAFETY AND SECURITY [ONLINE]. 1998. White paper on safety and security. Available from: http://www.policesecretariat.gov.za/downloads/white_paper_security.pdf [Accessed 18/09/2017]

DLAMINI, S.2015. *A Victimological Exploration of the Programmes and Services available to Victims of Trio-Crimes in Durban Metropolitan Area*. Published Thesis (M.A). University of KwaZulu-Natal. School of Applied Human Science. College of Humanities

DONLEY, A. 2012. *Research methods*. New York. Info Pub.

DU PLOOY-CILLIERS, F., DAVIS, C. & BEZUIDENHOUT, M. 2014. *Research matters*. Cape Town: Juta.

ECK, J.E. 1994. *Drug markets and drug places: A case-control study of the spatial structure of illicit drug dealing*. Baltimore: University of Maryland Press.

ELECTRICAL REVIEW [ONLINE]. 2013. Fighting copper theft with smart cable technologies. Available from: https://www.electricalreview.co.uk/features/9546-fighting-copper-theft-with-smart-cable-technologies [Accessed: 19/10/2017]

ELECTRICITY AMENDMENT ACT [ONLINE]. 2007. ACT. Available from: https://www.google.co.za/search?q=Electricity+Act+(Act+60+of+2007&ei=SDEZW5nrOceYgAa7gLDoCQ&start=0&sa=N&biw=1008&bih=626 (Accessed: 07/06/2018)

ELLMAN, L. 2012. Cable theft on the railway: Fourteenth report of session 2010-12, Vol. 1: Report, together with formal minutes, oral and written evidence, The Stationery Office.

ERICO [ONLINE]. 2015. Copper Theft: A Global Epidemic. Available from: https://www.erico.com/catalog/literature/EU115LT15WWEN.pdf [Accessed: 04/12/2017]

FINANCE NEWS 24 [ONLINE]. 2015. Legislative changes to fight copper theft – minister. Available from: https://www.fin24.com/Economy/Legislative-changes-to-fight-copper-theft-minister-20150507 [Accessed: 06/06/2018]

FLICK, U. 2006. An introduction to qualitative research. 3rd ed. London: Sage.

FLICK, U. 2011. *Introducing research methodology: A beginner's guide to doing a research project*. London: Sage.

FOUNDING PROVISIONS CONSTITUTION. 1996. *The Basic Provisions of the Constitution of the Republic of South Africa, 1996, Made Easy for Learners*. Available from: http://www.justice.gov.za/legislation/constitution/FoundingProvisions_Constitution.pdf (Accessed: 21 May 2018)

FREIGHT TRANSPORT [ONLINE]. 2017. Freight Transport Analysis and Forecasting. Available from: http://www.transport.gov.za/documents/11623/39906/7_FreightTransport2017.pdf/a3f7cb55-8d77-4eea-b665-4c896c95a0d8 [Accessed: 25/05/2018]

GARDNER, T.J., & Anderson, T.M. 2011. *Criminal law*. 11th ed. United Kingdom: Wadson.

GEASON, S. & WILSON, P.R. 1988. *Crime Prevention Theory and Practice*. Available on: file:///C:/Users/User.ZAB9110043-DEPT/Downloads/cptap.pdf [Accessed: 22/05/2018]

GIBSON, S. 2016. *Writing the Theoretical Framework Chapter*. Available from: http://ccms.ukzn.ac.za/Libraries/staff-documents/Theoretical_Framework_handout.sflb.ashx [Accessed: 22/05/2018]\

GOOGLE SEARCH. 2018 *Railway*. Available from: https://www.google.co.za/search?ei=eawrW9KlHOiCgAa0_bLwBg&q=railway+meaning&oq=r

ailway+meaning&gs_l=psy-ab.3..0i71k1l8.0.0.0.99617.0.0.0.0.0.0.0.0..0.0....0...1c..64.psy-ab..0.0.0....0.w9LQbPeoOiw (Accessed: 21/06/2018)

GOOGLE SEARCH. 2018. *Combat*. Available from: https://www.google.co.za/search?q=combat+meaning&oq=combat+meaning&aqs=chrome..69i57j69i60j0l4.5543j1j1&sourceid=chrome&ie=UTF-8 (Accessed: 21/06/2018)

GOVERNMENT GAZETTE REPUBLIC OF SOUTH AFRICA [ONLINE]. 2009. ACT. Available from: https://www.saps.gov.za/resource_centre/acts/downloads/juta/shg_act_6_2009.pdf [Accessed: 15/09/2017]

GROBLER, H. & SCHENK, C.J. 2009. *Person centered communication process, theory and practice*. 3rd ed. Cape Town: Oxford University Press.

HEPBURN, A. 2013. *Copper theft: a worldwide, and sometimes lethal, epidemic*. Available from: http://www.macleans.ca/economy/business/copper-theft-a-worldwide-and-sometimes-lethal-epidemic/ [Accessed: 4/12/2017]

HONORINE, S. 2013. *South Africa Cable Theft Hampers Economy*. Available from: https://www.voanews.com/a/cable-theft-hampers-economy-in-south-Africa/1603668.html [Accessed: 19/10/2017]

HOUSE OF COMMONS [ONLINE]. 2012. Scrap Metal Dealers Bill 9 of 2012-13 RESEARCH PAPER 12/39. Available from: file:///C:/Users/User.ZAB9110043-DEPT/Downloads/RP12-39.pdf [Accessed: 02/03/2018]

INDEPENDENT ONLINE. 2013. Cable theft caused train accident. [Online]. Available from: https://www.iol.co.za/news/cable-theft-caused-train-accident-1462255 [Accessed: 19/03.2018]

INDEPENDENT ONLINE. 2016. Steal cables at your peril. [Online]. Available from: https://www.iol.co.za/business-report/economy/steal-cables-at-your-peril-2028954 [Accessed: 30/ 05 2018]

INSTITUTE FOR SECURITY STUDIES, [ONLINE]. 2014. Cable theft is strangling SA's economy: can we escape the noose?. Available from: https://issafrica.org/events/cable-theft-is-strangling-sas-economy-can-we-escape-the-noose [Accessed: 19/10/2017]

INTERNATIONAL UNION OF RAILWAYS [ONLINE]. 2013. Metal Theft on the Railways. Available from: https://uic.org/IMG/pdf/security_leaflet-metaltheft2013-pages.pdf [Accessed: 19/10/2017]

KUBRIN, C.E., STUCKY, T.D., & KROHN, M.D. 2009. *Researching theories of crime and deviance*. New York: Oxford University Press.

KUMAR, R. 2011: *Research methodology: A step guide for beginners.* 3rd ed. London: Sage.

KUMAR, R. 2014. *Research methodology: A step-by-step guide for beginners.* 4th ed. Sage Publications.

LABAREE, R.V. 2009. *Organizing Your Social Sciences Research Paper: 5. the Literature Review*. Available from: http://libguides.usc.edu/writingguide/literaturereview [Accessed: 24/11/2017]

LEE, D. 2013. *Dramatic drop in copper cable theft across the UK*. Available from: https://www.bbc.com/news/technology-21229762 [Accessed: 07/06/2018]

LILLY, J.R., CULLEN, F.T & BALL, R.A. 2011. Criminological context and consequences theory. 5th edition. United Kingdom: SAGE.

LITCHMAN, M. 2014. *Qualitative research for social science*. London: Sage.

MAKHUBU, N. 2013. *Copper theft costs SA R7bn, hits city hard.* Available from: https://www.iol.co.za/pretoria-news/copper-theft-costs-sa-r7bn-hits-city-hard-1468118 [Accessed: 04/12/2017]

MALULEKE, W. 2014. *Perspectives on stock theft prevention in the Giyani policing area of Limpopo province.* Unpublished (M.A) Dissertation in Policing, Department of Safety and Security Management, Faculty of Humanities, Tshwane University of Technology, Pretoria.

MAREE, K. 2010. *First steps in research.* 6th ed. Pretoria: Van Schaik.

MARSHALL, C. & ROSSMAN, G.B. 2016. *Designing qualitative research*. 6thed. London: Sage.

MASEEMA, P. 2013. *Cable theft solution – technical or socio-economic?* Available from: http://www.eandcspoton.co.za/resources/docs/Cables/Cable_theft_solution_technical_or_socio-economic.pdf [Accessed: 19/10/2017]

MATTHEW, P.J., ASHBY, K.J., BOWERS, H.B., AND TAKU, F. 2014. *The when and where of an emerging crime type: The example of metal theft from the railway network of Great Britain.* Available from: https://link.springer.com/content/pdf/10.1057/sj.2014.43.pdf [Accessed: 04/11/2017]

MAWENI, V.K. 2016. *OLD VERSUS NEW: A South African Police Service culture attitudinal comparison.* Published thesis (M.A). University of KwaZulu-Natal, School of Applied Human Sciences.

METAL BULLETIN [ONLINE]. 2018. FORECAST: Copper price to hit $8,000 per tonne in 2018 – Goldman. Available from: https://www.metalbulletin.com/Article/3785039/FORECAST-Copper-price-to-hit-8000-per-tonne-in-2018-Goldman.html [Accessed: 07/06/2018]

METRORAIL. [ONLINE]. 2010. Durban Railway Map. Available from: http://www.metrorail.co.za/maps/DBN_RailMap.pdf [Accessed: 24/05/2018]

MILMO, D. & CARTER, H. 2010. *Thieves on the line: copper raids on railways hit record levels.* Available from: https://www.theguardian.com/uk/2010/sep/28/railway-crackdown-copper-theft [Accessed: 04/12/2017]

MINISTRY OF CHILDREN AND YOUTH SERVICES. [ONLINE]. 2016. Review of the Roots of Youth Violence: Literature Reviews Volume 5, Chapter 3: Available from: http://www.children.gov.on.ca/htdocs/English/professionals/oyap/roots/volume5/chapter03_rational_choice.aspx [Accessed: 20/05/2018]

MIRO, F. [s.a]. *Routine Activity Theory*. Available from: https://onlinelibrary.wiley.com/doi/pdf/10.1002/9781118517390.wbetc198 [Accessed: 21/05/2018]

MJOLI, A CABLE THEFT RAILWAY PATROLLER. 2018. Interview. Durban. (Notes in possession of the researcher).

MMITSI, T.B. 2017. *AN ANALYSIS OF POLICE PUBLIC PARTNERSHIP FOR CRIME PREVENTION IN eTHEKWINI METROPOLITAN AREA, KWAZULU NATAL, SOUTH AFRICA.* Unpublished thesis (M.A).Tshwane University of Technology, Department of Safety and Security Management.

MOFOKENG, J.T. 2010. *Anti-fraud training in the South African Police Service (SAPS): A strategic perspective.* Unpublished Doctor Technologiae: Policing Thesis, Tshwane University of Technology, Pretoria.

MORGAN, D.L. 1997. *Focus groups as qualitative research*. California: Sage Publications.

MOUTON, J. & MARAIS, H.C. 1990. *Basic concepts in the methodology of the social sciences.* Pretoria: Human Sciences Research Council.

MPHATHENI, M.R. 2016. *Community perceptions of child sexual assault: Case study of Ngangelizwe Community in Mthatha.* Published thesis (M.A). University of KwaZulu-Natal, Faculty of Humanities, Development and Social Science.

MTSHEDE, S.T. 2015. *Audience perception of portrayals of women in selected Lokshin Bioskop films.* Unpublished thesis (M.A). University of KwaZulu-Natal, School of Applied Human Sciences.

NAGIN, D.S. 2007. *Moving choice to center stage in criminological research and theory. Criminology,* 45, 259–272.

NARAYAN, R. & REGAN, J. 2013. Copper theft of earthing systems: a worldwide problem. Available from: http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6663267 [Accessed: 04/12/2017]

NATIONAL ESTUARINE RESEARCH RESERVE ASSOCIATION, [ONLINE]. (s.a), Key Informant Interviews. Available from: https://www.nerra.org/nerra-strategies/key-informant-interviews/ [Accessed: 25/05/2018]

NEL, J.A. AND VAN WYK, H. 2013. Victim empowerment in South Africa. In Peacock, R. (ed). *Victimology in South Africa.* 2nd ed. (pp. 77-95). Pretoria: Van Schaik.

NETWORK RAIL [ONLINE]. 2017. Cable theft. Available from: https://www.networkrail.co.uk/running-the-railway/looking-after-the-railway/delays-explained/vandalism-and-trespass/cable-theft/ [Accessed: 25/05/2018]

NEUMAN, L.W. 2011. *Social research methods: Qualitative and quantitative approaches*. 7th ed. Boston, MA: Allyn and Bacon.

NEWS 24 [ONLINE]. 2002. R26 in stolen wire = 24 lives. Available from: https://www.news24.com/xArchive/Archive/R26-in-stolen-wire-24-lives-20020214 [Accessed: 02/03/2018]

NEWS 24 [ONLINE]. 2014. Weakness in justice system with cable theft – Nel. Available from: https://www.news24.com/SouthAfrica/News/Weakness-in-justice-system-with-cable-theft-Nel-20141006 [Accessed: 15/02/2018]

NEWS 24 [ONLINE]. 2017. Law enforcement given more powers in fight against cable theft. Available from: https://www.news24.com/SouthAfrica/News/law-enforcement-given-more-powers-in-fight-against-cable-theft-20170215 [Accessed: 30/ 05/ 2018]

NEWS 24 [ONLINE]. *2018*. IN DEPTH: Inside Metrorail's cable theft and commuter crisis. Available from: https://www.news24.com/SouthAfrica/News/in-depth-inside-metrorails-cable-theft-and-commuter-crisis-20180222 [Accessed: 02/03/2018]

NEXANS [ONLINE]. 2012. Nexans awarded first CORE-TAG® anti-theft cable technology contract by SNCF for the network of Réseau Ferré de France (RFF).Available from: https://www.nexans.com/Corporate/2012/1211_Core_tag_RFF_GB.pdf [Accessed: 01/06/2018]

NISBETT, R.E., & COHEN, D. 1996. *Culture of honor: The psychology of violence in the South.* Boulder, CO: Westview Press.

OSTERBURG, J.W. & WARD, R.H. 2010. *Criminal Investigation. A Method for Reconstructing the Past*. Available from: https://www.sciencedirect.com/science/book/9781422463284 [Accessed: 06/06/2018]

PATERNITI, D.A. 2012. *Qualitative Research Methods*. Centre for Health Services Research in Primary Care: Departments of Internal Medicine & Sociology Available from: www.ucdmc.ucdavis.edu/publish/facultypdf/search/?p=626 [Accessed: 05/03/2018].

POLITY [ONLINE]. 2015. SACCI: Peggy Drodskie on copper theft barometer April 2015. Available from: http://www.polity.org.za/article/sacci-peggy-drodskie-on-copper-theft-barometer-april-2015-2015-06-04 [Accessed: 23/05/2018]

PRETORIUS, Z. AND LOUW, B. 2005. *Victim empowerment and support in South Africa*. In Davis, L. and Snyman, R. *Victimology in South Africa*. (pp. 74-99). Pretoria: Van Schaik.

PRETORIUS. W.L. 2012. *A criminological analysis of copper cable theft in Gauteng*. Master of Arts in Criminology Dissertation, University of South Africa.

RAIL TECHNOLOGY [ONLINE]. 2017. Cable theft still plagues the rail industry. Available from: https://www.railway-technology.com/features/featurecable-theft-still-plagues-the-rail-industry-5932428/ [Accessed: 15/05/2018]

RICHARD, W.M. 2014. From rationality to equality: three stages of doubt. *Journal of Ethics*, Vol 18.

ROSENBAUM, D.P. 2002. Evaluating multi-agency anti-crime partnerships: theory, design, and measurement issues. *Crime Prevention Studies*, Vol 14.

ROSSMO, D.K. & SUMMERS, L. 2015. *Routine Activity Theory in Crime Investigation*. Available from: https://link.springer.com/chapter/10.1057%2F9781137391322_3 [Accessed: 20/05/ 2018]

SANDERS, M. 2011. *Railway cable thefts reach 'epidemic' proportions*. Available from: https://www.channel4.com/news/railway-cable-thefts-reach-epidemic-proportions [Accessed: 24/11/2017]

SCHEEPERS, D. 2013. *Crime: an ongoing problem causing a major irritation*. Available from: http://www.securitysa.com/7659a [Accessed: 26/05/2018]

SHANDU, S.N. 2017. *Exploring perceptions of South African Police service investigators and national prosecuting authority prosecutors on personal income tax fraud in Durban, KwaZulu-Natal.* Unpublished thesis (M.A), University of KwaZulu-Natal, School of Applied Human Sciences.

SIDEBOTTOM, A ASHBY, M & JOHNSON, S.D. 2014. Copper Cable Theft: Revisiting the Price-Theft Hypothesis. Available from: http://irep.ntu.ac.uk/id/eprint/10275/1/221006_PubSub2746_Ashby.pdf (Accessed: 28/10/ 2017)

SIDEBOTTOM, A. 2012. *Metal theft.* Available from: http://www.ucl.ac.uk/jdibrief/crime/metal-theft [Accessed: 19/10/2017]

SOUTH AFRICAN GOVERNMENT [ONLINE]. 2017. The aims of the National Crime Prevention Strategy. Available from: https://www.gov.za/documents/national-CRIME-prevention-strategy-summary#2 [Accessed: 15/08/2017]

TERRE BLANCHE, M., DURRHEIM, K. & PAINTER, D. 2006. *Research in practice: Applied methods for the social sciences*. Cape Town: University of Cape Town Press.

TERRE BLANCHE, M.J., DURRHEIM, K., PAINTER, D. 2014. *Research in practice: Applied methods for social science.* Juta: Cape Town.

THE BASIC PROVISIONS OF THE CONSTITUTION [ONLINE]. 1996. INTRODUCTION: WHAT IS A CONSTITUTION? .Available from: http://www.justice.gov.za/legislation/constitution/FoundingProvisions_Constitution.pdf [Accessed: 30/05/2018]

THOMAS, E., & MAGILVY, J.K. [2011]. *Qualitative rigour or research validity in qualitative research*. Available from: https://www.ncbi.nlm.nih.gov/pubmed/21439005 [Accessed: 5/03/ 2018]

TIMES LIVE. [ONLINE]. 2018. Prasa condemns R10-million arson attack at Durban stations. Available from: https://www.timeslive.co.za/news/south-africa/2018-02-01-prasa-condemns-r10-million-arson-attack-at-durban-stations/ [Accessed: 04/02/2018]

TORKELSON, E. 2010. *Who Profits from Copper Theft?* Available from: https://issafrica.org/iss-today/who-profits-from-copper-theft [Accessed: 24/11/2017]

TRANSNET FREIGHT RAIL [ONLINE]. 2010. Overhead Cable Theft Causes Serious Disruptions to Rail Service. Available from: http://www.spoornet.co.za/Website/mediareleases2010.html [Accessed: 24/11/2017]

TRANSNET FREIGHT RAIL, [ONLINE]. 2010. Railway safety dangerous misconduct. Available from: http://www.transnetfreightrail-tfr.net/MediaSafety/Pages/Dangerous-misconduct.aspx [Accessed: 19/10/2017]

UNITED KINGDOM LEGISLATION [ONLINE]. 2013. Scrap Metal Dealers Act. Available from: http://www.legislation.gov.uk/ukpga/2013/10/enacted [Accessed: 30/ 05/2018]

VAN NIEKERK, A. 2015. *The analysis of a cell phone record as a source of intelligence in the investigation of copper cable theft.* Pretoria: University of South Africa.

VAN RENSBURG, G.H. 2010. *Research in social sciences: Only study guide for RCS 2601*. Pretoria: University of South Africa.

VECTOR. 2013. *The proposed Scrap Metal Dealer Act (South Africa).* Available from: http://www.ee.co.za/article/electrical-inspector-169-12-the-proposed-scrap-metal-dealer-act-south-africa.html. [Accessed: 31/05/2018]

VOCABULARY.COM. 2018. [Online]. Combat. Available from: https://www.vocabulary.com/dictionary/combat (Accessed: 21/06/2018)

VOSLOO, H. AND MHAULE, D. 2016. *Metal Theft in South Africa:* Available from: http://www.tdworld.com/substations/metal-theft-south-africa [Accessed: 19/10/2017]

WELMAN, C., KRUGER, F & MITCHELL, B. 2005. *Research methodology*. Cape Town: Oxford University Press Southern Africa.

WIGDOROWITZ, M. [ONLINE]. 2016. *Six Simple Steps to Conduct a Thematic Analysis.* Available from: https://jvrafricagroup.co.za/six-simple-steps-to-conduct-a-thematic-analysis/ (Accessed: 12/12/2017)

WIKIPEDIA SEARCH. 2018. Combat. [Online]. Available from: https://en.wikipedia.org/wiki/Combat (Accessed: 21/06/2018)

WILSON, J.Q., & HERRNSTEIN, R.J. 1985. *Crime and human nature.* New York: Simon & Schuster.

WYSE, S.E. 2011. *What's the difference between qualitative and quantitative research*?. https://www.snapsurveys.com/blog/qualitative-vs-quantitative-research/ [Accessed: 27/09/2017]

LIST OF ANNEXURES

ANNEXURE A: INTERVIEW SCHEDULE GUIDE (PRASA OFFICIALS)

1. What is the nature of cable theft in Durban railway stations?
2. What are the contributory factors to cable theft in Durban railway stations?
3. What are the current strategies employed by PRASA in combating cable theft in Durban railway stations? (Please elaborate on your answer)
4. What are the existing challenges faced by PRASA in combating cable theft in Durban?
5. What is the *Modus Operandi* used by cable thieves in Durban railway stations?
6. Is current legislation adequate to assist PRASA in combating cable theft in Durban railway stations? (Please elaborate on your answer)
7. What are the consequences of cable theft for PRASA in Durban railway stations?
8. Can cable theft be combated effectively by PRASA in Durban railway stations? (Please elaborate on your answer)
9. How effective are the methods and techniques used by PRASA in combating cable theft in Durban railway stations?
10. How is the relationship of PRASA with other relevant stakeholders in combating cable theft in Durban railway stations?
11. Any other comments you would like to make regarding cable theft in the Durban railway stations?

ANNEXURE B: RESEARCH CONSENT FORM TO CONDUCT THE STUDY FROM THE INSTITUTION (UKZN) – INFORMATION AND CONSENT FORM FOR THE PARTICIPANTS

INFORMED CONSENT RESOURCE TEMPLATE

Information Sheet and Consent to Participate in Research

Date: 19 September 2017

To whom it may concern

My name is Liso Nobanda. I am a master's student at the University of KwaZulu-Natal in Criminology Department. I am conducting research for my master's dissertation with the title "The combating of cable theft in Durban railway stations". My contact number is 073 856 4674/062 296 9530 and my email address is lisonobanda@gmail.com

You are being invited to consider participating in a study that involves research on combating cable theft in the Durban railway stations. The aim and purpose of this research is to have an in-depth understanding on the combating of cable theft in Durban railway stations. The study is expected to enrol 20 cable theft investigators. It will involve the following procedures: Participants will be asked to take part in face-to-face individual interviews to maintain confidentiality and privacy. Participants will respond to questions based on the title. The duration of your participation if you choose to enrol and remain in the study is expected to be 40 to 55 minutes long but you will not be forced to reach this time if you decide not to. The research is only for academic purposes.

The study will provide no direct benefits to participants as participation is voluntary.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number__ HSS/2002/017M).

In the event of any problems or concerns/questions you may contact the researcher at 073 856 4674/062 296 9530 or the UKZN Humanities & Social Sciences Research Ethics Committee as follows:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION
Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604557- Fax: 27 31 2604609
Email: HSSREC@ukzn.ac.za

Your participation in the project is voluntary. This means you may refuse to participate or withdraw your participation at any time during the interview. You will not be forced to continue with the interview if you decide to withdraw, and no one will blame you. The research is for academic purposes only.

The information that you share will be confidential and will be treated as such all the time. The name of the participant will not be mentioned, instead you will be called 'participants'. The information that could lead to you being traced back will be treated strictly confidentially. The data collected is important for the dissertation but still it will be stored in a safe place where no one will be allowed to get to it, and after five years the data will be safely disposed.

CONSENT (Edit as required)

I …… have been informed about the study entitled (provide details) by (provide name of researcher/fieldworker).

I understand the purpose and procedures of the study (add these again if appropriate).

I have been given an opportunity to answer questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

I have been informed about any available compensation or medical treatment if injury occurs to me as a result of study-related procedures.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at (073 856 4674).

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION
Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001
Durban
4000
KwaZulu-Natal, SOUTH AFRICA
Tel: 27 31 2604557 - Fax: 27 31 2604609
Email: HSSREC@ukzn.ac.za

Additional consent, where applicable

I hereby provide consent to:

Audio-record my interview / focus group discussion YES / NO
Video-record my interview / focus group discussion YES / NO
Use of my photographs for research purposes YES / NO

_____ _____

Signature of Participant **Date**

_____ _____

Signature of Witness **Date**
(Where applicable)

_____ _____

Signature of Translator **Date**
(Where applicable)

ANNEXURE C: LETTER TO REQUEST PERMISSION TO CONDUCT RESEARCH TO PRASA

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

05 December 2017

Mr Liso Nobanda 217078819
School of Applied Human Science
Howard College Campus

Dear Mr Nobanda

Protocol reference number: HSS/2002/017M
Project title: The combating of cable theft in the Durban railway station.

Expedited Approval

In response to your application dated 10 October 2017, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL.**

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

Please note: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

.....
Dr Shamila Naidoo (Deputy Chair)

/px

cc Supervisor: Ms Vuyelwa K Maweni and Dr W Maluleke
cc Academic Leader Research: Dr Jean Steyn
cc School Administrator: Ms Ayanda Ntuli

Humanities & Social Sciences Research Ethics Committee
Dr Shenuka Singh (Chair)
Westville Campus, Govan Mbeki Building
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Telephone: +27 (0) 31 260 3587/8350/4557 **Facsimile:** +27 (0) 31 260 4609 **Email:** ximbap@ukzn.ac.za / snymanm@ukzn.ac.za / mohunp@ukzn.ac.za
Website: www.ukzn.ac.za

ANNEXURE D: LETTER TO REQUEST PERMISSION TO CONDUCT RESEARCH TO PRASA: PROTECTION SERVICES (DURBAN STATION) AND APPROVAL

REQUESTING EMAIL TO PRASA

LISO NOBANDA <lisonobanda@gmail.com>

to elliot.conco

Good Morning PRASA Protection Services

I am Liso Nobanda (st no: 217078819), a UKZN student requesting to conduct a research with the PRASA cable th
My research proposal tittle is: The combating of cable theft in Durban railway stations.

If my request becomes successful could you please email me the gate keepers' letter.

Please find the attached certified student card and ID.

Attachments area

Elliot Conco <Elliot.Conco@prasa.com>

to me

Hi Mr Nobanda

Your request has reached my office. Please be informed that you are welcome provided that you will notice me i
you are ready to come. For sure you will be accommodated.

Thanks

Elliot Conco
Tel. (w) 031 8130348

ANNEXURE E: EDITOR'S DECLARATION

8 Nahoon Valley Place

Nahoon Valley

East London

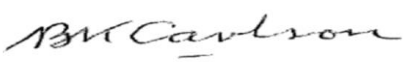
5241

27 June 2018

TO WHOM IT MAY CONCERN

I hereby confirm that I have proofread and edited the following master's thesis using the Windows 'Tracking' system to reflect my comments and suggested corrections for the student to action:

The combatting of cable theft in Durban railway stations by LISO NOBANDA, a thesis submitted in fulfilment of the requirements for the degree of Master of Social Science in Criminology and Forensics Studies in the School of Applied Sciences, College of Humanities, at the University of KwaZulu-Natal.



Brian Carlson (B.A., M.Ed.)
Professional Editor

Email: bcarlson521@gmail.com

Cell: 0834596647

Disclaimer: Although I have made comments and suggested corrections, the responsibility for the quality of the final document lies with the student in the first instance and not with myself as the editor.

BK & AJ Carlson Professional Editing Services