

A criminological examination of the use of cyberspace to traffic drugs in Durban, South

Africa

by

# Trevonia Nihal

A research dissertation submitted in fulfilment of the requirements for the degree of:

Master of Social Science (MSS) in Criminology and Forensic Studies

In the

Discipline of Criminology and Forensic Studies School of Applied Human Sciences

At the

**University of KwaZulu-Natal (Howard College Campus)** 

Supervisor: Dr Ephraim Kevin Sibanyoni

November 2018

#### **ABSTRACT**

This study focused on the use of cyberspace to traffic drugs in Durban, South Africa. The study comprised four objectives, which were: to determine how cyberspace is used as a tool to traffic drugs in Durban, South Africa; to determine the beneficiaries of online drug trafficking; to investigate the current laws and policies that South Africa has in place to combat drug trafficking via cyberspace and to determine which drugs are most likely to be sold online. The study employed an exploratory research design with a qualitative research method. The data was collected from a sample consisting of eight respondents by using the purposive sampling technique. The researcher collected data using semi-structured interviews and the collected data was analysed through thematic content analysis. The findings depicted that cyberspace is used as a tool to traffic drugs in Durban by providing cyberspace users with the platform to engage in unlimited and secure communication. The use of Virtual Private Networks and The Onion Ring makes it exceptionally difficult to trace cybercriminals. The study found that the youth benefit the most from drugs being available online. The Cybersecurity Bill is believed to be the most recent development in South Africa's legislature to combat online drug trafficking. Cocaine and ecstasy were identified as the drugs most likely to be sold online. The researcher recommends that there needs to be more awareness around cybercrime and, more particularly, drug trafficking via cyberspace. In addition, law enforcement officers should be provided with more training in order that they are equipped to handle drug trafficking via cyberspace in Durban effectively and efficiently.

**Keywords:** cyberspace, cybercrime, drugs, drug trafficking, cryptomarkets, cryptocurrency

### **DECLARATION**

I, Trevonia Nihal, student number (213503014), solemnly declare that this study entitled "A criminological examination of the use of Cyberspace to traffic drugs in Durban, South Africa" is the result of my own effort through the professional guidance of my supervisor and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references. I also declare that of the figures configured in this study, some were adopted and some have been created by the researcher using SmartArt. Those that are adopted have been referenced accordingly.

Researcher:	Ms T Nihal		
Signature	Date		
Supervisor:	Dr E.K. Sibanyoni		
Signature	Date		

#### **DECLARATION ON PLAGIARISM**

- (i) I am aware that plagiarism is defined as the inclusion of another's or other's ideas, writings, works, discoveries and inventions from any source in an assignment or research output, without the due, correct and appropriate acknowledgements to the author(s) or source(s) in breach of the values, conventions, ethics and norms of the different professional, academic and research disciplines and includes unacknowledged copying from intra- and internet and peers/fellow students.
- (ii) I have duly and appropriately acknowledged all references and conformed to avoid plagiarism.
- (iii) I have made use of the citation and referencing style stipulated by my supervisor.
- (iv) This submitted work is my own.
- (v) I did not and will not allow anyone to copy my work and present it as his/her own.
- (vi) I am committed to uphold academic and professional integrity in the academic/research activity.
- (vii) I am aware of the consequences of engaging in plagiarism.

Signature	Date

## Acknowledgments

A study that is as intense as this one includes the help of several individuals who cannot all be named. It is close to impossible to single out each person who has supported and encouraged me for the duration of this study. However, there are some individuals who have assisted me to an extent that this study would not have been completed if it were not for their help. To these individuals, I extend my appreciation and many thanks for their contribution to this study.

Firstly, I am extremely grateful to my family. This research has seen good days and bad, through all of which you have supported and comforted me. For this and everything else that you do on a constant basis, I extend my unwavering gratitude.

Secondly, I wish to thank my supervisor, Dr Sibanyoni. Your assistance and continued support is remarkable, to say the least. You have presented me with critical and constructive feedback at all stages of this study. You helped me when I struggled and uplifted me when we hit bumps in the road to completing this study. Thank you for always being approachable and professional. You are always available to have research discussions with and you are always there to provide new angles through which to view any problem. For the countless drafts and 2–3am text messages regarding research, thank you! Your attention to detail and constant concern for not only myself but for every student you teach is amazing. I have learnt a great deal from you over the time that we have worked together for this study. In the truest of words, I could not have asked for a better supervisor!

I also express gratitude to all of the respondents who participated in this study. To the police officers of the cybercrime unit, I extend my appreciation and thanks. Thank you for taking the time to participate in this study. The knowledge and experience that each of you hold is admirable and I hope that this study assists law enforcement in their future endeavours to curb cybercrime.

Thank you to the Safety and Security Sector Education and Training Authority (SASSETA) for awarding me with a full bursary which funded this research. I would also like to extend my thanks to the South Africa Police Services: Research Division for all their assistance and for approving gatekeeper authorisation to conduct this research study.

To all the individuals whom I have not mentioned but who nevertheless helped me, even the slightest, I want to say thank you. Fulfilling one of my dreams to complete this study would not have been possible without your assistance.

# **Dedication of the study**

To my family: my mother, Prissie; my father, Patrick and my brothers, Prelan and Kaylan.

Thank you for your unconditional support, for allowing me to commit to furthering my studies without any hassles, for guiding me, encouraging me and lifting me up during those days that were too tough to get through. Your understanding (especially my mum) throughout this study will forever be appreciated.

# **ACRONYMS**

SAPS- South African Police Services

TOR- The Onion Ring

VPN- Virtual Private Network

LSD- Lysergic Acid Diethylamide

Freelance Editors SA Impala Bend Ashburton KwaZulu-Natal 3201 South Africa Cell: 083 659 4047 Email: freelanceeditorssa@gmail.com Website: www.freelanceeditors.co.za/ 26-11-2018 To whom it may concern This is to confirm that I, David Kaplan, a professional editor and proofreader, have edited Trevonia Nihal's research study as per protocol and, furthermore, that I believe it to be of a very high standard. Kind regards,

David Kaplan

# TABLE OF CONTENTS

Number	Content	Page
		number
	Abstract	i
	Declaration	ii
	Declaration on plagiarism	iii
	Acknowledgement	iv
	Dedication of the study	vi
	Acronyms	vii
	Editor's letter	viii
	Table of contents	ix
	List of figures	xvi
	CHAPTER ONE: GENERAL ORIENTATION	1
1.1	Introduction	1
1.2	Background to the study	1
1.3	Statement of the problem	3
1.4	Research questions and objectives of the study	4
1.4.1	Research questions	4
1.4.2	Objectives of the study	4
1.5	Significance of the study	5
1.6	Conceptualisation and operationalisation of key concepts	5
1.6.1	Cyberspace	6

1.6.2	Cybercrime	6
1.6.3	Drug trafficking	6
1.6.4	Drugs	7
1.6.5	Cryptomarket	7
1.6.6	Cryptocurrency	7
1.7	Research methods	8
1.7.1	Research design	8
1.7.2	Sampling	9
1.7.3	Data collection	10
1.7.4	Data analysis	10
1.8	Chapter layout and structure	10
1.9	Conclusion	12
	References	13
	CHAPTER TWO: LITERATURE REVIEW	16
2.1	Introduction	16
2.2	The extent of drug abuse and drug trafficking	16
2.3	The various webs	18
2.3.1	The surface web	18
2.3.2	The deep web	19
2.3.3	The dark web	19
2.4	The various types of sites that are used to traffic drugs	21
2.4.1	Silk Road	21

2.4.2	The Agora Marketplace	24
2.4.3	AlphaBay	25
2.5	How are sites on the dark web accessed/located?	26
2.5.1	Virtual Private Network (VPN)	27
2.5.2	The Onion Router (TOR) – what is TOR and what is it used for?	27
2.6	Cryptocurrency	29
2.7	The types of drugs that are sold on the dark web	31
2.7.1	Class A	31
2.7.1.1	Heroin	31
2.7.1.2	Morphine	32
2.7.1.3	LSD	33
2.7.1.4	Cocaine	34
2.7.1.5	Ecstasy	36
2.7.1.6	Methamphetamine	37
2.7.2	Class B	38
2.7.2.1	Amphetamine	38
2.7.2.2.	Barbiturates	39
2.7.2.3	Cannabis	40
2.7.3	Class C	41
2.7.3.1	Ketamine	41
2.7.3.2	Tranquilizers	42

2.7.3.3	Sports drugs	43
2.8	The beneficiaries of drug trafficking via cyberspace	44
2.9	South African legislature and policies to combat drug trafficking via cyberspace	45
2.9.1	The Cybercrime and Cybersecurity Bill	45
2.9.2	The Drug and Drug Trafficking Act No. 140 of 1992	47
2.9.2.1	Overview of the act	47
2.9.2.2	What actions are considered illegal according to the act?	47
2.9.2.3	What sort of information has to be reported?	48
2.9.2.4	How should investigations be reported?	48
2.9.2.5	What are the penalties for committing a drug-related offence in South Africa?	48
2.9.3	The Medicines and Related Substances Control Act No. 90 of 1997	49
2.10	Conclusion	51
	References	52
	CHAPTER THREE: THEORETICAL FRAMEWORK	61
3.1	Introduction	61
3.2.1	The Classical School of Thought	61
3.2.2	Justification for the use of the Classical School of Thought	66
3.2.3	Application of the Classical School of Thought to drug trafficking via cyberspace	66

3.3.1	The Strain Theory	69
3.3.2	Merton's typology of individual adaptations to anomie	72
3.3.3	Justification for the use of the Strain Theory	74
3.3.4	Application of the Strain Theory to online drug trafficking	74
3.4	Conclusion	78
	References	79
	CHAPTER FOUR: RESEARCH METHODS	82
4.1	Introduction	82
4.2	Nature of the study	82
4.3.1	Research design	83
4.3.2	Exploratory research design	84
4.4	Population of the study	85
4.5	Area of the study	85
4.6	Sampling	86
4.7	Data collection	89
4.8	Research instrument	89
4.9	Administration of the interview schedule	90
4.10	Data analysis	91
4.11	Ethical consideration	92
4.12	Limitations of the study	92
4.13	Solutions to the limitations of the study	92

4.14	Conclusion	93	
	References	94	
	CHAPTER FIVE: DATA ANALYSIS AND INTERPRETATION	97	
5.1	Introduction	97	
5.2	Brief overview of the methods and materials	98	
5.3	Data analysis	99	
5.4	Themes identified	100	
5.5	The understanding of the term "cyberspace"	100	
5.6	Cyberspace as a tool to traffic drugs in Durban, South Africa		
5.7	Cyberspace as a means to increase drug trafficking in 104  Durban		
5.8	The lack of awareness of drug trafficking via cyberspace 105 in Durban		
5.9	Reasons for online drug trafficking in Durban	107	
5.10	Harsher punishment as a means to deter online drug trafficking		
5.11	The beneficiaries of drug trafficking via cyberspace	112	
5.12	The most common drugs that are sold online	113	
5.13	The effectiveness of South African legislature and policies	114	
5.14	Conclusion	119	
	References	120	

CHAPTER SIX: DISCUSSION OF FINDINGS	122
Introduction	122
Objective one: to determine the use of cyberspace to	122
traffic drugs in Durban, South Africa	
Objective two: to determine the beneficiaries of drug	128
trafficking via cyberspace in Durban, South Africa	
Objective three: to investigate the laws and policies	132
surrounding drug trafficking via cyberspace in Durban,	
South Africa	
Objective four: to determine the various types of drugs	138
that are sold online via cyberspace	
Conclusion	143
CHAPTER SEVEN: CONCLUSION AND	144
RECOMMENDATIONS	
Conclusion	144
Challenges experienced during the study	146
Research questions	147
Research question one: how is cyberspace used to traffic	147
drugs in Durban, South Africa?	
Research question two: who are the beneficiaries of drug	149
trafficking via cyberspace in Durban, South Africa?	
Research question three: what are some of the laws and	150
policies that South Africa has in place to combat drug	
trafficking via cyberspace?	
	Introduction  Objective one: to determine the use of cyberspace to traffic drugs in Durban, South Africa  Objective two: to determine the beneficiaries of drug trafficking via cyberspace in Durban, South Africa  Objective three: to investigate the laws and policies surrounding drug trafficking via cyberspace in Durban, South Africa  Objective four: to determine the various types of drugs that are sold online via cyberspace  Conclusion  CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS  Conclusion  Challenges experienced during the study  Research question one: how is cyberspace used to traffic drugs in Durban, South Africa?  Research question two: who are the beneficiaries of drug trafficking via cyberspace in Durban, South Africa?  Research question three: what are some of the laws and policies that South Africa has in place to combat drug

7.3.4	Research question four: what are the various drugs that are being sold via cyberspace in Durban, South Africa?	151
7.4	Recommendations	151
	Appendix one	154
	Appendix two	156
	Appendix three	157
	Appendix four	158
	Appendix five	161

# LIST OF FIGURES

Figure	Description	Page number
Figure 1	Chapter structure and layout	12
Figure 2	Various layers of the internet	20
Figure 3	Silk Road drug market	23
Figure 4	Silk Road payment system	30
Figure 5	Various types of heroin	32
Figure 6	Various types of morphine	33
Figure 7	Various types of LSD	34
Figure 8	Cocaine in powder form	35
Figure 9	Ecstasy tablets in different sizes and shapes	36
Figure 10	Various forms of methamphetamine	38

Figure 11	Forms of amphetamines	39
Figure 12	Various forms of barbiturates	40
Figure 13	Various forms of cannabis	41
Figure 14	Various forms of ketamine	42
Figure 15	Various forms of tranquilisers	43
Figure 16	Sports drugs	44
Figure 17	The founding fathers of the	61
	Classical School of Thought	
Figure 18	The Strain Theory pioneer	69
Figure 19	Merton's typology of individual	73
	adaptation	
Figure 20	Map of Pretoria	86
Figure 21	Steps for effective data collection	97
	and analysis	
Figure 22	Various ways cyberspace is used to	127
	traffic drugs in Durban, South	
	Africa	
Figure 23	Beneficiaries of drug trafficking	131
	via cyberspace	
Figure 24	Various laws used in drug-related	134
	cases	
Figure 25	Types of drugs sold online	139
Figure 26	Bar graph showing the drugs that	142
	are most likely to be sold via	
	cyberspace	



#### **CHAPTER 1: GENERAL ORIENTATION**

#### 1.1 Introduction

Crime and criminality have been associated with humankind for as long as it has been reported and documented (Haelterman 2016). Crime has proven to be a continuous occurrence in many communities, if not all. Over the past few years, cybercrime and more specifically, drug trafficking via cyberspace, have become an increasingly prevalent issue in contemporary South Africa (Alfreds 2018). The importance of understanding the trafficking of drugs in South Africa has been necessary and crucial for many years. However, numerous projects that were conducted have only proven that the drug trade evolves continuously, if not every day (Rademeyer 2013). This research examines the use of cyberspace to traffic drugs in Durban, South Africa. The study examines how contemporary society has developed its criminal methods and the various issues surrounding this problem. A brief discussion on cybercrime and drug trafficking will serve as the contextual grounding from which the problem will be formulated. The rationale of the study will be presented according to the specific objectives of the study followed by a brief summary of the research methods and the various chapters of this research dissertation. Lastly, this chapter will discuss the key concepts of this study. This includes the definition of the key concepts that are to be operationalised within this study. The following section deals with the background of the study.

#### 1.2. Background of the study

Kardefelt-Winther (2014) suggests that the internet is an extremely useful tool. It allows individuals to do almost anything that they want and all in an instant (this ranges from online shopping to online banking and money transfers). Kardefelt-Winther (2014) goes further to state that the internet is "an open hub allowing millions of users the freedom to do as they please and when they please, whether they are aware of the risks involved or not". However, with the internet having such a hold over society, it has changed the way people communicate and interact with each other. In short, the internet has revolutionised the world. A prime example to illustrate this point is that prior to the internet being so readily available, drug trafficking took place almost solely on the streets, but this is no longer the case as many people now turn to the internet to purchase their drugs.

Online drug trafficking has come a long way since the rise of Silk Road in 2013. A few years ago, online drug trafficking was not heard of but now the internet has become a tool and place for criminal activities such as drug trafficking via cyberspace (Elkhourly 2017). According to the 2016 Global Drug Survey, 58% of people reported buying drugs online. The Global Drug Survey of 2017 reported that one in four (25%) of those who used drugs in the past year had bought their drugs from underground marketplaces on the dark net (Global Drug Survey 2017). Since 2014, the number of users who purchased their drugs online has increased from 12% to 25% (Southwick 2018). Elkhourly (2017) stated in her article that the reason for such an increase could be the rise in the awareness of encrypted browsers on the deep web as well as crytpocurrencies such as Bitcoin that are difficult for law enforcement to track.

Hoorens (2016) highlights that online drug trafficking may be an aid for offline drug trafficking (buying drugs on the street). According to Hoorens (2016), compared to the days of Silk Road in 2013, the number of transactions of illegal drugs on cryptomarkets has tripled and the revenue has doubled. The author goes further to state that this provides proof that drugs are being bought in bulk online only to be sold on the street. According to Monama (2018), 25% of total drug transactions on cryptomarkets during January 2016 were of a value of more than 1,000 US dollars (indicating that they were purchased online to be sold on the street), while the majority of drugs sold on cryptomarkets under 100 US dollars in value was 18% (most likely for personal use). The findings of Monama (2018) confirm the statement of Hoorens (2016), in that a larger percentage of drugs were bought in bulk only to be sold to people on the street.

A Global Drug Survey conducted in 2009 stated that only 5% of the respondents bought drugs online. However, when the survey was conducted in 2015, this number increased to 25% of respondents who purchased drugs online. According to the World Health Organization's drug statistics on South Africa, 15% of the population have a drug addiction. Furthermore, the United Nations' statistics revealed that South Africa is ranked fourth globally for drug offence cases per 100,000 people. According to Fichardt (2015), South Africa had endured the most cyber-attacks ever recorded in the last six weeks leading up to the security summit that was held in Johannesburg in May 2016. He maintains that cyber-attacks are not aimed at any specific sector *per se* but are rather exceptionally adaptive and money driven. According

to Rall (2017), South Africa is the largest market for illicit drugs in sub-Saharan Africa, with the use and trafficking of drugs increasing steadily. In June 2017, 963 kgs of cocaine (worth roughly 23 million US dollars) was seized in Cape Town, South Africa (Rall 2017). This is one of the largest seizures in the country to date.

Despite the seizures of drugs, there is still much work that needs to be done in curbing drug trafficking. Law enforcement has worked tirelessly to ensure that the above-mentioned drug busts were successful. However, they have not fully taken on the task of apprehending drug traffickers who are making use of cyberspace as a new platform to conduct their illegal trade. This study fills the gap in what is already known about drug trafficking by providing greater knowledge into drug trafficking via cyberspace in Durban and will cover relevant issues surrounding the phenomenon. In the section to follow, the researcher will be discussing the statement of the problem.

## 1.3. Statement of the problem

The Global Drug Survey reported that 22% of cyberspace users had used cyberspace to buy drugs online. The number of cyberspace users engaging in drug trafficking via cyberspace is alarming (as provided above by the Global Drug Survey). Despite drug trafficking being a constant topic in South Africa, there is limited research that thoroughly discusses the phenomenon of online drug trafficking and how it occurs in our society in Durban. Internationally, the United Nations Office on Drugs and Crime makes provision for annual reports that focus on drug trends as well as any updates in this regard (UNODC 2010). In Europe, the European Monitoring Centre for Drugs and Drug Addiction provides a similar report stating statistics and important new information surrounding drugs. These reports are comprehensive and provide a great amount of information of the types of drugs being trafficked as well as how they are being trafficked. However, South Africa is limited in providing such reports with data and information that is in need of being made aware of. The city of Durban is unaware of drug trafficking via cyberspace and very little attention is dedicated to creating awareness of cybercrime. Sadly, the majority of drug-related reports are done by rehabilitation centres that provide statistics of the number of drug users, but these are not informative enough to provide information on whether cyberspace was used to purchase these drugs. The only drug statistics that are available are those that are compiled by the SAPS, which are often limited in terms of specificity.

Drug-related cases are all placed under the same category with no indication as to how many of the cases were making use of cyberspace to commit drug trafficking. With this being said, this study focuses on determining how cyberspace is used to traffic drugs in South Africa. By researching further into the phenomenon of online drug trafficking in Durban, the researcher opines that the study will be of great value towards understanding drug trafficking in Durban, but more so, it will provide insight into how the internet is being used to traffic drugs and how South Africa can prevent and curb cybercrime. In the following section, the researcher highlights the research questions as well as the objectives of the study.

## 1.4. Research questions and objectives of the study

This section highlights the research questions followed by the objectives of this study.

# 1.4.1. Research questions

- 1. How is cyberspace used as a tool to traffic drugs in Durban, South Africa?
- 2. Who are the beneficiaries of this cybercrime?
- 3. What are some of the laws and policies that are in place to combat the issue of drug trafficking in South African society as well as via cyberspace?
- 4. What are the various types of drugs that are being sold via cyberspace?

#### 1.4.2. Objectives of the study

The research objectives for this study are as follows:

- 1. To examine the use of cyberspace to traffic drugs in Durban, South Africa.
- 2. To determine the beneficiaries of drug trafficking via cyberspace.
- 3. To investigate the laws and policies that are in place to combat the issue of drug trafficking in South African society as well as via cyberspace.
- 4. To determine the types of drugs that are most likely to be sold online via cyberspace.

In the paragraph to follow, the researcher briefly discusses the significance of the study. The researcher explains why this study if significant and why it is necessary to conduct this study.

#### 1.5. Significance of the study

The importance of drug trafficking as a topic for research is paramount as it is becoming relatively rife in our community. In order to find solutions to combat this issue or to curb the problem at hand, we first have to research the phenomenon and ascertain relevant details in this regard (such as the method of trafficking and the various ways that drug traffickers are using to traffic illegal substances). It is almost impossible to develop methods to prevent and/or reduce this crime without knowing exactly what is taking place within this field in our current day and society. The motivation for choosing drug trafficking as a research topic is due to the fact that this area of criminality continues to evolve and criminologists may never fully be ahead of drug traffickers. Thus, furthering research in this field will allow us to think more widely and carefully as well as creating a better understanding of the field for future criminologists. Not only will an understanding of the crime be gained, but also the ability to actively develop methods to reduce its occurrence. This study will be of benefit to the South African Police Services as it will allow them to see the problem of cybercrime from a different viewpoint and also to learn about any areas that they may or may not be aware of. It will allow the police officials to broaden their knowledge on cybercrime as well as the various ways that the internet may be used to commit a crime. The community in Durban benefits from this study as it will provide them with a contemporary study that thoroughly discusses how cyberspace is used as a tool to traffic drugs within the metropolitan. This study fills the gap for law and policy makers in Durban as it highlights the legislature that is currently available for drug-related cases whilst listing the shortcomings of the existing laws and policies when dealing with drug trafficking via cyberspace. This study provides insights into drug trafficking (such as who the beneficiaries are and which drugs are being made available online), with specific consideration of this crime taking place in the dimension of cyberspace.

# 1.6. Conceptualisation and operationalisation of key concepts

The following section provides an insight into the meaning of the key terms of this study as well as their meaning in terms of relevance to the study that is being conducted. These include terms such as cyberspace, cybercrime and drug trafficking

## 1.6.1. Cyberspace

The word "cyberspace" was created by William Gibson in 1982 and makes reference to the network that is most commonly known as the internet. Cyberspace can be defined as a metaphor for describing the non-physical terrain created by computer systems (Fenz 2005). Online systems, for example, create a cyberspace within which people can communicate with one another (email), do research or simply window shop for whatever items they wish for. Fenz (2005) goes further to stipulate that cyberspace is more than the internet, as every transaction or event that is not happening in the "real" world is occurring in cyberspace. Rouse (2008) defines cyberspace as "a domain characterized by the use of electronics and the electromagnetic spectrum to store, modify and exchange data via networked systems and associated physical infrastructures". Essentially, cyberspace can be explained as a link of individuals through the use of computers and networks with a disregard for geographical barriers (Rouse 2008). Sneider (2006) explained cyberspace as a "computer-mediated environment" whereby individuals could talk, create, own and manipulate objects. For the purpose of this study, the term cyberspace refers to a virtual environment that allows individuals to do as they please (both legal and illegal).

#### 1.6.2. Cybercrime

According to Rouse (2018), cybercrime refers to criminal activities that take place with the involvement of a computer or any other networked device. Southwick (2018) states that cybercrime is when a crime is committed using a computer or related electronic device as the tool to commit the offense. In addition, Whitfield (2017) is of the view that cybercrime is any criminal activity whereby electronics are involved and thus targeted and/or used. He goes further to state that cybercrime consists of several activities ranging from fraud and identity theft to hate crime and drug trafficking. However, for this study, cybercrime refers to the occurrence of online drug trafficking in cyberspace using an electronic device as the tool to commit this crime.

#### 1.6.3. Drug trafficking

According to the United Nations Office on Drugs and Crime (2010), drug trafficking is an illegal trade whereby individuals cultivate, manufacture, distribute or sell substances that are subject to drug prohibition laws.

In addition, Rall (2017) says that drug trafficking also applies to the illegal trading of prescription medication and drugs such as Valium and Oxycodone. Furthermore, LaMance (2018) states that "criminal laws define drug trafficking as knowingly being in possession, manufacturing, selling, purchasing or delivering an illegal or controlled substance" The term drug trafficking in this study refers to cultivating, manufacturing, selling or purchasing a substance that is otherwise deemed illegal according to South African law.

# **1.6.4. Drugs**

A drug is a substance that alters the body's function, physically or psychologically, when taken into the body (The Recovery Village 2018). There are certain drugs that are legal (such as alcohol, caffeine and tobacco) while several are illegal (cannabis, ecstasy, heroin and cocaine). Dowshen (2018) states that "drugs are chemicals" which alter the way that a person functions mentally and physically. He continues by stating that drugs may also alter a person's mood, emotional state and their ability to make safe and sound decisions. Drugs are substances that affect the behaviour of the user thus resulting in some form of instability (Goldberg 2018). However, in this study, the word drugs refers to illegal chemical substances that cause a physical, mental or emotional change in the user.

#### 1.6.5. Cryptomarket

A cryptomarket is a dark net site, similar to that of an online shopping site except that these sites can only be found in a secured part of the internet i.e. the deep web and dark net. Some goods may be legal but the majority are illegal items such as drugs, stolen information and weapons (Barratt 2016). Cryptomarkets make use of cryptocurrencies such as Bitcoin and are only accessible through the use of browsers that protect the user's identity and location, such as that of TOR (these are discussed in detail in chapter two). For the purpose of this study, a cryptomarket refers to an underground marketplace on the dark net whereby illegal good, like drugs, are sold.

#### 1.6.6. Cryptocurrency

Mills (2018) defines cryptocurrency as a digital or virtual form of money that was designed to be exchanged for goods or services amongst cyberspace users.

In addition, cryptocurrency makes use of cryptography (which is simply known as encryption) to secure and verify transactions and to also control the creation of new cryptocurrencies (Mills 2018). Ultimately, cryptocurrencies are restricted entries in a database that cannot be changed by any individual unless certain circumstances are met (Telegraph Reporters 2018). According to Fiorillo (2018), cryptocurrency is a digital asset that can be exchanged to facilitate transactions. For use in this study, cryptocurrency refers to the virtual form of money that is used to make payments for anything that exists in cyberspace, particular in the deep web and the dark net. It is virtual money.

The following section briefly discusses the research methods of this study. A detailed discussion pertaining to these methods will be presented in Chapter four. Here, in Chapter one, the researcher wishes to paint a picture and briefly highlight the research methods.

### 1.7. Research methods (See Chapter four)

The following subsections each provide a brief insight into the various important components of the research methods that this study will be making use of.

## 1.7.1. Research design

The study will use an exploratory research design. Copes (2013) asserts that exploratory methods are valuable means of finding out what is happening, to seek insight, to ask questions and to assess phenomena in a new light. This occurs when a researcher has an idea or has observed something and seeks to understand more about it. This is particularly useful if the researcher wishes to clarify the understanding of the problem. Thus, the researcher opted for this research design as the objective is to explore the use of cyberspace to traffic drugs as well as to explore the experiences of cybercrime officials in dealing with such a crime. This study will make use of a qualitative approach as this method will provide an in-depth understanding of research issues that hold the viewpoints of the sample (police officers from the cybercrime unit of the South African Police Services) concerning the trafficking of drugs via cyberspace.

The qualitative research approach provides a deep and rich understanding of the social processes that would not be obtainable from methods used in quantitative research (Copes 2013).

The qualitative research approach will provide the researcher with an insight and understanding of the perceptions of the research participants i.e. the South African Police officials. The qualitative research approach is deemed appropriate for this study as it will assist the researcher in exploring the perceptions of those involved with this crime as well as the experiences and challenges faced with reporting cybercrime in Durban, South Africa. It will allow the researcher to explore the phenomenon in a manner whereby rich and detailed information can be gathered to build a bigger picture of the issue of cybercrime in Durban, South Africa.

### **1.7.2. Sampling**

This technique has been chosen as the researcher will choose respondents based on certain characteristics that have been determined to specifically answer the research questions of the study. The sampling technique chosen for this study will be used by first determining the type of information that is needed to answer the research questions of the study. This may include information surrounding existing and new laws and policies regarding cybercrime, the reasons why drug dealers turn to the internet to conduct their work, the beneficiaries of online drug trafficking as well as which drugs are being sold online. The researcher will then define the qualities that the respondents should or should not possess such as age, gender, number of years of experience and number of encounters with cybercrime. Thereafter, respondents will be selected based on the qualities chosen by the researcher. Whilst sampling the respondents, the researcher will clearly indicate that participation is voluntary and that all identities will remain confidential.

The researcher will also ask for informed consent prior to proceeding with the data collection. The sample size for this study will be ten respondents. The reason that the researcher has chosen a small sample size is due to the sensitivity and elusive nature of the study (Dworkin 2012). The respondents for this study will comprise a sample of ten officials from the South African Police Services (from the cybercrime unit). These respondents were chosen as they are central to the study and form the major category of individuals who are involved in the research topic area. An application will be sent to the Provisional Office of the South African Police Services requesting permission to conduct research in the cybercrime division.

#### 1.7.3. Data collection

For the purpose of this study, the researcher will make use of semi-structured interviews with predetermined questions formulated using the literature review data. Data collection will also take place on the basis of an extensive literature review on the topic of drug trafficking via cyberspace in Durban, South Africa. The analysis of literature as part of data collection will be used to answer all four key questions, but will mainly be used to answer key question number 2 regarding the laws and policies surrounding cybercrime. These tools (i.e. the semi-structured interview and analysis of literature) have been selected as they are the most appropriate for a study of this nature whereby the researcher wishes to gather in-depth and rich knowledge about the phenomenon. These tools provide comparable data as well as a keen understanding about the topic. The semi-structured interviews will be conducted via a one-on-one interview using the predetermined questions. Probing questions will also be used during the interview. The respondents will be protected by remaining anonymous and by ensuring that the questions asked do not embarrass or victimise them in any way. The information that the respondents provide will be kept confidential and the respondents will sign an informed consent form before proceeding with the interview.

#### 1.7.4. Data analysis

The data collected will be analysed using thematic content analysis (Vaismoradi et al. 2013). The researcher will begin by becoming familiar with and immersed in the data. Transcripts or recordings will be reviewed several times. The researcher will then proceed to generating or identifying initial codes or themes that appear interesting and meaningful to online drug trafficking. Thereafter, the themes will be named and defined. Lastly, the researcher will transform the analysis into an interpretable report. This final report will go further than just a description of the themes and will portray an analysis that will be supported with empirical evidence which addresses the research question.

In the following section, the researcher provides an overview of the chapters for this study.

### 1.8. Chapter layout and structure

Chapter one introduces the reader to the study by providing a background to drug trafficking via cyberspace.

It provides the reader with an understanding of what the study is about including the key concepts, importance of such a study and a brief overview of the research methods that will be employed for this research.

Chapter two provides a greater and deeper insight into available literature that is specific and applicable to the topic of drug trafficking via cyberspace in Durban, with particular reference to how cyberspace increases drug trafficking, the types of drugs that are most likely to be sold online, the laws and policies that South Africa has in place to curb online drug trafficking and the beneficiaries of drug trafficking via cyberspace in Durban, South Africa.

Chapter three applies the Classical School of Thought and the Strain Theory to drug trafficking via cyberspace. These theories guide the study and provide the theoretical framework for further analysis, interpretation and discussion which are to be made in subsequent chapters.

Chapter four describes the research methods that were used to conduct this study and to achieve the objectives set out for this research. This study was predominantly qualitative.

Chapters five and six are a detailed interpretation, analysis and discussion of the data obtained in the study. These two chapters provide the greatest insight as they critically analyse the responses received and examine the differences and similarities amongst the respondents' responses.

Chapter seven is the final chapter of this study and provides all the conclusions reached from all the findings of the study. This chapter also submits various recommendations emanating from the results of the study. It provides solutions and ways for drug trafficking in Durban to be dealt with more effectively and efficiently in the future.

The diagram below provides a representation of the chapter layout and structure.

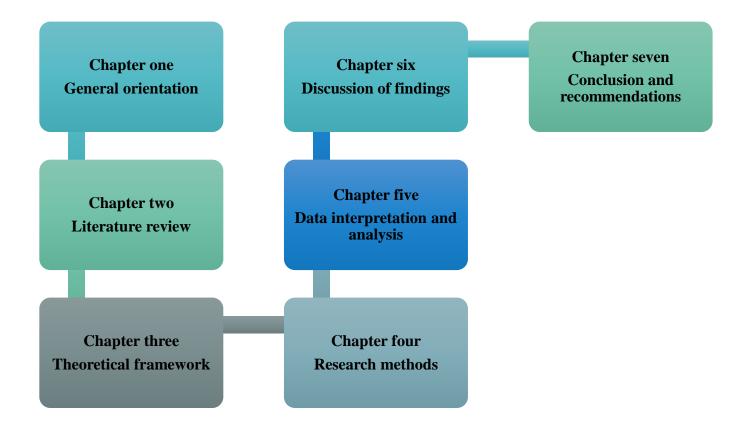


Figure 1: Chapter structure and layout

The diagram above is a representation of the chapter structure and layout. It depicts the various chapters and the title of each.

#### 1.9. Conclusion

This chapter provided a general overview of the study by providing a foundation for the reader as well as giving insight into the core of the study, which is expressed through the background of the study, conceptualisation and operationalisation of key terms, research methods and the importance of this study. The chapter to follow provides greater understanding of the literature and existing work surrounding drug trafficking via cyberspace.

#### 1.10 References

Alfreds, D., 2018. *Here's how cybercriminals are targeting attorneys in scams to steal cash*, retrieved from https://www.fin24.com/companies/ICT on 17<sup>th</sup> September 2018.

Barratt, M., 2016. *Explainer: what are drug cryptomarkets?*, retrieved from https://www.theconversation.com/explainer-what-are-drug-cryptomarkets-64596 on 27<sup>th</sup> September 2018.

Copes, H., 2013. Advancing Qualitative Methods in Criminology and Criminal Justice. Routledge, New York, pp. 86-88.

Dowshen, S., 2018. What you need to know about drugs, retrieved from https://www.kidshealth.or/en/kids/know-drugs.html on 25<sup>th</sup> September 2018.

Dworkin, S.L., 2012. Sample Size Policy for Qualitative Studies using In-Depth Interviews, Springer Science and Business Media, vol. 41, pp. 1319-1320.

Elkhourly, L., 2017. Fighting drug trafficking online – The role of the internet in the NPS trade, retrieved from https://www.cocaineroute.eu/fighting-drug-trafficking-online-the-role-of-the-internet-in-the-nps-trade on the 19<sup>th</sup> of September 2018.

Fenz, S., 2005. *Cyberspace Security: A Definition and a Description of Remaining Problems*, retrieved from http://www.univie.ac.at/Frisch/isegov/aushaenguniwien/CyberSecurity\_Fenz.pdf on 20<sup>th</sup> September 2018.

Fiorillo, S., 2018. *What is cryptocurrency: Everything you need to know*, retrieved from https://www.thestreet.com/investing/bitcoin/what-is-cryptocurrency-14679467 on 26<sup>th</sup> September 2018.

Goldberg, J., 2018. *What is drug addiction?*, retrieved from https://www.webmd.com/mental-health/addiction/drug-abuse-addiction#1 on 25<sup>th</sup> September 2018.

Haelterman, H., 2016. Crime and criminality, in *Crime Script Analysis*, pp 27-111, Palgrave Macmillan, London.

Hoorens, S., 2016. *Taking stock of the online drugs trade*, retrieved from https://www.rand.org/randeurope/research/projects, on 18<sup>th</sup> September 2018.

LaMance, K., 2018. What is the criminal definition of drug trafficking, retrieved from https://www.legalmatch.com/law-library/article/drug-trafficking-penalties.html on 24th September 2018.

Mills, B., 2018. What is cryptocurrency: Everything you need to know (ultimate guide), retrieved from https://www.blockgeeks.com/guides/what-is-cryptocurrency/ on 25<sup>th</sup> September 2018.

Monama, T., 2018. *Beat cybercrime insecurity*, retrieved from https://www.dailysun.co.za/success/health, on 18<sup>th</sup> September 2018.

Rademeyer, J., 2013. *Claim that 1 in 3 South Africans are drug users based on flawed survey*, retrieved from http://www.africhek.org on 13<sup>th</sup> September 2018.

Rall, S., 2017. *SA slated as drug trade hub*, retrieved from https://www.iol.co.za/news/sa-slated-as-drug-trade-hub-8130415 on 24<sup>th</sup> September 2018.

Rouse, M., 2008. *Cyberspace*, retrieved from https://www.whatistechtarget.com/definition/cyberspace on 24<sup>th</sup> September 2018.

Sneider, D., 2006. What is cyberspace?, retrieved from https://www.tecfa.unige.ch/tecfa/research/CMC/cspace1/node2.html on 24<sup>th</sup> September 2018.

Southwick, R., 2018. *Inside the dark web during trade*, retrieved from https://www.newsinteractives.cbc.ca/longform/the-new-frontier-of-the-drug-trade on 18th September 2018.

Telegraph Reporters, 2018. What is cryptocurrency, how does it work and why do we use it?, retrieved from https://www.telegraph.co.uk/technology/0/cryptocurrency/ on 25<sup>th</sup> September 2018.

The Recovery Village, 2018. *Types of Drugs: The Seven Main Types of Drugs*, retrieved from https://www.therecoveryvillage.com/drug-addiction/types-of-drugs/#gref on 25<sup>th</sup> September 2018.

United Nations Office on Drugs and Crime, 2010. *Drug trafficking*, retrieved from https://www.unodc.org/unodc/en/drug-trafficking/index.html on 24<sup>th</sup> September 2018.

Vaismoradi, M., Turunen, H. & Bondas, T., 2013. Content analysis and thematic analysis: implications for conducting a qualitative descriptive study. *Nursing and Health Sciences*, 15(3), pp. 398-405.

Whitfield, B., 2017. *What is cybercrime? Four common forms of cybercrime*, retrieved from https://www.hakin9.org/what-is-cybercrime/ on 24<sup>th</sup> September 2018.

#### **CHAPTER 2: LITERATURE REVIEW**

#### 2.1. Introduction

As a researcher, it is imperative to find out what other researchers have learned or discovered about the topic area before one addresses it. A literature review serves as an essential part of any research project. According to Kraska and Neuman (2008), "a literature review is based on the assumption that knowledge accumulates and that people learn and build on what others have done". However, the central theme of this study's literature review is based on the specific aims and objectives of the study, as outlined in Chapter 1. These include the policy frameworks and legislature surrounding the topic area. The literature review will also provide a contextual framework as to how cyberspace is used as a tool to traffic drugs in Durban, South Africa. This chapter will further examine the literature materials that were used by the researcher to delve deeper into the phenomenon of online drug trafficking in Durban. This includes the different types of drugs that are being sold online, the beneficiaries of this particular cybercrime, the laws and policies surrounding online drug trafficking as well as how cyberspace is used to traffic drugs in the city. Before these core topics are discussed in detail, it is imperative to provide a holistic perspective on cyberspace as a tool to traffic drugs online. The researcher wishes to provide enlightenment regarding the extent of drug trafficking (both nationally and internationally) and the magnitude of the drug problem, as well as of the different websites through which these drug dealings are occurring.

#### 2.2. The extent of drug abuse and drug trafficking

According to the National Institute on Drug Abuse (2017), the United States of America has 5% of the world population but consumes 75% of the world's prescription drugs. In 2013, over 24 million Americans aged 12 and older were current illicit drug users (The Recovery Village 2018). From 2005–2014, the Drug Enforcement Administration (DEA) successfully stemmed almost 30 billion dollars in revenue from drug traffickers. In the United Kingdom, online purchasing of drugs increased from 18.3% to 25.3% in the years 2014–2017 (Kentish 2017). According to Fullerton (2017), in a 2016 Global Drug Survey 9.3% of participants had bought drugs off the internet at some point in their life, while the percentage of dark web purchases taking place in 2016–2017 rose from 4.5% to 6.7%.

In Africa, cannabis remains the most widely used illicit substance in the region. The highest prevalence and increase in use is being reported in West and Central Africa with rates between 5.2% and 13.5% respectively. Amphetamine-type stimulants such as ecstasy and methamphetamine now rank as Africa's second most widely abused drug type. Other substances that were used by youth surveyed in Sierra Leone included Diazepam (a tranquilizer) and different inhalants, with 3.7% injecting drugs (Bruwer 2017). Between 2008 and 2017, there were several reports on incidents related to illicit drugs in Kenya, Tanzania and Uganda (Aucoin 2018). Aucoin (2018) goes further to state that heroin and cocaine were rife in these countries and that these drugs were amongst the most common to be trafficked into these parts of Africa. A seizure of a large amount of heroin in 2010 first highlighted Africa's role in drug trafficking. In 2014, 1,032kgs of cocaine were seized from a small boat in Mombasa. This was the largest seizure in Africa. As seizures continued, security around Africa became stricter, which caused drug traffickers to use alternate methods and other areas such as South Africa (Bruwer 2017).

Drug traffickers are able to exploit the transport, financial and technological infrastructure of South Africa to continue the trafficking of drugs into and out of South Africa and Africa as a whole. According to Youth Against Drug Abuse (2015), 15% of South Africans have a drug problem. In South Africa, the use of heroin injections increased from 12% to 21% in 2014 (The South African Community Epidemiology Network 2014). The South African Community Epidemiology Network (2014) reports cannabis as the primary drug of abuse by the majority of drug users under the age of 20 years old. Figures provided by the South African Police Service (SAPS) reveal that 60% of crimes nationally were related to substance abuse. According to SAPS crime statistics, the number of drug-related crimes increased from 108,902 in 2007 to 292,689 in 2017 (an estimated 12.9% increase). In 2004, the South African government disbanded the South African Narcotics Bureau (SANAB), a dedicated drug-related crimes have increased by 30% (YADA 2015).

While online drug trafficking statistics are limited for South Africa and Durban in particular, it is noteworthy to acknowledge that cannabis and heroin form the main substances of abuse in Durban.

These drugs affect certain areas and townships around the country. In a southern suburb known as Chatsworth in Durban, heroin is referred to as "sugars" and affects 70% of households.

In the Tshwane Township, people are especially vulnerable to "Nyaope", a mixture of heroin and cannabis that has become very popular. While there are limited reports of online drug trafficking in Durban, it cannot be ruled out that there are individuals who may be making use of the internet to traffic drugs. Due to the lack of reports of this cybercrime as well as relevant law enforcement units to detect this crime, South Africa and Durban are yet to uncover the secrets of the tool we value the most, the internet. From the extent of the drug trafficking as discussed above, it is imperative to provide a discussion on various webs that are used to traffic drugs which contribute to the extent of the drug trafficking magnitude.

#### 2.3. The various webs

This discussion below provides information on the different layers of the web that can be used to access drugs online.

#### 2.3.1. The surface web

There are multiple layers to the internet in our current day and age. The web consists of the surface web and the deep web. The deep web is further divided into the dark net and the dark web. In this paragraph, the surface web will be discussed briefly. The surface web is the part of the internet that can be accessed by anyone via any computer in the world. It includes search engines such as Google, Bing and Yahoo (Peek 2015). According to Peek (2015), the surface web is estimated to comprise about 4% of the total web, with the dark web making up roughly 96% of the total web. Peek further states that the surface web is made up of static and fixed pages. Static pages do not depend on a particular data base for their content to be accessed. Instead, they exist on a server waiting to be retrieved. Any reference to the surface web will be referring to sites whose domain ends in ".com; .org; .net or similar variations" (Minnaar 2017). Essentially, the surface web is the visible web whose content does not require any special setting or configuration in order to be accessed by an internet user.

## 2.3.2. The deep web

According to Minnaar (2017), the term "deep web" refers to the part of the internet that cannot be accessed via an ordinary search engine such as Google and Bing. He continues by stating that "most users of the internet were not able to access the webpages making up the Deep Web" (Minnaar 2017). This may be due to the fact that the pages of the dark web are dynamic pages. These pages are created as a result of a private database search whereby the content and the design of the page are kept separate from each other. The content is placed in a particular database and will only be accessible to the user after a series of intense web searching, as these private databases will not be accessible easily via the common search engines. For example, certain universities or government organisations keep a database of certain information that is not meant to be accessible by the general public (Peek 2015). Other sites may restrict data access to the public but grant access to members or subscribers only (Minnaar 2017). According to He et al (2007), in January 2006, it was estimated that the deep web contained about 900 billion pages while the biggest search engine at the time, Google, contained a mere 25 billion pages. In simple terms, the Deep Web is any site that a usual search engine, such as Google, cannot find.

#### 2.3.3. The dark web

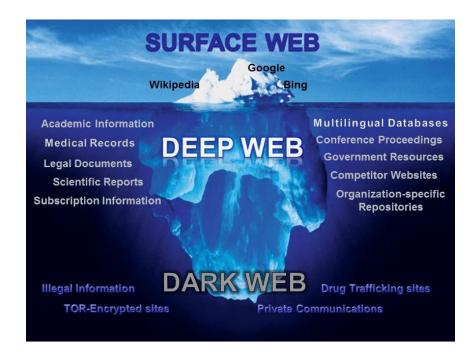
The term dark web (also referred to as the dark net) refers to the network that may only be accessed using a very specific software that requires authorisation (Hale 2017). Hale (2017) maintains that the dark web is a network consisting of untraceable online activity. The dark web was initially created by the United States government so that their spies could exchange information while remaining anonymous. The US military researchers went further to develop a software known as TOR (The Onion Router) in the 1990s, which was then released to the general public. The US government released the software so as to ensure that their spies would not be detected if everyone was using the same system. Unfortunately, this software system has now become the biggest threat to society as it is an open hub for several forms of cybercrime.

The term "dark net" has been used interchangeably with the word "deep web" and wrongly so. According to Minnaar (2017), the two terms have been mixed incorrectly due to a common misunderstanding regarding the differences between the two.

The dark net is an encrypted network that exists over and above the internet and is accessed via software such as TOR. The dark web can be considered as a subset of the deep web. Minnaar (2017) goes further to state that the dark net can be used for several reasons, such as:

- 1. Protecting the privacy of citizens who may be targeted for surveillance by government agencies or related organisations.
- 2. Protecting political activists and related individuals from any type of retaliation from the government.
- 3. Using the dark net platform to expose crimes, corruption or dishonourable members of the government. Essentially to whistle blow anonymously.
- 4. To detect various forms of cybercrime through online computers (crimes including hacking, fraud scams and file corruption).
- 5. To allow restricted goods to be sold on black markets on the dark net.
- 6. To share files such as personal detail files or illegal software.

The following image provides a holistic view of the various layers of the internet in a summative format.



(Source: Das 2017)

Figure 2: Various layers of the internet

The image above displays examples of the contents of the different layers of the internet. As is evident from this image, it is the dark web that is responsible for highly illegal activity, one of which is drug trafficking.

The terms "deep web" and "dark net" may be used inaccurately interchangeably but they are definitely different concepts in the "dark" world. To briefly summarise them: the dark web refers to untraceable online activity, whilst the dark net refers to the marketplace where various illegal services and goods can be obtained. Ultimately, both are only accessed via authorisation and will not be found anywhere near the surface web (Peek 2015). Now that the different layers of the internet have been described, the researcher would like to provide a holistic perspective on the various sites that are used to traffic drugs on the internet. The following section will be a discussion of the major sites in this regard.

## 2.4. The various types of sites used to traffic drugs

The discussion below relates to the most noteworthy and major sites that are being used to traffic drugs via cyberspace.

#### **2.4.1. Silk Road**

One of the biggest online drug markets known till date is Silk Road, an online marketplace that makes buying and selling illegal drugs as easy as shopping or banking online (Mark 2014). The site provided an online bazaar that allows individuals to trade a range of illegal goods and services whilst providing users with the advantage of remaining anonymous (Minnaar 2017). Although Silk Road was created for a range of illegal activities, its primary use is for the sale and purchase of drugs and other controlled substances such as prescription medication (Bisson 2015).

Silk Road was launched on the 27<sup>th</sup> of February 2011 by 28-year-old Ross Ulbricht. Ulbricht, known online as "Dread Pirate Roberts", was an engineering student who studied solar cells at Pennsylvania State University. However, when he graduated in 2009, he lost interest in physics and this essentially led to the development of Silk Road in 2011. After graduating from university, Ulbricht drifted from job to job and eventually searched for something more interesting and challenging.

Soon after, Ulbricht discovered Bitcoin and became aware that the digital cryptocurrency could not be traced back to any bank and whose value was determined by factors of the market in which it was used. This led to Ulbricht's idea of creating a website where people could purchase any goods or services that they wanted whilst remaining anonymous. As a Libertarian, Ulbricht's belief was that drug use was a personal choice and as a user himself, he knew very well the difficulty of obtaining quality supplies of drugs. With this he had decided that drugs would be the main merchandise of his online business.

In February 2011, Ulbricht lunched his site, "Silk Road", on various online sites and publicised it on various Bitcoin forums (Mullin 2015). This was the beginning of the biggest drug bazaar to offer not only drugs but also services that one may never think to be possible. According to Edwards (2013), Ulbricht earned 20,000 dollars in Bitcoin commissions from sales on Silk Road per day and a total of 3.4 million dollars in total. Edwards (2013) goes further to state that in an indictment written by the FBI, that amount was deemed as the largest balance held by any Silk Road user at the time. With Silk Road being the biggest online drug market, law enforcement agencies were unsure if it was being run by one person or by a group of people (Bisson 2015). The various law enforcement agencies, such as the FBI and the Department of Homeland Security, worked diligently to infiltrate the site. Eventually, on the 1st of October 2013, Ross Ulbricht was arrested. The FBI shut down the main website, seized its assets (which included 26,000 Bitcoins then valued at almost 4 million dollars) (Leger 2014). Unfortunately, the second version of the site, Silk Road 2.0, was launched by Blake Benthall in November 2013, just weeks after the original site was shut down.

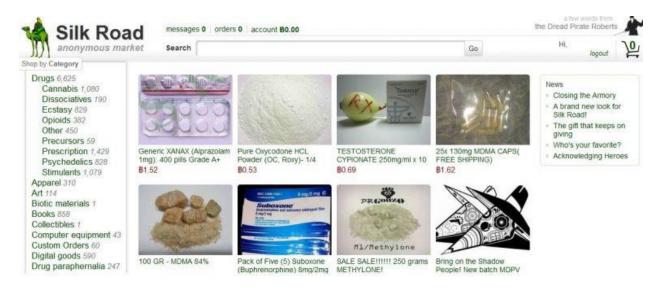
Silk Road 2.0 operated for a year with Benthall, known online as "Defcon", being the successor to the original version until it was shut down by the FBI on the 5<sup>th</sup> of November 2014. In 2015, The Department of Justice revealed that Silk Road 2.0 had accumulated roughly 8 million dollars in sales per month (Mark 2014). Mark (2014) continues by stating that it was discovered that the site had about 150,000 users who were purchasing and selling any type of drug that was needed as well as a range of computer hacking tools and various illegal services using the digital currency of Bitcoin.

Sadly, Silk Road did not end there. In 2014, Silk Road version 3.0 was launched, but several users of the site believed that this version was a scam. This ultimately led the Silk Road administrators to launch a new and improved version of the market-Silk Road version 3.1.

However, in June 2017, the Silk Road marketplace was hacked, which led to a temporary closure (Riggs 2018). In September 2017, the site was up and running again. Nevertheless, the main question remains: Is Silk Road 3.1 still active? According to Jango (2018), Silk Road 3.1 is still active and there are various sites offering tutorials on how to access the site. Upon researching several sources, the researcher did not find any official material from law enforcement regarding the closure of the latest version of the drug market, thus concluding that Silk Road still remains a menace to law enforcement.

There are over 30,000 drugs that are currently available on Silk Road 3.1 (Riggs 2018). According to Riggs (2018), drugs such as cannabis, opioids, stimulants, benzodiazepines, psychedelic, dissociatives, prescription drugs, heroin, ecstasy and several other drugs are purchased. Riggs (2018) goes further to state that besides the above-mentioned drugs, things such as fake money, weapons, poison, adult-rated content and terrorism-related items can also be readily available and bought on Silk Road. Fahey (2015) states that 16 of the top 20 categories are drug related with "soft drugs" such as cannabis being purchased more than "hard drugs" such as heroin and cocaine.

Apart from indicating that drugs form part of the most wanted goods from the illegal site, this also shows a clear depiction of the drug market and which items are popular on the site.



(Source: Mosk 2014)

Figure 3: Silk Road drug market

The image above shows what a typical page on Silk Road would look like. Images of the item are displayed along with its price, which is to be paid using specific crytocurrency. Amongst the many items for sale are Xanax, a benzodiazepine, which is an anxiety and depression drug issued only by a medical doctor. In the image above, the various categories that an individual can choose from when buying on the site are also clear. As mentioned above, the category "drugs" contains the most amount of items for sale (6,625 items under this category). The category is further broken down thus highlighting the fact that just about any drug can be bought using the site. It is also clear that whilst drugs make up the majority of items, they are not the only items that are available. Art, books, digital goods and even drug paraphernalia can also be purchased.

# 2.4.2. The agora marketplace

While many may have assumed that Silk Road was the only drug bazaar, this assumption remains highly incorrect. The Agora Marketplace, Silk Road's biggest competitor, was launched in September 2013, only a month or less before the takedown of the infamous Silk Road v1.0. Despite being in existence during the FBI's investigation and takedown of Silk Road, Agora was not amongst the many markets to be detected and shut down even though the site is only accessed via TOR, the same as Silk Road (Leyden 2017). This is due to the fact that Agora has been able to achieve what other dark net markets fail to and that is anonymity.

The extent of Agora's security and anonymity greatly limits the availability of information about the site, its founder(s) and even its most recent growth. To add to Agora's high security, this marketplace also makes use of private couriers thus making detection close to impossible (Bertrand 2015). Information surrounding much of this site remains a mystery right up until today. Agora has even survived "Operation Onymous", a government drive in November 2014 aimed at taking down high-profile online marketplaces selling illegal goods and services. It was this very task team that took down Silk Road V1.0 and various other smaller markets on the dark net. Greenberg (2015) explains that Agora shared the dark net with temporary sites known as "ghost markets", where users could purchase whatever goods they wanted before the market disappears without a trace.

Silk Road may be bigger than Agora in terms of finances but Agora has far more drugs for sale than Silk Road. According to Bertrand (2015), during the period of 29<sup>th</sup> January 2014 to 22<sup>nd</sup> August 2014, the drug listing on the Agora site increased from 7,400 to 12,053. After Silk Road v.1.0 shut down, Agora began to supply weapons and services as well. During the above-mentioned time period, the sale of weapons and services increased from 9,158 to 16,137 sales. Bertrand (2015) reports that the Agora site made an estimated daily amount of \$150,000 (equivalent to roughly R2,000,000) from the sale of drugs, weapons and services.

One of the main reasons that Agora trades illegally without being detected is due to the cyber masterminds that it employs as part of the administration staff to control one of its most crucial aspects, that being the forum. Unlike Silk Road, Agora only makes use of the forum to alert users of scams or to notify them of an upgrade or site maintenance (Leswing 2017). Agora avoids detection by also only allowing users to access the site if they have received invite codes. This tactic is their way of vetting to ensure that certain individuals such as undercover officials do not gain access to the site. While Silk Road has faced security breaches and loss of its users' Bitcoins, Agora remained steady and grounded in its goal of anonymous trade. However, in September 2015, Agora's admin sent out a message stating that they would be having downtime for a period. The site has not come back up since then (Greenberg 2015).

#### 2.4.3. AlphaBay

Though this online drug market was not one of the first markets to arrive on the dark net, it certainly gained a large amount of popularity amongst dark net users. AlphaBay was launched in 2014, three years after Silk Road's first version and one year after Agora's launch. However, at a press conference held in July 2017, authorities stated that "AlphaBay was 10 times larger than Silk Road" (Leswing 2017). According to Leswing (2017), AlphaBay has more than 250,000 listings of drugs and toxic chemicals. Leswing (2017) continues by stating that the site had 122 vendors advertising for fentanyl (a potent and toxic opioid) and 238 vendors advertising heroin. During its existence, Alphabay accumulated some 200,000 users with an estimated daily sales amount of \$600,000 to \$800,000 (about R7.2–R9.6 million Rand).

There is limited information surrounding the founder(s) of this dark market. However, it is known that one founder was a 25-year-old Canadian citizen named Alexandre Cazes. Cazes was residing in Bangkok, Thailand at the time in which the authorities discovered his details from the site whilst working undercover. Cazes was arrested and charged with conspiracy to traffic narcotics. According to Leyden (2017), Cazes killed himself in his jail cell whilst being kept in custody by authorities. While he is the only known founder, authorities suspect that there are other masterminds behind this multi-million-dollar black market.

Whilst Silk Road remains the first and original dark market to sell illegal goods and services on the dark net, it surely provides other markets with ideas on detection-prevention methods. Silk Road V.1.0 was a test run for illegal online drug trafficking. The site fell and rose on several occasions, each time trying to rectify their systems from being detectable, making several mistakes for other to learn from. Silk Road was penetrable, lost users' cryptocurrency through hacks and faced various security breaches. Agora certainly learnt from this and is known for its anonymity and impenetrable security. Agora possesses what other markets wish for i.e. anonymous trade. Finally, AlphaBay accepts various forms of cryptocurrency and not just Bitcoin like the other markets. This feature of AlphaBay attracts a vast amount of users, thus giving it the title of "biggest online market" (Leyden 2017). AlphaBay was taken down by authorities in the Netherlands on the 5<sup>th</sup> of July 2017. There has been no news of the site since (Zapotosky 2017).

One of the key interests surrounding Silk Road, Agora and AlphaBay is how the sites are located and exactly how the internet is used to access such dark sites. From the literature provided above, it is already known that the above-mentioned sites cannot be accessed via the surface web. Silk Road, Agora and AlphaBay are all accessed via the dark web using software known as VPNs and TOR. In order to fully understand how Silk Road is located, the workings of the VPN and TOR will be discussed in the sections to follow.

#### 2.5. How are sites on the dark web accessed/located?

The following discussion provides perspectives on how the dark web can be accessed.

## 2.5.1. Virtual private network (VPN)

According to Crawford (2016), a Virtual Private Network, or VPN, is a service that enables an individual to connect to the internet using a server run by a VPN provider. All of the data that travels between the individual's device and the VPN provider is securely encrypted, meaning that only you and the VPN provider can see it. Crawford (2016) goes further to state that due to this technological arrangement, VPNs:

- Provide privacy by hiding your internet activity.
- Allow you to escape censorship from various organisations such as schools, work and governments.
- Provide protection against being hacked when accessing a site from a public WiFi hotspot.
- Allow an individual to geo-spoof (this means that a user may access a site in Durban, but if the VPN server is located in America then it will show the user's location as being in America. It syncs the individual to the place of the VPN server even if the user is in a completely different country).

Despite having the above benefits, VPNs do not ensure anonymity. It is important to note that one has to remain connected to an Internet Service Provider (ISP) regardless of whether a VPN is being used. The ISP connects the user to the internet whilst the use of the VPN provider ensures that the ISP cannot detect which sites are being accessed. The ISP will only be able to detect that the user is connected to a VPN server.

This is where the TOR software comes into play. In order to ensure encryption and anonymity, all dark web sites can only be accessed using this software. The following section will discuss TOR in more detail.

# 2.5.2. The Onion Router (TOR) – what is TOR and what is it used for?

According to Mathews (2017), The Onion Router, or TOR for short, is a software and a network of servers that exist globally to provide a deep layer of privacy and security to people's internet activities. The TOR browser does this by making those activities more difficult to trace and monitor back to its original source. Essentially, TOR users' online activities become entangled with one another thus erasing the footprints of a single user.

Therefore, the more users, the deeper the entanglement and the greater the difficulty of determining which exact sites an individual is accessing. Whilst the TOR browser was originally developed by the US Military as a secure means of communication, it is now an open, multi-platform network that is readily available to the public (Crawford 2016). With this being said, TOR is used for many reasons.

One of the main reasons that TOR is used is so that individuals can shop on underground marketplaces on the dark web. However, TOR may also be used for:

- Protecting the identity of journalists and their sources whilst following leads online.
- Bypassing restrictions in countries that prohibit internet access.
- Victims of violent crimes, who may turn to TOR to partake in confidential discussions with a support group.
- Military and law enforcement to ensure secure communication and to hide their online activities as well as to protect any intelligence that government organisations may not want to disclose.
- Avoid surveillance, tracing or snooping of individuals who want to enjoy privacy and to freely explore the internet.
- Providing a platform for whistleblowers to openly discuss any issues that they may have, such as harassment or fraudulent activity in the workplace.

Whilst TOR may appear to possess several advantages, its provision of anonymity and security provides an open source for several forms of illegal activities to take place (Nicol 2016). The biggest illegal activity is definitely the underground drug bazaar but also includes:

- Trafficking of weapons and ammunition;
- Money laundering;
- Distribution of child pornography;
- Theft of information or data:
- Leaking sensitive information;
- Fraud- credit card; and
- Identity theft.

In summary, the TOR network makes use of several relay servers and layers of encryption to hide the identity of its users in a global network of servers, thereby allowing these individuals to openly, securely and anonymously communicate and browse the internet. The TOR network merges anonymity along with traceless payments using cryptocurrency called Bitcoin. The topic of cryptocurrency and Bitcoin will be further discussed in the section to follow.

# 2.6 Cryptocurrency

Cryptocurrency, a global payment system, is a digital or virtual form of currency that is exchanged for the payment of any good or services provided on the internet (Cooke 2018). Cryptocurrency was launched in 2009 by Satoshi Nakamoto who launched Bitcoin, the first cryptocurrency to capture the attention of the public, more specifically internet users.

According to Cooke (2018), by September 2015, there were over 14.6 million Bitcoins that were circulating, totalling a market value of 3.4 billion dollars.

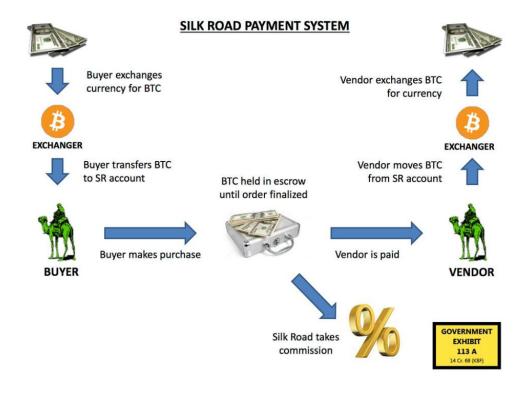
Cryptocurrency is unlike regular cash. It has no physical appearance and differs from usual transactions by making use of decentralised control rather than normal banking systems. In simple terms, cryptocurrencies are not regulated or controlled by any bank, government or financial agency. Rather, they rely on the internet to determine their value and to confirm their transactions. The value of the cryptocurrency can fluctuate daily or even hourly depending on the market in which it is being used.

While many may argue that the use of debit and credit cards "digitise" an individual's money, there are certain aspects that cryptocurrency offers as an advantage in comparison to that of regular government-issued currency. These include:

- Low transaction fees:
- Ownership of currency- your cryptocurrency belongs to you and cannot be seized, frozen or limited as is done using a regular banking system;
- Identity protection- credit and debit cards send out certain information that may be stolen or used to hack into your account. Cryptocurrency is securely sent directly to the recipient without any information besides the amount; and

• Accessibility- cryptocurrency can be accessed at any time as the internet is operative 24/7. It does not require a bank or waiting in a line to make or receive a payment.

The following image (figure 4) is a depiction of the payment system used by Silk Road. The buyer exchanges their currency for Bitcoin, which they then transfer into their Silk Road or any other dark market account. The buyer then makes a purchase using the cryptocurrency. Whilst the order is being finalised, the Bitcoins for the purchase are held by escrow (a third party that makes the payment), and they are then paid to the seller and a certain percentage is taken by the site. The vendor receives their payment and withdraws it from their account. They then exchange the cryptocurrency, or Bitcoin, for physical currency such as Rands or Dollars.



(Source: De La Torre 2017)

Figure 4: Silk Road payment system

While there are roughly 700 cryptocurrencies currently in use, Bitcoin remains the original and most popular amongst them all (Riggs 2018). The presence of cryptocurrencies has made it possible to shop online in dark markets such as Silk Road with the advantage of traceless payments.

While there is no way to tell how far this will go, the existence of cryptocurrency does provide a new way of spending and storing one's finances without the hassle of a bank or financial institute. Cryptocurrency explains how drugs are paid for when bought online, but it is also imperative to discuss the types of drugs that are sold on the above sites. This forms part of the discussion to follow.

# 2.7. The types of drugs that are sold online on the dark web

A drug is considered as any substance that brings upon change to the body (Hale 2017). The change may be physical, mental, emotional or physiological. There are far too many substances that exist on the dark web today which may easily fall under the term "drug".

Therefore, drugs are divided or separated into three classes which act as categories. The following subsections are a discussion of the three classes of drugs that exist and are sold online.

#### 2.7.1. Class A

Class A drugs are regarded as the most dangerous or harmful drugs. Some of the drugs that fall into this category are heroin, morphine, LSD, cocaine, ecstasy and methamphetamine. These drugs will be discussed briefly below.

## **2.7.1.1.** Heroin (Diamorphine hydrochloride)

Heroin, also known as "H, smack, junk or brown", is a depressant drug produced by processing raw opium, a natural substance found in oriental opium poppies (Compton et al 2016). Heroin is a narcotic analgesic, which means that it numbs the brain and body and kills pain. Compton et al (2016) state that as a depressant drug, heroin dulls the nervous system thus having adverse effects on the user's health. When heroin is used, the heart beats slowly, blood pressure decreases and breathing slows down and becomes shallow.

Heroin comes in three forms: brown, china white and pharmaceutical heroin (Goode 2017). Brown heroin is the most common form. The heroin content varies from 10–60% of the actual drug itself, while the rest is considered as rubbish that is added to bulk the quantity of the heroin. Brown heroin is smoked. China white heroin is found as grey granules that appear like instant coffee. China heroin can be smoked or injected.

Pharmaceutical heroin is pure heroin that is used for medical purposes. It comes in the form of a pure white powder, tablets or ampoules of clear liquid.

The heroin effect is greater than almost any other drug. When heroin is injected intravenously, the "hit" is almost instantaneous and even when smoked it takes only a few seconds (Hedegaard 2015). The initial rush is followed by a mellow, chilled-out feeling that makes the world appear rosy. The heroin effect starts to wear off after 1–2 hours depending on tolerance and the amount used. Heroin wears off completely after 3–6 hours. Heroin is a banned drug. It is illegal all over the world and having, distributing or selling it is a serious offense resulting in a very long prison sentence and a fine.







Brown Heroin

China White Heroin

Pharmaceutical Heroin

(Source: Isokov 2016)

(Source: Lawrence 2016)

Figure 5: Various types of heroin

Figure 5 above depicts various forms of heroin found in Durban, South Africa i.e. brown heroin, China white heroin and pharmaceutical heroin. This drug is considered as a depressant, meaning that its core use is to numb the brain and body and to kill pain.

#### **2.7.1.2.** Morphine

Morphine, the chief derivative of opium, is produced by refining raw opium chemically. According to Farag et al (2018), it varies in colour from pure white to light brown and is presented in the form of cubes, capsules, tablets, powders or solutions. Morphine is roughly ten times stronger than opium thus making its addictive effects on the user strong and remarkably swift. Morphine is readily available in Durban for treatment of pain symptoms especially those related to serious injuries and surgeries (The Recovery Village 2018).

The main effects of morphine are analgesia, respiratory depression and physical dependence on the drug. Morphine is used to reduce pain in many medical conditions including cancer. This drug also results in mental clouding, changes in mood and apathy. Morphine is ingested orally or by hypodermic injection (known as skin pops or mainlining). Morphine is used to produce heroin and heroin is about 20 to 25 times stronger than morphine and twice as addictive (Chiang et al 2017).





Morphine tablets in different strengths

Morphine tablets and powder

(Pictures adopted from The Recovery Village 2018)

Figure 6: Various types of morphine

Figure 6 above depicts various forms of morphine as well as the different strengths it is available in. Morphine is derived by refining raw opium chemically. Morphine is highly addictive because of its ability to reduce pain and cause drowsiness. Morphine is also used medically and may be injected or ingested.

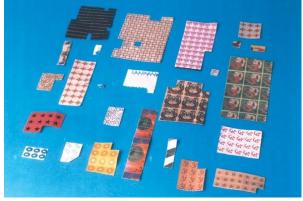
## 2.7.1.3. LSD (Lysergic Acid Diethylamide)

LSD, most commonly known as acid, is an extremely powerful, mind-altering drug, meaning that it affects your brain causing hallucinations that alter how you perceive the world (Barber 2017). The drug's hallucinogenic effects are so intense that the user's sense of reality can be greatly heightened and alterations of time and space may occur abruptly. According to Bhatia and Hassan (2017), LSD is a transparent crystal in its pure form but does not appear like that when bought.

LSD is almost always soaked into small squares of blotting paper called Tabs, blotters or pieces. Tabs come in sheets of over a hundred. Each tab is roughly 5mm square and has a picture or design on it that varies according to what is trending at the time (strawberries or penguins are examples of designs that have been used). Barber (2017) states that a small square of paper, whatever the picture, is pretty much a guarantee that it will be LSD.

Prellar et al (2018) claim that the effect of the drug begins about 30 minutes after taking it, while the peak is roughly two hours later and may remain like that until the user falls asleep. When people use LSD, the entire perception of the world changes. They see colours differently and feel textures as the opposite of what they are-some claim that they understand things that they previously did not fully comprehend. LSD is a banned drug in Durban, carrying the same penalties as heroin and cocaine (Ham et al 2017). Having any amount in one's possession could lead to a prison sentence or a fine or both. A life sentence and seizure of drug-related assets may result in the case of supplying, distributing or selling LSD.





(Source: Gholipour 2018)

LSD in the form of "tabs" and the various designs they are sold in.

## Figure 7: Various types of LSD

Figure 7 above depicts the various forms and designs of LSD. This drug is considered to be extremely powerful because of its capability of creating hallucinations.

#### 2.7.1.4. Cocaine

Cocaine, also called "Coke", is a substance known as cocaine hydrochloride. It is produced by refining the leaves of the coca bush, which grows mainly in Bolivia, Peru and Colombia.

Cocaine is extremely powerful and can stimulate the central nervous system greatly (Spillane 2017). Most street cocaine comes in the form of a white crystalline powder that resembles fine salt. It is usually bought in a "wrap" containing one gram of powder, although there is no real way to tell if the one gram is purely cocaine (Kazor et al 2014). Indeed, street cocaine is never pure. As it passes from dealer to dealer, it is "cut" with bulking agents, such as glucose or lactose. Although it can be found in concentrations as high as 60%, on the street it is often as low as 30% with 70% being the bulking agent.

Cocaine is rarely injected and is usually consumed by "sniffing" or "snorting" into the nostrils where it is absorbed slowly, its drastic effects are softened and its stimulating effects prolonged. When cocaine is "snorted", it reaches the brain in seconds meaning that the effects are felt almost immediately. The effects rarely last more than half an hour. The strength depends on the potency of the cocaine, how it is used and the user's tolerance of the drug. When user's take cocaine, they experience a sense of euphoria and well-being; life looks rosy, stress falls away and energy rises, making the user talkative and outgoing. The effects do not last too long making the user crave more. However, the more you take the less intense the effect, thus user's resort to harder drugs such as crack cocaine (Green, Dykstra & Carelli 2015). Cocaine is a banned drug in Durban and carries the highest penalties for possession, use and supply. Simply being in possession of cocaine can lead to a prison sentence and fine.



(Source: Fogoros 2018)

Cocaine in its white crystalline form

Figure 8: Cocaine in powder form

Figure 8 above shows cocaine in its white crystalline form.

## **2.7.1.5.** Ecstasy (3,4-Methylenedioxymethamphetamine)

Ecstasy, the popular dance drug, is a chemical that is used as a stimulant but also possesses hallucinogenic properties. Ecstasy releases mood-altering chemicals in the brain, such as serotonin and L-dopa, thus generating feelings of bliss and friendliness (Kelly 2016). Ecstasy comes in the form of tablets in different sizes and shapes that often have logos on them. Ecstasy may be cut with other agents, such as dog-worming pills or talcum powder, to bulk out the tablet. Sometimes drugs such as amphetamines or ketamine are added as bulking agents giving unexpected side effects.

The ecstasy effect is experienced about 30 minutes after the tablet is ingested. It peaks in an hour and last for 2–3 hours (Rowan 2015). When the effect begins, users feel an alteration in their senses- their skin is warm and tingly, lights and colours are brighter, music is louder and energy level rises, making people leap around and want to dance all night. The user is happy and wants to show affection (not necessarily in a sexual manner). Ecstasy is an illegal substance in Durban, South Africa. It falls in the same category as heroin and cocaine.

Ecstasy is illegal to possess, distribute or sell. If caught with ecstasy in one's possession, the user will be arrested and charged. The penalty is either a prison sentence or a fine or both (Norman & Ford 2015).



(Source: Hinton 2018)

Figure 9: Ecstasy tablets in various sizes and shapes

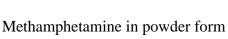
Figure 9 above shows the various sizes and shapes of ecstasy tablets. Ecstasy is known as the dance drug because once ingested, it is said to give the user the ability to dance all night long. Ecstasy is a hallucinogenic drug, thus altering the perception of the user making him/her more friendly and blissful than usual.

## 2.7.1.6. Methamphetamine

According to Roche et al (2015), methamphetamine is a man-made stimulant. It is one of the most powerful and dangerous drugs as it can be 90–100% pure. Methamphetamine is commonly known on the street in Durban as "meth" or "crystal". This drug can trigger unpleasant hallucinations that make you lose control of your actions and emotions and is found in the form of a creamy white or sandy-coloured powder which is sold in "wraps". It is also found as tablets that come in different shapes, colours and sizes. Methamphetamine is clear and glass-like, and may take the shape of crystals.

Methamphetamine is used by smoking or swallowing. Swallowing is the least dangerous method and takes about 30 minutes to take effect. Uses who smoke the drug get an intense and almost instant effect from inhaling the vapours given off by heating the drug. The "hit" can last for hours depending on the amount taken and the user's tolerance. Methamphetamine provides an intense rush of euphoria, energy and invincibility. Methamphetamine is a banned substance making it illegal to possess, distribute or sell. If it is prepared for injection, it will carry the same penalties as cocaine and heroin (Krasnova, Justinova & Cadet 2016).







Methamphetamine in glass form



Methamphetamine tablets

(Source: National Institute on Drug Abuse 2017)

Figure 10: Various forms of Methamphetamine

Figure 10 above shows methamphetamine in powder form, glass form and in the form of tablets.

#### 2.7.2. Class B

Class B drugs are the second most dangerous group of controlled substances. Class B drugs consist of amphetamines, cannabis and barbiturates. These drugs will be briefly discussed below.

## **2.7.2.1.** Amphetamines (alphamethylphenethylamine)

Amphetamine, also called speed, is a man-made drug. It is a powerful stimulant that triggers the central nervous system thus making the person more alert and energetic. Amphetamine acts like adrenaline. According to Chalmers, Lancaster and Hughes (2016), amphetamine comes in the form of a white powder, a pill or a paste. The powder comes in a folded envelope and contains one gram of the drug. Amphetamine is swallowed, inhaled or injected, with swallowing being the least dangerous of all methods. It is most risky to inject the drug as the dosage is unknown and there is the risk of being infected with disease such as HIV/AIDS. The effects of amphetamine are predictable only when a small amount is used (Lyson, Taylor & Power 2015). Within 20–30 minutes of swallowing the amphetamine (less if it is snorted or injected), there is a "rush" throughout the body and a feeling of being energetic, alert and self-confident. User's claim that they are able to stay awake for long periods of time and can dance non-stop (Chalmers et al 2016).

Amphetamine causes breathing to slow down, blood pressure to increase and the heart to beat faster. It is extremely dangerous and a banned substance in Durban. If caught in possession, the user will be arrested and charged with a fine or prison sentence attached.



Amphetamine white powder Amphetamine pills

Amphetamine paste

(Pictures adopted from: Sample 2015)

Figure 11: Forms of amphetamines (alphamethylphenethylamine)

Figure 11 above shows amphetamine in the form of a white powder, pills and paste.

#### 2.7.2.2. Barbiturates

Primarily hypnotic drugs, barbiturates work by depressing the nervous system. In small amounts, they can calm you down and in high doses they make you sleep. According to Brazier (2017), barbiturates are usually made up in the form of tablets, solutions or coloured capsules. The most common forms found today are sodium amytal (bright blue capsules containing 60mg of barbiturate), seconal (orange capsules containing 50mg of barbiturate) and Tuinal (blue and orange capsules containing 50mg of amytal and 50mg of seconal). They are usually swallowed but the powder can also be dissolved in water and then injected (Holtkamp 2016). In small doses, barbiturates make people feel relaxed, talkative and sociable in a similar way to having one or two drinks. They remove anxiety and tension and provide relief from insomnia. The effects of barbiturates last from three to twelve hours depending on tolerance and amount used. Barbiturates are strictly controlled by the South African Medicines Control Council and may only be prescribed in extreme cases and after extensive motivation. A doctor's prescription is required to obtain this and it is illegal to have this drug without a prescription.





Barbiturate capsules in their common forms

Barbiturate tablets and capsules

(Images adopted from: Davis 2018)

Figure 12: various forms of barbiturates

Figure 12 above depicts barbiturates in the form of capsules and tablets. It also shows the different forms that it is found in. This drug is a depressant, in small doses it is effective in calming the user down. However, when abused, it makes the user sleepy. This drug is obtained by having a doctor's prescription. Possessing it without one is illegal in South Africa.

#### **2.7.2.3.** Cannabis

Cannabis, also called marijuana, comes from a plant called *Cannabis sativa* that is mainly found in Asia and South America although they may be grown anywhere. The most active chemical in cannabis and the one that provides the user with the high is called delta9-tetrahydrocannabinol (THC). The amount of THC can vary greatly and cannabis that contains a high level of this chemica can cause a relatively intense high.

There are three types of cannabis: herbal, resin and hash oil (Pacula et al 2015). The most common form of cannabis is herbal. It is made from the dried leaves and flowers of the plant. Resin is made by compressing the sap on the leaves and leaves into blocks. Resin is usually mixed with tobacco and hand-rolled into a cigarette but like herbal, it can be eaten when added to food. Cannabis resin when dissolved in a solvent, filtered and allowed to evapourate leaves a thick oil which is called hash oil. Cannabis is usually smoked however some users add it to food (space muffins). Cannabis makes people feel relaxed, happy and sociable.

Some lose their inhibitions and say and do things that are out of character. It is illegal to possess, distribute or sell cannabis in Durban, South Africa. The penalties for this is a prison sentence, a fine or both.



Herbal Cannabis Cannabis resin Cannabis Hash oil

(Source: Drury 2018)

Figure 13: Various forms of cannabis

The figure 13 above depicts cannabis in its herbal form, as resin and in the form of hash oil. This is one of the most widely used drugs because it makes the user sociable, happy and relaxed. Cannabis is generally smoked however, its form is evolving with time. It can now also be found as capsules

#### 2.7.3. Class C

Class C drugs are the least dangerous class of drugs from all. This class of drugs consists of ketamine, tranquillizers and sports drugs. The researcher will briefly discuss the drugs in this class in the section to follow.

#### **2.7.3.1.** Ketamine

According to Singh, Osanah & Mathai (2016), Ketamine is a dissociative anaesthetic which means that it detaches the mind from the body. Ketamine is used as a horse tranquillizer and is related to the vetinary anaesthetic PCP (commonly known as angel dust). On prescription, Ketamine comes as a clear liquid but on the street it is found as a white powder or tablet. The powder is bought in a paper, similar to amphetamine, and can be swallowed or inhaled. The tablet is usually swallowed but can be crushed and inhaled as well. The initial rush of taking the drug happens in 30 seconds if it is injected and 20-30 minutes if swallowed. The effects of Ketamine lasts for up to three hours.

Ketamine is a schedule 8 drug which may only be used under strictly controlled conditions for the purpose of research or analysis. Ketamine is banned in Durban, South Africa and not fit for use by humans.





Ketamine clear liquid solution

Ketamine powder and tablets

(Source: Davis 2017)

Figure 14: Various forms of ketamine

The figure 14 above shows ketamine in a clear liquid form as well as in the form of powder and tablets. Ketamine is a dissociative drug that detaches one's mind from their body. The effect of this drug can be felt for up to three hours.

## 2.7.3.2. Tranquillizers

Tranquillizers are depressants that dull and slow down the central nervous system (Rankin 2015). They are prescribed to treat anxiety and sleep disorders. There are many forms of prescription tranquillizers but the varieties favoured by street users are: Nitrazepam ("Magadon"- oval white tablet that lasts for up to 12 hours), Temazepam ("Normison"- most commonly abused as it is the cheap alternative to Heroin and lasts for 6-8 hours), Diazepam ("Valium"- a small white, yellow or blue tablet that reduces anxiety and can last for up to 24 hours) and Lorazepam ("Ativan"- similar to diazepam but lasts for only 4-6 hours).

In Durban, tranquillizers are taken in the form of tablets. However, some users may crush the tablet into powder, dissolve it in water and inject it (injecting tranquillizers are said to be more dangerous than injecting Heroin). Tranquillizers are not illegal but their use is strictly controlled by the South African Medicine Control Board (McLuhan 2015).

It is illegal to possess tranquillizers without a doctor's prescription or to sell tranquillizers obtained from a doctor.





Tranquillizers in the form of tablets and capsules

(Source: Hartney 2018)

Figure 15: Various forms of tranquillizers

Figure 15 above shows tranquilizers in the form of tablets and capsules.

# **2.7.3.3. Sports drugs**

According to Mattram (2018), anabolic steroids are the main sports drugs that are used today to enhance athletic performance. Anabolic steroids are used to shorten the recovery time of muscles allowing a more rigorous regimen to be followed. Anabolic steroids come as tablets, injections or implants. The most common types are Anavar, Sustanon and Dianabol. Other sports drugs include amino acids (the building blocks of protein which come in the form of tablets or capsules), growth hormone (used for healthy body growth) and erythropoietin (assists in boosting stamina). Sports drugs can have feminising effects on men such as breast development. Woman can become masculine and experience a loss of their breasts, deep voice and excess body hair.

It is important to note that any physical fitness gained is artificial and will disappear when the user stops taking the drugs. There is a worldwide ban of steroids in sports (Kerksick & Fox 2016). Sports drugs are only legal if they are prescribed by a doctor. It is illegal to supply, distribute or manufacture sports drugs. Should an athlete test positive for any of these drugs, it could mean the end of their sporting career.





(Source: Reardon 2014)

Figure 16: Sports drugs

Figure 16 above shows the various kinds of sports drugs including Anavar and Sustanon. Sports drugs are widely available because of their ability to alter the user's body in minimum time. There are countless types and these drugs are banned worldwide.

While there are several other drugs that are sold online, the ones mentioned above are just a few that the researcher selected to briefly describe. It is now important to describe who benefits from the sale of drugs on the internet. In the paragraph to follow, the researcher will discuss the beneficiaries of this crime.

# 2.8. The beneficiaries of drug trafficking via cyberspace

It is especially difficult to determine the actual target group of online drug markets as anyone can purchase drugs online from anywhere in the world. Nevertheless, one thing is certain: the group of individuals mostly likely to be affected by the dark net drug market is the youth. During an international conference on drug abuse, young people were identified as the most vulnerable section of the population, especially those who were unable to resist peer pressure and start experimenting with drugs (Ndinda 2013). Ndinda (2013) continues by stating that young people from poor or unstable backgrounds may be tempted to see drugs as an escape from life's troubles. The researcher shares the sentiment of Ndinda (2013) as today's world and the troubles that come along with it are sometimes too much for youngsters to cope with, hence they turn to drugs to numb the pain or frustration they may feel.

With parents seldom around in many household, especially in Durban where finding employment is currently difficult to do, teenagers are left to fend for themselves thus creating a gateway to harmful substances such as drugs.

Whether it is an addiction, experimentation or actual drug dealing, the youth is definitely the most vulnerable group to drug abuse. With the internet at the tip of their fingers, there is even more reason for the youth to be drawn into drugs. It is also especially convenient for them to purchase drugs online without the seller knowing their age. There are no questions asked when buying drugs online and with the vast amount of online drug bazaars, there is always a way for them to get in touch with some sort of drug. While the youth may be the primary beneficiaries of this cybercrime, it is also fair to state that almost any individual with access to the internet may benefit from online drug bazaars. It is anonymous, secure and efficient (Bisson 2015).

The ultimate aim of any drug user is trying to avoid being detected by law enforcement. The section to follow discusses the laws and policies that are in place to combat drug trafficking in South Africa as well as via cyberspace.

# 2.9. South African legislature and policies to combat drug trafficking via cyberspace

The following discussion provides an insight into the Cybercrime and Cybersecurity Bill.

## 2.9.1. The Cybercrime and Cybersecurity Bill

The Cybercrime and Cybersecurity Bill was first published on the 28<sup>th</sup> of August 2015, updated on the 19<sup>th</sup> of January 2017 and introduced in parliament on the 22<sup>nd</sup> of February 2017 (Cohen 2017). According to the Department of Justice (2017), the Cybercrime and Cybersecurity Bill aims to keep people safe from criminals, terrorists and other harmful individuals. The Bill consolidates cybercrime laws into one place to ensure that it is easy to access for the public and law enforcement officials. Essentially, the Cybercrime Bill aims to stop cybercrime in South Africa and improve the security of the country. Finnigan (2017) identifies the main aims of the Bill to:

- Define cybercrime offences and prescribe penalties;
- Regulate jurisdiction to investigate, search, gain access or seize items in the event of a cybercrime occurrence;

- Regulate aspects of evidence;
- Provide assistance to deal with cross-border cybercrimes;
- Provide a 24/7 Point of Contact to allow for assistance for investigating cybercrime; and
- Impose obligations to electronic communications providers to assist in cybercrime investigations and to report cybercrime.

The Cyber Bill covers offences related to data, messages, computers and networks. Some of the offences covered include:

- Hacking,
- Unlawful interception of data,
- Ransomware,
- Cyber forgery and uttering, and
- Cyber extortion.

The penalties for cybercrime were initially indicated in the first draft of the Cyber Bill. However, the latest version does not provide this information. Instead, it states that the penalty for committing a cybercrime may result in a fine, imprisonment or both (Department of Justice 2017). If an individual is convicted of a cybercrime, he/she could spend between one year and fifteen years in prison, depending on the cybercrime. In cases of uncertainty, the Cybercrime Bill provides the courts with jurisdiction to try the offence. It also allows police services to investigate, search, access and seize anything whilst in possession of a warrant in the event of a cybercrime.

Whilst the Cybercrime and Cybersecurity Bill has numerous advantages in protecting South Africa from cybercrime, it is rather limited in some aspects (Khan 2015). Khan (2015) added that whilst reviewing the Bill, the researcher noted that there were no substantial references to the Bill dealing with drug trafficking via cyberspace. There are cyber laws surrounding common cybercrimes such as hacking and forgery but no laws considering online drug trafficking, thus proving the gap that this study wishes to fill, not only in criminology but in criminal justice as well. It is uncertain whether this is due to the fact that this form of cybercrime is relatively new in South Africa or whether it is due to the lack of reporting of the crime by relevant officials or the lack of detection of such mastermind criminals.

Despite the Bill having being limited in such regard, the researcher has identified two noteworthy South African laws that deal particularly well with drugs and drug trafficking in particular.

## 2.9.2 The Drug and Drug Trafficking Act No. 140 of 1992

The following discussion provides insight into the Drug and Drug Trafficking Act No. 140 of 1992.

#### 2.9.2.1. Overview of the Act

The Drugs and Drug Trafficking Act provides for the prohibition of the use of, possession of or dealing in drugs or related substances that are deemed illegal and dangerous. Essentially, the primary aim of the Act is to address the issue of drugs, drug abuse and drug trafficking.

According to Cybercrime.org.za (2017), the legal framework of the Act stipulates that it is illegal to be in possession of, to use or to deal in drug and drug-related substances. It also prohibits the manufacture and supply of certain illegal substances that may be used to produce drugs. While this law deals with traditional street trading of drugs, it can also be used to explain drug trafficking via cyberspace. While the platform may be different, the crime itself is still the same.

## 2.9.2.2. What actions are considered illegal according to the Act?

According to the Act, no person is allowed to manufacture and/or supply scheduled substances (these include substances that are used in the unlawful production of drugs). It is also prohibited to use or possess any substance that may lead to dependency (Monyakane 2016).

However, the Act does allow a few exceptions. The Department of Justice (2011) states that an individual is allowed to be in possession of a substance if:

- The person is a patient and has received the substance from a medical doctor as part of a medical prescription. For example, a person suffering with anxiety being prescribed tranquilizers.
- The substance is bought for medical purposes. For example, the oil from marijuana leaves is claimed to be effective in treating asthma and various forms of cancer.

- Has the legal capacity to possess the substance for professional use. For example, a doctor, nurse, vet or pharmacist.
- He/she is an employee of the person who is legally entitled to such substances due to profession. For example, a doctor's assistant or pharmacy assistant.

Apart from the main exceptions mentioned above, it is also illegal to provide false information to the police or to hinder a drug-related investigation.

# 2.9.2.3. What sort of information has to be reported?

According to the Department of Justice (2011), a person has the legal obligation to report any information related to a drug offence. This rule supersedes any other law that prohibits disclosing information about another person. An owner or employee at an entertainment place is obliged to report any suspicious behaviour or person if that person may be suspected of possessing or dealing in drug-related substances. Ultimately, the Act states that if any person has any information, or suspicion, of a drug-related offence, they are legally obliged to report it to law enforcement. This overrides any obligation to secrecy.

## 2.9.2.4. How should investigations be conducted?

If a police officer or any officer of law enforcement suspects any drug-related offence, he/she has the power to search any person, vehicle, premises, vessel or aircraft that is suspected of harbouring the illegal substance. However, if the suspect is a woman, she has to be searched by a female officer. A police officer may question any individual who may be able to provide any information about a drug-related offence. According to Monyakane (2016), any individual who may be withholding information might be arrested according to a warrant issued by a magistrate after being provided with information by the officer in charge of the case.

#### 2.9.2.5. What are the penalties for committing a drug-related offence in South Africa?

While the penalty for a drug-related offence does vary from case to case and is definitely not fixed, there are a few set penalties. In each case, a fine, imprisonment or both a fine and imprisonment may be issued. Any person who:

• Obstructs or fails to cooperate with a drug-related investigation may be imprisoned for no longer than twelve months;

- Uses or possesses a substance or frames a person by putting the substance in their possession may receive imprisonment for no longer than five years;
- Deals in any drug or illegal substance may receive imprisonment of no longer than ten years;
- Illegally manufactures a scheduled drug or is in possession or uses a dangerous dependency-producing substance may receive imprisonment of no longer than fifteen years; and
- Deals in a dangerous dependency-producing substance may receive imprisonment of no longer than 25 years.

The Drug and Drug Trafficking Act is a relatively effective Act in that it covers all aspects of drug-related substances (Lawrence 2016). The researcher shares the sentiment with the author when she states that it is specific and its aims are clear. The act is easy to read and understand and provides a holistic view of how the problem of drugs should be handled in South Africa. It not only speaks to the punishment relating to drugs but also elaborates on the role of the officer in the case, the penalties and what sort of information should be reported. However, more attention should be placed on drug trafficking as a whole and not solely on drug possession and use.

## 2.9.3. The Medicines and Related Substances Control Act No. 90 of 1997

This legislation is based on the principle that the abuse of any medical or related substance is harmful to health and, therefore, anything or anyone who promotes such abuse is guilty of an offence. The Medicines and Related Substances Control Act controls the abuse of all medicines in South Africa. Medicines are classified into schedules that are numbered 0 to 8. An example of a schedule 0 drug is ordinary pain killers that can be bought over the counter at a pharmacy (Berry 2015). Schedule 8 drugs are the strongest and may only be given with a doctor's prescription. Higher scheduled drugs include substances such as tranquilizers and anti-depressants. Schedule 8 drugs are banned substances, such as heroin and other dangerous drugs that may cause dependency. According to Berry (2015), the Act not only prohibits and controls the abuse of such medicines, but it is also used to act against individuals who forge prescriptions, as well as unethical doctors who supply prescriptions for high-end scheduled drugs. This legislation is concerned with the dealing in drugs for the gain of one party.

It assumes that dealing involves a negotiation between two or more parties for gain. In terms of this law, the judge has full discretion in terms of passing a severe sentence or not. This legislation does not lay down minimum sentences but it does specify maximum sentences, which are as follows:

- 1. Dealing in Schedules 7, 8 and 9 drugs carries a maximum sentence of R100,000 or 25 years imprisonment (Schedule 8 and 9 drugs are prohibited substances which include cannabis, LSD and amphetamines).
- 2. Dealing in Schedule 6 drugs carries a maximum sentence of R50,000 or 12 years imprisonment.

Essentially, the lower the Schedule of the drug, the less severe the punishment. These sentences are clearly very severe and it is important to remember that the judge reserves the right to use his/her full discretion. He/she need not pass a sentence at all if s/he believes that the person is severely drug dependent, or s/he can pass a maximum sentence if it appears that the person is making a business by dealing drugs. This legislation makes provision for restructuring the Medicines Control Council, which will be charged with the full evaluation of drugs including their medical safety and accurate marketing. The Medicines Control Council will also schedule the drugs accordingly.

At present, Schedule 8 and 9 drugs are those that are prohibited substances, meaning that they are not used medically. These include cannabis, LSD and amphetamines. Furthermore, the legislation makes provision for a police search without a warrant. However, people cannot be held for long periods without being brought before a magistrate. They cannot be detained in custody for longer than 60 hours before appearing in court. Finally, the law makes provision for the confiscation of the worldly goods of the convicted dealer. This has to be subject to the Judge President's order, but is nonetheless made provision for.

This proposed legislation is based on the promotion of health and the notion that a dealer, who is making profit from promoting drug abuse, is committing a severe offence (Pierce 2016). It is legislation that concerns itself with control and has nothing to do with treatment. This law focuses solely on the problem and how to prevent it and does not assess possible solutions as there are other laws in place to deal with the treatment of drug abuse.

While there are policies and legislation to deal with drug trafficking, this is still not sufficient to deal with the contemporary world. As times have changed, so have the methods of drug traffickers. However, South African legislation is rather limited in terms of addressing this issue. There are no set laws to deal specifically with cybercrimes, let alone online drug trafficking. Although a cybercrime bill was presented in parliament, it has not been fully passed. In addition to this, it does not cover the problem of online drug trafficking. It merely looks at issues such as bullying, cyber stalking, hacking and a few others. With this in mind, the researcher aims for this study to bridge the gap in this. This study therefore aims to provide a greater perspective of the magnitude of online drug trafficking in South Africa so that the necessary legislature and policies can be developed and put in place to combat cybercrime. The researcher also aims to highlight that with a lack of effective and appropriate legislation in place, it is also easier for criminals to get away with such a crime. This study looks at what currently exists as well as what needs to be done in order to prevent future drug trafficking from taking place via cyberspace. In bridging the gap, the researcher aims to highlight that while the platform of the contemporary criminal may be evolving, the crime itself remains very much the same and so does the motive of financial gain. This study aims to vastly explain online drug trafficking in Durban, South Africa in hopes to combat it effectively and efficiently to ensure that it does not escalate to the extent that it can no longer be maintained, like that of traditional street trading of drugs.

#### 2.10. Conclusion

This chapter addressed the different parts of the web, the types of sites that are used to traffic drugs, the means by which dark web sites are located, cryptocurrency, the types of drugs that are sold online, the beneficiaries of this cybercrime and South African laws and policies surrounding drug trafficking in general as well as via cyberspace. This chapter also explored the extent of online drug trafficking, nationally and internationally. In the chapter to follow, the researcher will discuss the theoretical framework of this study.

#### References

Africa Centre for Strategic Studies. 2017, *Interdiction efforts adapt as drug trafficking in Africa modernizes*, retrieved from https://www.africacentre.org on 25<sup>th</sup> April 2018.

Aldridge, J. & Décary-Hétu, D., 2014. *Not an eBay for drugs: the cryptomarket Silk Road as a paradigm shifting criminal innovation*, retrieved from https://www.papers.ssrn.com on 30<sup>th</sup> October 2017.

Aucoin, C., 2018. *Drug trafficking in East Africa*, retrieved from https://www.enactafrica.org on 1<sup>st</sup> May 2018.

Baghel, S., Cathcart, H. & O'Reilly, N.J., 2016. Polymeric amorphous solid dispersions: a review of amorphization, crystallization, stabilization, solid-state characterization, and aqueous solubilization of biopharmaceutical classification system class II drugs. *Journal of pharmaceutical sciences*, 105(9), pp.2527-2544.

Barber, T.X., 2017. LSD, marihuana, yoga, and hypnosis. Routledge.

Berry, C., 2015. *The Act of Cybercrime*, retrieved from https://www.masthead.co.za/newsletter/the-act-of-cybercrime/ on 30<sup>th</sup> June 2018.

Bertrand, N., 2015. *Silk Road wasn't even close to the biggest drug market on the internet*, retrieved from https://www.bussinessinsider.com/silk-road-wasnt-even-the-biggest-drug-market-on-the-internet-6?IR=T on 22<sup>nd</sup> March 2018.

Bhatia, S.C. & Hassan, A., 2017. Hallucinogen-LSD Use Disorder. *Substance and Nonsubstance Related Addiction Disorder: Diagnosis and Treatment*, p.128.

Bisson, D., 2015. *Buying illegal goods on the digital underground*, retrieved from https://www.tripwire.com on 2<sup>nd</sup> March 2018.

Brazier, M.A., 2017. a. The Electrophysiological Effects of Barbiturates. *The Nervous System: Central Nervous System Drugs*, p.219.

Bruwer, C., 2017. *Analysis: Heroin trafficking through SA. Why here and why now?*, retrieved from https://www.ewn.co.za on 1<sup>st</sup> May 2018.

Chalmers, J., Lancaster, K. & Hughes, C., 2016. The stigmatisation of 'ice' and under-reporting of meth/amphetamine use in general population surveys: a case study from Australia. *International Journal of Drug Policy*, *36*, pp.15-24.

Chiang, Y.C., Wang, R.Y., Huang, C.L., Chen, S.H., Ho, W.J., Lane, H.Y., Ho, I.K., Yang, H.T. & Ma, W.L., 2017. Reduced dosing and liability in methadone maintenance treatment by targeting oestrogen signal for morphine addiction. *Journal of cellular and molecular medicine*, 21(12), pp.3552-3564.

Cohen, T., 2017. *The Cybercrimes and Cybersecurity Bill*, retrieved from https://www.cliffedekkerhofmeyr.com on 4<sup>th</sup> May 2018.

Compton, W.M., Jones, C.M. & Baldwin, G.T., 2016. Relationship between nonmedical prescription-opioid use and heroin use. *New England Journal of Medicine*, *374*(2), pp.154-163.

Cooke, P., 2018. What is cryptocurrency, how do you buy it and what are the risks involved with investing in Bitcoin, Lota and Ripple?, retrieved from https://www.thesun.co.uk/money/513053/ on 20<sup>th</sup> March 2018.

Crawford, D., 2016. *VPNs for beginners – what you need to know*, retrieved from https://www.bestvpn.com on 3<sup>rd</sup> March 2018.

Cybercrime.org.za, 2017. *South African Law on Cybercrime*, retrieved from https://www.cybercrime.org.za/law/ on 27<sup>th</sup> June 2018.

Das, S., 2017. *The Dark Web Ratio*, retrieved from https://www.bloglayer7.net/darkweb\_part1/2-14/ on 30<sup>th</sup> April 2018.

Davis, K., 2017. What are the uses of Ketamine?, retrieved from http://www.medicalnewstoday.com/articles/302663.php on 3<sup>rd</sup> May 2018.

Davis, K., 2018. *Everything you need to know about Barbiturates*, retrieved from https://www.medicalnewstoday.com/articles/310066.php on 30<sup>th</sup> April 2018.

Davis, M.T., Egan, D.P., Kuhs, M., Albadarin, A.B., Griffin, C.S., Collins, J.A. and Walker, G.M., 2016. Amorphous solid dispersions of BCS class II drugs: A rational approach to solvent and polymer selection. *Chemical Engineering Research and Design*, 110, pp.192-199.

De La Torre, A., 2017. What is Bitcoin & Dark Markets History, retrieved from https://www.slideshare.net/AlejandroDeLaTorre10/what-is-bitcoin-dark-markets-history on 25<sup>th</sup> April 2018.

Department of Health, 2017. *Medicines and Related Substances Act No. 90 of 1997*, retrieved from https://www.samed.org.za on 6<sup>th</sup> May 2018.

Department of Justice, 2011. *Drugs and Drug Trafficking Act No. 140 of 1992*, retrieved from https://www.justice.gov.za on 6<sup>th</sup> May 2018.

Department of Justice, 2017. *Cybercrimes and Cybersecurity Bill*, retrieved from https://www.justice.gov.za on 4<sup>th</sup> May 2018.

Drury, A., 2018. *Everything you need to know about marijuana: what is cannabis?*, retrieved from https://www.hightimes.com/guides/cannabis/ on 28<sup>th</sup> April 2018.

Edwards, J., 2013. This is the Physics student and used book seller who allegedly ran the Silk Road market for drugs and assassins, retrieved from https://www.businessinsider.com on 25<sup>th</sup> January 2018.

Ellis, G.F.R., Meintjies, E.M., Stein, D.J., & Thomas, K.G.F., 2012. *Substance use and abuse in South Africa*, UCT Press, South Africa.

Fahey, M., 2015. What were the most popular drugs on Silk Road?, retrieved from https://www.cnbc.com/2015/06/01/what-were-the-most-popular-drugs-on-silk-road.html on 22<sup>nd</sup> March 2018.

Farag, M., Spinthakis, N., Srinivasan, M., Sullivan, K., Wellsted, D. & Gorog, D.A., 2018. Morphine Analgesia Pre-PPCI Is Associated with Prothrombotic State, Reduced Spontaneous Reperfusion and Greater Infarct Size. *Thrombosis and haemostasis*, *118*(03), pp. 601-612.

Finnigan, J., 2017. *Cybercrime and Cybersecurity Bill introduced in Parliament*, retrieved from https://www.golegal.co.za on 4<sup>th</sup> May 2018.

Fogoros, R.N., 2018. *Cocaine and the heart*, retrieved from https://www.verywellmind.com/cocaine-and-the-heart-1745713 on 21<sup>st</sup> April 2018.

Fullerton, A., 2017. *Class of 2017: The students turning to the Dark Web for their drug fix*, retrieved from https://www.independent.co.uk on 25<sup>th</sup> April 2018.

Gholipour, B., 2018. *What do blind people "see" when they take LSD?*, retrieved from https://www.livescience.com/62343-psychedelics-lsd-blind-people.html on 2<sup>nd</sup> May 2018.

Goode, E., 2017. Introduction. In *Marijuana* (pp. 1-13). Routledge.

Green, J.L., Dykstra, L.A. & Carelli, R.M., 2015. Examination of cocaine dose in a preclinical model of natural reward devaluation by cocaine. *Behavioural pharmacology*, 26(4), p.398.

Greenberg, A., 2015. A heroin dealer tells Silk Road jury what it was to sell drugs online, retrieved from https://www.wired.com on 22<sup>nd</sup> March 2018.

Greenberg, A., 2014. *Drug Market "Agora" replaces Silk Road as king of the darknet*, retrieved from https://www.wired.com/2014/09/agora-bigger-than-silk-road/ on 28<sup>th</sup> April 2018.

Grills, J., & Grills, M., 1987. Drug Abuse, Oxford University Press, Cape Town.

Ham, S., Kim, T.K., Chung, S. & Im, H.I., 2017. Drug Abuse and Psychosis: New Insights into Drug-induced Psychosis. *Experimental neurobiology*, 26(1), pp.11-24.

Hartney, E., 2018. *How safe are tranquilizers*, retrieved from https://www.verywellmind.com/what-are-tranquilizers-22501 on 2<sup>nd</sup> May 2018.

He, B., Patel, M., Zhang, Z., & Chang, K.C.C., 2007. "Accessing the deep web. *Communications of the ACM*, 50(5), pp. 94-101.

Hedegaard, H., Chen, L.H. & Warner, M., 2015. Drug-poisoning deaths involving heroin: United States, 2000-2013.

Hickey, S., 1985. Drug Abuse, Right Books. South Africa.

Hinton, P., 2018. *Dutch researchers find ecstasy and cocaine are getting stronger*, retrieved from https://www.mixmag.net/read/dutch-researchers-find-ecstasy-and-cocaine-are-getting-stronger-news on 29<sup>th</sup> April 2018.

Holtkamp, M., 2016. Should Barbiturates be Used in Refractory Status Epilepticus?, *Journal of Clinical Neurophysiology*, 33(1), pp.22-24.

Isokov, V., 2016. *What does heroin look like?*, retrieved from https://www.quora.com/what-does-heroin-look-like on 23<sup>rd</sup> April 2018.

Jango, D., 2018. *How to easily access Silk Road 3.1 (12 easy steps)*, retrieved from https://www.darkwebnews.com on 19<sup>th</sup> February 2018.

Kelly, B.C., 2016. Conceptions of Risk in the Lives of Ecstasy-Using Youth. In *Drugs, Clubs and Young People* (pp. 64-80). Routledge.

Kentish, B., 2017. *Proportion of UK drug users using dark net to buy drugs doubles in three years*, retrieved from https://www.independent.co.uk on 25<sup>th</sup> April 2018.

Kerksick, C.M. & Fox, E., 2016. Sports Nutrition Needs for Child and Adolescent Athletes. CRC Press.

Khan, F., 2015. *Cybercrime law in South Africa*, retrieved from https://www.labourguide.co.za/most-recent/2178-cybercrime-law-in-south-africa on 27<sup>th</sup> June 2018.

Kozor, R., Grieve, S.M., Buchholz, S., Kaye, S. & Darke, S., 2014. Regular Cocaine Use Is Associated with Increased Systolic Blood Pressure. *Aortic Stiffness*.

Krasnova, I.N., Justinova, Z. & Cadet, J.L., 2016. Methamphetamine addiction: involvement of CREB and neuroinflammatory signaling pathways. *Psychopharmacology*, 233(10), pp.1945-1962.

Lawrence, J., 2016. *Hydromorphone could prevent opioid addicts from using street heroin*, retrieved from https://www.pharmaceutical-journal.com/news-and-analysis/news/20200981.article?firstpass=false on 8<sup>th</sup> May 2018.

Leswing, K., 2017. The FBI just took down AlphaBay, an online black market for drugs that was 10 times bigger than Silk Road, retrieved from

https://www.businessinsider.com/alphabay-online-black-market-taken-down-silk-road-2017-7?IR=T on 30<sup>th</sup> March 2018.

Leyden, J., 2017. *AlphaBay and Hansa: About those dark web marketplaces takedowns*, retrieved from https://www.theregister.co.uk/2017/07/24 on 3<sup>rd</sup> April 2018.

Lyson, G., Taylor, G. & Power, J., 2015. The analysis of amphetamine using Thin Layer Chromatography, Chartered Society of Forensic Science, Postgraduate conference, Manchester.

Mark, J.J., 2014. Silk Road, retrieved from https://www.ancient.eu on 14th December 2017.

Martin, K. & Katz, A., 2016. The role of barbiturates for alcohol withdrawal syndrome. *Psychosomatics*, *57*(4), pp.341-347.

Mathews, L., 2017. What TOR is and why you should use it to protect your privacy, retrieved from https://www.forbes.com/sites/leemathews/2017/01/27/what-is-tor-and-why-you-should-use-it-to-protect-your-privacy on 9<sup>th</sup> March 2018.

Mbuya, J.C., 2002. Drug Abuse in Southern Africa, Design and Layout.

McLuhan, M., 2015. Culture is our business. Wipf and Stock Publishers.

Minnaar, A., 2017. Online "underground" marketplaces for illicit drugs: the prototype case of the dark web website, *Acta Criminologica: Southern African Journal of Criminology*, *Vol.30* (1), pp.23-47.

Monyakane, M., 2016. *The South African Drugs and Drug Trafficking Act No. 140 of 1992*, retrieved from https://www.linkspringer.com on 6<sup>th</sup> May 2018.

Mosk, M., 2014. *Underground website used for black market drug sales bigger than the original, report says*, retrieved from https://www.abcnews.go.com/blotter/silk-road-underground-website-black-market-drug-sales/story?ID=23528712 on 25<sup>th</sup> April 2018.

Mottram, D.R., 2018. Drugs and their use in sport. In *Drugs in sport* (pp. 25-42). Routledge.

National Institute on Drug Abuse, 2017, *What is MDMA?*, retrieved from https://www.drugabuse.gov/publications/research-reports/mdma-ecstasy-abuse/what-mdma on 1<sup>st</sup> May 2018.

Ng, E., 2017. *Chinese glassmaker takes Silk Road with eye on spot among world's top three producers*, retrieved from https://www.scmp.com on 14<sup>th</sup> December 2017.

Nicol, W., 2016. A beginners guide to TOR: how to navigate through the underground internet, retrieved from https://www.digitaltrends.com/computing/a-beginners-guide-to-Tor-how-to-navigate-through-the-internet on 8<sup>th</sup> March 2018.

Norman, L.B. & Ford, J.A., 2015. Adolescent ecstasy use: A test of social bonds and social learning theory. *Deviant Behavior*, *36*(7), pp.527-538.

Pacula, R.L., Powell, D., Heaton, P. & Sevigny, E.L., 2015. Assessing the effects of medical marijuana laws on marijuana use: the devil is in the details. *Journal of Policy Analysis and Management*, 34(1), pp.7-31.

Palamar, J.J., Acosta, P., Ompad, D.C. & Cleland, C.M., 2017. Self-reported ecstasy/MDMA/"molly" use in a sample of nightclub and dance festival attendees in New York City. *Substance Use & Misuse*, 52(1), pp.82-91.

Peek, K., 2015. *Most of the web is invisible to Google: Here's what it contains*, retrieved from https://www.popsci.com/dark-web-revealed on 2<sup>nd</sup> November 2017.

Pierce, L., 2016. *Report: The need for modernized South African cybersecurity laws*, retrieved from https://www.bdo.co.za/en-za/insights/2016/insights/the-need-for-modernized-south-african-cybersecurity-laws on 6<sup>th</sup> July 2018.

Pierce, L., 2017. Articles: The South African Cybercrime and Cybersecurity Bill 2017....Much Better!, retrieved from https://www.bdo.co.za on 4<sup>th</sup> May 2018.

Preller, K., Schilbach, L., Duerler, P., Pokorny, T. & Vollenweider, F., 2018. T181. LSD Increases Social Adaptation to Opinions Similar to One's Own. *Biological Psychiatry*, 83(9), p.S198.

Rankin, D.C., 2015. Sedatives and tranquilizers. *Veterinary Anesthesia and Analgesia: The Fifth Edition of Lumb and Jones*, pp.196-206.

Reardon, C.L., 2014. *Drug abuse in athletes*, retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4140700/ on 6<sup>th</sup> May 2018.

Rennie, P., Dehm, S. & Gewirth, D., 2015. *Development of a New Class of Drugs to Inhibit All Forms of Androgen Receptor in Castration-Resistant Prostate Cancers*. University of British Columbia Vancouver, BC Canada.

Riggs, M., 2018. *If you bought drugs on Silk Road using Bitcoin, the Feds might know who you are*, retrieved from https://www.reason.com/blog/2018/01/30/if-you-bought-drugs-on-the-silk-road-site on 19<sup>th</sup> February 2018.

Roche, A., McEntee, A., Fischer, J. & Kostadinov, V., 2015. Methamphetamine use in Australia. *Adelaide: National Centre for Education and Training on Addiction (NCETA)*.

Rowan, J., 2015. Ordinary ecstasy: The dialectics of humanistic psychology. Routledge.

Sample, B., 2015. Series: Assessing drug abuse trends in the United States-amphetamines, retrieved from https://www.blog.employersolutions.com/series-assessing-drug-abuse-in-the-united-states-amphetamines/ on 6<sup>th</sup> May 2018.

Shange, N., 2015. *A look into SA's relationship with drug trafficking*, retrieved from https://www.news24.com on 1<sup>st</sup> May 2018.

Singh, S., Osahan, N. & Mathai, A., 2016. Abstract PR460: Effect of Priming with Rocuronium And Low Dose Ketamine On Intubating Conditions-Is Ketamine Beneficial?. *Anesthesia & Analgesia*, 123(3S\_Suppl), pp.582-583.

Skelton, P., 2016. *Class A drugs*, retrieved from https://www.kiwifamilies.co.nz/articles/class-a-drugs/ on 5<sup>th</sup> April 2018.

Spillane, J.F., 2017. The First Era of Cocaine Abuse and Control. *Dual Markets: Comparative Approaches to Regulation*, p.55.

Stoppard, M., 2000. Drugs into file, Darling Kindersley, South Africa.

The Recovery Village, 2018. *Drug Trafficking by the numbers*, retrieved from https://www.therecoveryvillage.com on 26<sup>th</sup> April 2018.

The Recovery Village, 2018. *Morphine pills*, retrieved from https://www.therecoveryvillage.com/morphine-addiction/morphine-pills/#gref on 24<sup>th</sup> May 2018.

Thevis, M., Thomas, A. & Schänzer, W., 2014. Detecting peptidic drugs, drug candidates and analogs in sports doping: current status and future directions. *Expert review of proteomics*, 11(6), pp.663-673.

Van der Westhuizen, J., & Fourie, J., 1988. Wheels of Misfortune: Alcohol and drug abuse, Butterworth Publishers, South Africa.

Veliz, P.T., Schulenberg, J. & McCabe, S., 2017. Early exposure to prescription drugs and substance use disorder symptoms in adulthood. *Drug & Alcohol Dependence*, 171, p.e207.

Zapotosky, M., 2017. *Justice Dept announces takedown of AlphaBay, a dark web marketplace for drugs and other illicit goods*, retrieved from https://www.washingtonpost.com/world/national-security on 3<sup>rd</sup> April 2018.

### **CHAPTER 3: THEORETICAL FRAMEWORK**

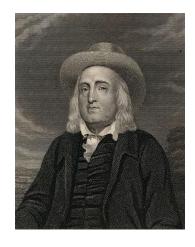
#### 3.1. Introduction

Kraska and Neuman (2008) state that a theory is a "system of interconnected ideas that condenses and organizes knowledge for purposes of understanding and/or explanation". In simpler terms, a theory assists in explaining why a crime occurs. For the purpose of this study, the researcher will make use of two specific theories to explain the use of cyberspace to traffic drugs. These theories are the Classical School of Thought and the Strain Theory. In this chapter, the researcher aims to create a better understanding as well as to delve deeper into the phenomenon in question that is online drug trafficking. The chapter will begin by discussing each theory followed by its application to the study.

## 3.2.1. The Classical School of Thought



Cesare de Beccaria (1738–1794)



Jeremy Bentham (1748–1832)

Figure 17: The founding fathers of the Classical School of Thought (Source: Allen 2017)

The Classical School of Thought was developed in the eighteenth century by Cesare de Beccaria and Jeremy Bentham (Tierney 2009). The Classical School of Thought may very well be described as a body of thought about the reform of criminal behaviour and also the best form of punishment for this behaviour. Beccaria and Bentham shared an idea that criminal behaviour could be understood and controlled by using free will and rational thought as the basis for their theory (Brent & Kraska 2015). However, before getting to the crux of this theory, the researcher will delve deeper by looking at how this theory came about.

In the second half of the Eighteenth century, the Classical School of Thought reflected the philosophical and political thought associated with a period of time known as the "Age of Reason" or the "Enlightenment" period (Tierney 1996). Enlightenment thinkers included Voltaire, Montesquieu, Rousseau, Locke, Hobbes and others. Philosophers argued that if a suitable mechanism for maintaining social order was established, men would act rationally and control their passions, recognising that to do otherwise would lead inevitably to social chaos, thus the idea of social contract was put forward in an aim to maintain social order. These theorists, or thinkers, spoke of natural rights, citizenship and equality. Freilich (2015) states that at the core of their thinking was the view that individuals are motivated primarily by the desire for pleasure and a desire to avoid pain. The theorists also stated that while men are self-seeking and selfish, they are rational as well.

According to Messner and Rosenfeld (2017), Enlightenment thinkers believed greatly in the idea of a social contract. The notion of social contract implies that the people give up personal sovereignty to a government or other authority in order to receive or maintain social order through the rule of law. According to these thinkers, people such as the church leaders and aristocracy of that time had combined to form a corrupt and repressive union against the peasants and the rising middle class (Morrison 2014). In their view, human beings could choose either good or evil and human decisions were considered to be governed by selfserving rationality. Social contract meant that all men, using reason, would enter into an agreement where they would give up some of their freedoms in return for a well-ordered, tranquil society. This would also entail the universal acceptance of the authority of the state to introduce and enforce laws and, if necessary, administer punishment. However, Enlightenment philosophers stated that such a system would only work if there was mutual agreement that all individuals are born equal and should share the same fundamental human rights (Chism & Steinmetz 2017). This explains the importance of creating a society founded upon notions of citizenship, rights and equality. Despite the concept of social contract existing in the eighteenth century, it was never fully adopted.

The Enlightenment thinkers had a major influence in the process of developing the Classical School, which was seen as the first "real" criminology (Bernburg 2017). The Enlightenment philosophers and their ideas influenced the founding fathers of the Classical School of Thought. One of the founding fathers was Cesare de Beccaria (1738–1794).

It was Beccaria who pulled together the most powerful eighteenth century ideas of democratic liberalism and connected them to issues of criminal justice. Although Beccaria was born into an aristocratic family and had the benefit of a solid education in the liberal arts, it was not predicted that his book on penal reform titled *On Crimes and Punishment* would eventually be acknowledged to have had "more practical effect than any other treatise ever written in the long campaign against barbarism in criminal law and procedure" (Cohen 2017).

To understand Beccaria's great contribution to criminology, it is crucial to examine the social context of his life at the time in which this theory had been developed (West 2017). Unlike other countries that protected their citizens through equal protection, due process and trial by their peers, Beccaria's Europe was rather harsh (Tierney 2009). This harsh treatment of European citizens was applied to the police, criminal procedures and punishment. Once arrested, the accused had few legal protections. He/she was cut off from legal assistance, subjected to torture and hidden from family and friends. Witnesses against the accused testified in secret and once guilt was determined, punishments were severe. These ranged from burning people alive, many forms of mutilation, whipping, branding and pillory. Death by execution in the early eighteenth century London took place every six weeks, with five to fifteen condemned hanged on each occasion (Patemoster & Fisher 2017). Beccaria was extremely critical of the system of justice in operation in Europe at the time. The system was arbitrary, corrupt, barbaric and, most importantly, inefficient. A legal procedure known as *Lettres de cachet* illustrates how arbitrary and corrupt the criminal justice system was at that time:

"A *Lettre de cachet* was a sealed administrative order signed by the monarch containing a command that an individual be detained. It was to be executed swiftly, secretly and with no recourse to the courts. The order gave no explanation, there was no trial and no legal mechanism for appeal, and release was dependent upon the monarch's pleasure. A *lettre de cachet* could be granted to a private person for action on another individual" (Williams & McShane 2010).

Beccaria became familiar with these conditions through the association and friendship of Alessandro Verri, who held the office of Protector of Prisoners in Milan, Italy, where Beccaria lived. Beccaria was outraged by the harsh form of punishment that people were receiving.

Having recently become familiar with the writings of scholars such as Montesquieu, Helvetius, Voltaire, Bacon, Rousseau, Diderot and Hume, Beccaria wrote his book *An Essay on Crimes and Punishment* in 1764 to express his views. The book took eleven months to write and because Beccaria was worried about political reprisals and feared prosecution from the monarchy for his views, he published the book anonymously (Nagin, Cullen & Jonson 2018). Beccaria's reasoned arguments from his book can be summarised in the following simple terms:

- 1. To escape war and chaos, individuals gave up some of their liberty and established a contractual society. This established the sovereignty of a nation and the ability of the nation to create criminal law and punish those who broke the law.
- 2. Since criminal laws placed restrictions on individual's freedom, they should be restricted in scope. They should not be employed to enforce moral virtue. To prohibit human behaviour unnecessarily was to increase rather than decrease crime.
- 3. The presumption of innocence should be the guiding principle in the administration of justice, and at all stages of the justice process, the rights of all parties involved should be protected.
- 4. The complete criminal law code should be written and should define all offences and punishments in advance. This would allow the public to judge whether and how their liberties were being preserved.
- 5. Punishment should be based on retributive reasoning because the guilty had attacked another individual's rights.
- 6. The severity of the punishment should be limited and should not go beyond what is necessary for crime prevention and deterrence.
- 7. Criminal punishment should correspond with the seriousness of the crime. The punishment should fit the crime, not the criminal. For example, fines would be appropriate for simple thefts whereas harsher sanctions of corporal punishment and labour would be acceptable for violent, heinous crimes.
- 8. Punishment must be a certainty and should be inflicted quickly.
- 9. Punishment should not be administered to set an example and should not be concerned with reforming the offender.

- 10. The offender should be viewed as an independent and reasonable person who weighed the consequences of the crime. The offended should be assumed to have the same power of resistance as non-offenders.
- 11. The aim of a very good system of legislation was the prevention of crime. Beccaria reasoned that it was better to prevent crimes than to punish those who commit them.

Beccaria argued that a rational system of justice would actually "work" in preventing crime. His essay made reference to ideas surrounding the notions of justice and human rights. It stated that the law and judicial process should treat all citizens equally and fairly. Furthermore, Beccaria believed that the nature of the punishment should reflect the nature of the offence and its harmfulness to society, but the severity of the punishment should only be sufficient to act as a deterrent as excessive punishment would be inefficient (Vito & Maahs 2015). Beccaria's approach to punishment is the application of the pleasure-pain-principle. This means that the pleasure of the crime should be outweighed by the pain of the punishment. This was the foundation of classical thinking. The punishment should be proportional to the social harm of the crime rather than the harm to the individual victim *per se*. Revenge, or retribution, is based on the principles that punishment should be in proportion with the harm caused to the victim, which is seen as what the offender deserves. However, Beccaria did not agree with this. He strongly rejected the death penalty as well as torture, all of which were common forms of punishment during that time period.

Beccaria's ideas not only resonated in Europe. In Britain, Beccaria's ideas were popularised by Jeremy Bentham (1748–1832). Bentham was one of the founding fathers of the Classical School of Thought and played a significant role, just as Beccaria did. He also criticised the earlier methods of punishment, especially those of the Enlightenment thinkers. Bentham greatly admired Beccaria's *An Essay on Crime and Punishments*. However, he was particularly interested in issues surrounding law, social order and penal reform. In coherence with Beccaria's thinking, Bentham viewed individuals as rational beings who apply a pleasure-pain-principle in deciding whether to commit a crime. Bentham referred to this as hedonism. He also argued that swift punishment, proportional to the harm inflicted on the society by the crime, would act as an effective deterrent of crime.

However, Bentham believed that the system would only be successful if the law itself were logically structured and arranged in such a way that it would ensure that people would be well aware of what the rules were. Despite his interest in Beccaria's work, Bentham was much more concerned about the use of imprisonment as a form of punishment for wrongdoers (van der Westhuizen 2011). He designed what he thought of as the ideal prison and called it Pantopticon. Its key architectural feature was a central tower that was to be occupied with guards, encircled by the prisoners' cells. This allowed the guards to view any criminal in any cell that they chose to while remaining hidden themselves. For Bentham, this represented the most efficient system of surveillance, in that prisoners never knew whether or not they were being watched and it therefore required relatively few guards. In effect, prisoners would feel that they were under constant surveillance. While this was a remarkable idea, the Pantopticon was never built.

### 3.2.2. Justification for the use of the Classical School of Thought

Several criminological theories exist and may very well have been used by the researcher to explain the phenomenon of drug trafficking via cyberspace. However, the researcher has chosen the Classical School of Thought because it speaks of free will, that which is at the core of human behaviour. This theory provides a naturalistic explanation for crime and its occurrence. The Classical School of Thought looks at human behaviour in its most basic form, that being free will and the fact that humans are rational beings. With online drug trafficking being a relatively new area of study in South Africa, the researcher felt it was necessary to go back to basics, in terms of this theory being one of the earliest explanations for crime, to better understand this type of cybercrime.

## 3.2.3. Application of the Classical School of Thought to drug trafficking via cyberspace

The Classical School of Thought emphasises the free will to offend coupled with rational choice. Drug traffickers make their own decisions and choices. They are aware of the consequences involved (this includes fines, confiscation of drugs, criminal record and imprisonment). The researcher is of the opinion that drug traffickers offend because of the free will that they possess. They have the free will to choose to traffic drugs based on the calculated reward of trafficking and the punishment. They are free to do as they please.

The moral wrongdoing is fed by their personal choice to participate in crime. These individuals are conscious agents who are unaffected by internal forces (lack of conscience and morals) or external forces (punishment, laws, judiciary) (Tierney 2009). For this reason, their interest lies only in the attainment of their goals, which is usually monetary. Cesare Beccaria's theory was that criminals have control over their behaviour, they choose to commit crimes and they can be deterred by the threat of punishment. Using Beccaria's theory, we can explain drug trafficking as a choice that individuals make. Irrespective of purchasing, selling or distributing drugs, it is all a choice made by the person. Such people are driven by the idea of "easy money" and they are not concerned with the manner in which they have to achieve this (West 2017).

According to the Classical School of Thought, the individual weighs the pros and cons of committing a particular crime (Freilich 2015). The person calculates whether the potential pleasure from trafficking drugs is worth the potential punishment. This is where the idea of rational thinking is crucial. One of the features of the theory, hedonistic calculus, explains that the individual will make a decision to commit the crime (online drug trafficking) when there is maximum pleasure and minimum pain. With drug trafficking, the offender knows that it is easier to traffic drugs as there is more money involved than any ordinary job. In other words, there is maximum amount of money being received with little work being done. It is the ultimate gratification that the drug trafficker seeks from committing the crime of online drug trafficking. This theory can also explain online drug trafficking in terms of opportunity, costs and benefits when considering the offenders decision to commit the crime. With the innate ability to think rationally and naturally want to attain more pleasure than pain (the pleasure being money and the pain being punishment), the internet provides the criminal with ample opportunity, which is also cost effective, to commit a crime such as online drug trafficking. With the internet being readily available and anonymity being an automatic benefit, there is a wide range of economic choices available for the criminal to take advantage of.

The Classical School of Thought is a system that responds to the crime instead of focusing solely on the criminal. It suggests that the punishment should fit the crime. We can see how this has been applied to present day crime by the decision made by ex-President Obama to reduce the sentence of 46 inmates who were convicted of nonviolent drug crimes.

Obama identified that these people were not hardened criminals and that their punishment did not fit their crime. He identified 14 inmates who had received a life sentence and several other who had received 20 years or longer sentencing for nonviolent drug offenses (one of which is drug trafficking). Katina Smith was one of these offenders who received clemency. She had been sentenced in July 2000 for 292 months (24 years) for conspiracy to possess with intent to distribute cocaine and crack. Her sentence was commuted by President Obama. According to Roberts (2016), Katina Smith is now free. The researcher has included this example to illustrate the Classical School of Thought theory. The theory emphasises that the punishment must fit the severity of the crime, but in the case mentioned above this was not the case, hence the researcher provided the example to show that even in our modern day, there are many who are punished heavily for drug-trafficking crimes that are of a small nature. There are times where drug traffickers receive the same sentence as those who are in possession of two or five grams of the drug. The Classical School of Thought aimed for punishment to be fair for the criminal so that when released, instead of being angry about their sentence and going back into trafficking drugs, criminals will not want to commit further crimes of such nature.

The Classical School of Thought explains drug trafficking in that the crime is committed with the offender being fully aware of what he or she is doing, regardless of the reason that he or she is doing it for. Clearly, the fact that the person has made the decision to commit such a crime means that he or she has assessed and weighed the risks and rewards involved. The researcher is of the opinion that despite being rational, it is human nature to rather follow that which provides gratification and reward than to logically assess individual behaviour as being wrong or immoral. Even if it means that the consequences or risks are more than the reward, individuals may still take the opportunity to traffic drugs via cyberspace, especially if they have already made a firm decision on trafficking drugs. Individuals use their own knowledge and understanding to examine the options available and then choose the action that holds the maximum benefit for them. In this way, individuals only consider the consequences that their actions will have on themselves and do not take the effect of those actions on other people into account.

In summary, the Classical School of Thought offered the first naturalistic explanation for the occurrence of crime and the basic ideas about crime. Beccaria and Bentham saw human beings as being rational and having a free will. They called for civil rights, determinate sentencing and deterrence and argued that everyone had the right to social and political freedom and to equality before the law. They called for set rules of evidence and testimony. Sentencing was to fit the crime and be determinate, with fixed-period sentencing aimed at deterring and discouraging further criminal deeds. The researcher made use of this theory to explain that online drug traffickers take advantage of the opportunity that the internet provides; that criminals make their own choice to commit such a crime; that they weigh the pros and cons of this crime and that the drive for easy money supersedes their innate ability to think rationally. In concluding this theory, the Classical School of thought suggests that while punishment should be used to deter crime, it is also that very same punishment that would be inefficient if used incorrectly. The researcher will proceed with the chapter by discussing the second theory, the Strain Theory.

## 3.3.1. The Strain Theory



Robert K. Merton (1910–2003)

Figure 18: The Strain Theory pioneer (Source: Crossman 2017)

The Strain Theory was developed in 1938 by Robert K. Merton, an American sociologist. Merton was not a criminologist *per se*. Rather, he was a grand theorist of the functionalist school, whose writings had a major influence on American sociology during the twentieth century (Deflem 2017).

However, Merton was influenced by the work of Pitirim Sorokin, whose book titled *Contemporary Sociological Theories* published in 1928 drew attention to Emile Durkheim's work on anomie. This resulted in Merton turning his attention to crime and deviance, specifically in an article titled *Social Structure and Anomie*, which was first published in 1938 in his book *Social Theory and Social Structure*. Modifications of this article appeared in 1949, 1957, 1964 and 1968. Merton's article has been widely cited within criminology with some suggesting that it is the most commonly cited work in the literature of criminology. However, to understand the Strain Theory, it is imperative to first discuss the concept of anomie.

Emile Durkheim introduced the term "anomie" in his books *The Division of Labor in Society* (1893) and *Suicide* (1897). He used the term anomie to describe a condition of moral deregulation that occurs in society (Robert 2018). Robert (2018) goes further to explain that the rules that have taught people how to behave towards each other have been broken down. Individuals in the society then do not know what to expect from one another. Anomie refers to a breakdown in either the rules of society or the moral norms which results in a disruption of normal societal conditions. In his well-noted work, *Suicide*, Durkheim used the term anomie to describe a social condition in which institutionalised norms lost their power to regulate human needs and action. He argued further that as Western society modernised, a great emphasis was placed on achieving industrial prosperity without corresponding attention to restraining individuals' appetite for success. Durkheim observed that this development left the economic sphere in a chronic state of anomie; a state of normlessness. People were now free, if not encouraged, to seek limitless economic success.

Merton's Anomie Theory, more commonly known as Strain Theory, concentrated mainly on deviance and not criminality (Ugwudlike 2015). After reading the works of Karl Marx during the 1930s, with specific attention on the American capitalist system and division of classes, Merton stated that society placed too much emphasis on material success. He claimed that individuals were too preoccupied with money, power and status and eventually abused all three. Merton rejected the idea that deviant and criminal behaviour can be explained in terms of individual psychology and biology and the researcher agrees with this sentiment (Agnew 2015). For him, the causes of crime and deviance lie in the nature of the American society itself, as it does in society in Durban and South Africa as a third world country.

Merton saw it as a society built upon the promise of equality of opportunity, where citizens are socialised into believing that, provided they work hard and have the right attitudes, everyone can achieve success. Merton's Strain Theory saw stress arising from the lack of opportunity for the next individual to achieve a desired level of success (Agnew 2017). Essentially, this can be seen when individuals in the society aim to meet the standards of those around them and, when they cannot do so, they experience a level of stress that leads to drastic measures, such as online drug trafficking, to meet the so-called requirements that society has specified for that individual.

According to van der Westhuizen (2011), Merton divided society into two structures: the cultural structure and the social structure. The cultural structure deals with society's goals or dreams and what the members of the society value and strive for. The social structure deals with the institutionalised means by which the goals are supposed to be achieved. In a well-balanced society, these two structures are integrated so that all members know and accept the goals and have the appropriate constitutional means to achieve them. However, not all people will be uniformly successful in achieving the goals due to various biological, sociological and psychological factors that might have an impact on them. Factors such as unemployment, poverty, social class structures, differential opportunity structures, mental illness and intelligence might cause a disjunction between the goals and the means (Sealock 2017). This is what Merton referred to as anomie.

Anomie produces strain or stress in those who realize that they cannot achieve their goals through the prescribed institutionalised means. This causes huge frustration within people and as a result they reject the prescribed means of laws, rules, values, norms and beliefs. Hence, anomie is a sense of normlessness. They then follow so-called "illegitimate" means to achieve their success goals. The opposition of the cultural structure and social structure creates intense pressure for deviation and the response to this is referred to as adaptation. According to Stinchcombe (2017), Merton's theory is best equipped to explain crimes committed by members of the middle and upper classes, such as insurance policy murder, fraud, organised crime and the sale or manufacture of drugs. This approach also provides an excellent explanation for crimes driven by emotion in the lower social classes resulting from status frustration, stress and a lack of equal opportunity. The following section is a discussion of Merton's typology of individual adaptation to anomie.

# 3.3.2. Merton's typology of individual adaptations to anomie

Merton identified five modes of adaptation. He stated that three of the adaptations (innovation, retreatism and rebellion) are deviant while the other two (conformity and ritualism) are not (Lilly, Cullen & Ball 2011). Below, each adaptation will be briefly discussed.

- 1. **Innovation**: in this case, individuals accept the cultural goals but reject the institutional means to attain these goals. This adaptation method occurs when there is a lack of equal opportunities for all. Here, lower-class youths are assumed to become deviant. They are likely to steal if they are denied legitimate opportunities to achieve their aspirations by their disadvantaged economic position in the social structure of society.
- 2. **Retreatism:** here, individuals reject both the cultural goals and the social means and withdraw or retreat from society. These people have been socialised to accept both the goals and the means of society. However, through failure to achieve success or to escape the judgment of others, they drop out of society. People who adapt (or maladapt) in this manner are *in* the society but not *of* it. In this category fall some of the adaptive activities of psychotics, autists, pariahs, outcasts, vagrants and vagabonds. Drug addicts and alcoholics also fall within this category. Drug addicts, for example, divorce themselves from the success goals and must break the law to obtain and use their drugs. Retreatists may see themselves as double failures and regard their drug-related behaviour as an escape from reality. They get a "kick" from alcohol, marijuana, hard drugs, sexual experiences, heavy music or a combination of these. This subculture generates a new order of goals and criteria of achievement. They strive for status and deference within the group and reject the value system of society in general.
- 3. **Rebellion**: with this adaptation, members of the society reject both the cultural structure and the social structure and wish to replace them with new goals and means. The rebellious individual, for example, may commit to a political ideology with the intent to establish a new social order. Although Merton defined rebellion in terms of organised political action, such as terrorism, it could also take the form of extremely violent antisocial gang activity.

- 4. **Conformity:** with conformity, members of society accept the cultural goals and follow the prescribed means to achieve the goals, no matter how difficult it might be due to a lack of legitimate opportunities. Conformity makes social order possible, anomie is absent and deviance will not occur. Members of society work extremely hard to be successful and realise their aspirations and dreams.
- 5. **Ritualism:** these individuals abandon or reject the goals of success but accept the prescribed means or rules of the society. They do not deviate and generally find themselves in the lower-middle class of society. Parents put pressure on their children to abide by the moral mandates of society and to obey the law. Therefore, some of these youngsters go through the motions of attending classes and studying but they abandon the goals of success and achievement. By adapting to this way of living, these individuals try to avoid the frustrations of becoming a failure in life.

	Culture Goals	Institutionalized Means
I. Conformity	+	+
II. Innovation	+	_
III. Ritualism	_	+
IV. Retreatism	_	<u>122</u> 8
V. Rebellion <sup>12</sup>	±	±

Figure 19: Merton's Typology of Individual Adaptation (Source: McCoy & Pugh 2014)

Figure 19 above displays the five types of adaptation where (+) signifies "acceptance", (-) signifies "rejection" and (±) signifies "rejection of existing goals and substitution of new ones".

As shown in the table, conformists accept cultural goals and institutional means, innovators accept cultural goals but reject institutional means, ritualists reject cultural goals and accept institutional means, retreatists reject both cultural goals and institutional means and rebels create their own goals and means to achieve such goals.

## 3.3.3. Justification for the use of the Strain Theory

The researcher has chosen the Strain Theory because it explains the various factors that lead people to crime. It does not place emphasis on biological or psychological issues that result in crime but instead explains crime as a result of not being able to reach the same level of success as another individual in the community. Another reason for choosing this theory to explain online drug trafficking is because it takes the crucial modern day commodity of money into account, especially during the economic situation that Durban and South Africa as a whole are experiencing at this particular time, as a precursor to the commission of crime. The theory postulates that although crime may not necessarily be committed for financial gain, it certainly can occur as a result of stress and frustration. This theory was also chosen because it allows for the examination of crime from the criminal's point of view. It reveals the many reasons, apart from financial gain, that lead people to a state of desperation and, inevitably, crime.

### 3.3.4. Application of the Strain Theory to Online Drug Trafficking

The "South African Dream" promises all its citizens the access to equal opportunity to achieve success. However, the researcher is of the view that the distribution of these opportunities occurs unequally. The researcher is of the opinion that in Durban, individuals are sometimes compelled to commit crimes such as online drug trafficking as it may be their last option to achieve their goals. Furthermore, that while this may not mean that an individual is physically causing damage to attain goals, it does include crimes such as corruption and "back door deals" in order to achieve certain goals (Thompson & Morris 2016). For example, post office officials, who are most likely to be underpaid in Durban, allowing drugs to pass through in packages as "online deliveries" bought from online marketplaces for a small portion of money from the criminal. This form of desperation to make something of one's self, or rather to live a comfortable life, is what drives individuals to the easiness of drug trafficking via cyberspace.

Crime allows people to achieve their goals, and in many cases in Durban, where poverty is the driving force behind the crime, the goal is to take care of one's family (Schmalleger 2011). Illicit drug trafficking in Durban using cyberspace becomes a means for an individual to survive or to take care of their family.

With the high rate of unemployment and lack of job opportunities in Durban, people find online drug trafficking as an immediate solution to achieving financial success. Drug trafficking via cyberspace is an easy way of making a large sum of money with little effort. An example of drug trafficking for a living can be seen in the case of Abu Teif. Abu Teif is a 52-year-old citizen of Iraq. He sells drugs so that he can take care of his three children and handicapped wife. The strain of poverty has led him to "easy money". He has no choice but to sell drugs so that he can provide for his family (Robinson & Cussen 2017). While the researcher acknowledges that this is not a case in Durban, it is still closely linked to the enticing nature of drug trafficking and accessibility of easily gained money.

Crime allows individuals to reduce or escape from their strains, at least temporarily (Mubarak & Quinn 2017). When a person loses a loved one or is faced with some sort of emotional stress, online drug trafficking may become a way for them to escape the reality that they are facing. They forget their troubles and become so caught up in the world of cyberspace and drug trafficking that they start to forget their initial problems. They begin to feel better, not only about themselves but also about their life. Drug trafficking becomes a remedy to heal their wounds. They become lost in the world of drugs and online drug trafficking to the extent that they begin to forget the consequences and risks that lie behind it.

Strain theory may also be used to explain upper-class deviance in Durban, as mentioned by Merton in the discussion above (Fadaei-Tehrani & Green 2002). More often than not, corporate companies are pressurised to increase their profits. They fear losing investors and clients as well as their reputation as a successful company. With the current economic state in Durban, many companies are facing losses and the ability to remain profitable has become challenging. When making these profits legally become difficult, it leads the executives to turn to illegal ways of doing business – what Merton referred to as "illegitimate means" – in order to achieve their necessary targets and make the extra money to keep their business name and reputation (Eriksson & Broidy 2017). The legal corporate company becomes a distraction for the illegal undercover work that is being done. For example, a courier company experiencing a drop in profits may link up with online drug companies or buyers and offer certain packages to transport drugs. The company may hide their true dealings and will therefore use the face of the courier company to mask their involvement in the drug trade.

Crime helps an individual to escape from negative treatment (Downes, Rock & McLaughlin 2016). Strain theory may be used to correct negative emotions that accompany masculinity. For many men, proving manhood and masculinity can be very difficult. For these men to achieve the ideal standards of masculinity, trafficking drugs becomes a viable solution. Drug trafficking turns "little" men into "big" men, thus elevating their status in society. Drug dealers in Durban are usually perceived as dangerous, tough, powerful and strong and are feared by many in society. By trafficking drugs via cyberspace, individuals get a certain kind of respect shown to them for using such a platform to conduct their business; they are honoured, respected and most definitely feared by those around them. They receive an abundance of friendship, women and money as a bonus to becoming the masculine being that society expects of a man. By trafficking drugs online, it highlights Merton's argument that a westernised society leads to deviance and the need for unlimited success. The more advanced that South Africa, and Durban in particular becomes, the more individuals will utilise this to their advantage in order to relieve their stress or frustration and ultimately become successful.

Many people in South Africa, including Durban, just like in any society as mentioned by Merton, place too much emphasis on material success. Members of society in Durban place a great amount of emphasis on achieving industrial prosperity or, according to Merton, "unlimited success". To them success must be identified through means of material possessions such as fancy designer clothes, cars, mansions and an amount of respect depicted by the commuters. Many people strive for power, money and status by means of being involved in cyberspace drug trafficking with the intention to obtain these in order to show off their so-called "success". Frustration occurs, as noted by Merton, when individuals are expected to reach the same level of success without being granted the same or equal opportunity as the person next to them. For this reason, online drug trafficking becomes a solution to acquire financial success with half the amount of effort than a person who works an ordinary job to make that amount of money. The researcher is of the view that many people involved in online drug trafficking in Durban aimed to meet the societal standard of who and what they should be.

However, due to lack of opportunities, they experienced strain/ a high level of stress that led them to be involved in cyberspace drug trafficking to meet these societal standards, which measure people based on their accumulation of material possessions. Currently, Durban possesses a shortage of employment thus increasing the frustration of the individual.

Durban, just like any society, is divided into two structures according to Merton: the cultural structure and the social structure. The cultural structure deals with society's goals or dreams and what the members of the society value and strive for. Every individual in Durban wants to be successful and strives to have a life of comfort, but this is not always the case because not every individual will be able to live up to what society expects. While some people may be fine with this idea, others experience a lot of frustration. The temptation of making money is literally at the tip of the person's fingers, hence a choice is made to use cyberspace to traffic drugs. The social structure deals with the institutionalised means by which the abovementioned goals are supposed to be achieved. In Durban, not everyone is fortunate enough to get a college education or even high school education. With academic qualifications playing a big part in getting a good job, those who do not possess certain qualification are instantly at a disadvantage. This leaves the question: What job will they get? Unfortunately, this immediately puts the person in a state of frustration as they will likely never be able to reach a higher salary scale despite several hours of work. This alone is enough to push a person into wanting to make more money regardless of how. With the internet readily available, drug trafficking via cyberspace becomes the relief they have been seeking. Its effectiveness and low detection amongst law enforcement creates the perfect escape from a world of struggle into a world of luxury and comfort.

In a well-balanced society, these two structures are integrated so that all members know and accept the goals and have the appropriate constitutional means to achieve them. However, not all people in Durban will be uniformly successful in achieving the goals due to various economic, biological, sociological and psychological factors that might have an impact on them. Many people from Durban are competing for the limited resources available to them and are faced with challenges such as high unemployment, poverty, social class structures, differential opportunity structures, mental illness and low intelligence, which cause a disjunction between the goals and the means (Sealock 2017).

As a result they experience strain or stress when they cannot achieve their goals through the prescribed institutionalised means. This causes huge frustration within people and as a result they reject the prescribed means of laws, rules, values, norms and beliefs and follow an illegal route of cyberspace drug trafficking to attain their goals. They follow so-called "illegitimate" means to achieve their success goals.

In summary then, Merton suggested that the very nature of a society, such as that of Durban, generates a considerable amount of crime and deviance. The disjunction between the cultural and social structures places many citizens, but particularly the disadvantaged, in the position of desiring unreachable goals. Tremendous strains are engendered that move many people to find deviant ways of resolving this situation. The cultural emphasis on success also diminishes the power of institutional norms to regulate behaviour. As anomie becomes prevalent, people are free to pursue success goals with whatever means are available, whether legitimate or illegitimate. In this situation, many forms of crimes including online drug trafficking become possible and very likely.

### 3.4. Conclusion

This chapter provided an evaluation of two theories that are relevant to online drug trafficking. These theories are: the Classical School of Thought and the Strain Theory. The discussion centred on the development of the theory, the different approaches as to how one may view online drug trafficking and how it can be applied to online drug trafficking. It also provided different views for the reasons for such a crime as well as the motivation to commit a crime such as online drug trafficking.

#### References.

Agnew, R., 2015. Strain, economic status, and crime. *The Handbook of Criminological Theory*, pp.209-229.

Agnew, R., 2017. Revitalizing Merton: General Strain Theory. In *The origins of American criminology* (pp. 143-164). Routledge.

Allen, F.A., 2017. *Cesare de Beccaria*, retrieved from https://www.newworldencyclopedia.org/entry/cesare\_beccaria on 2<sup>nd</sup> August 2018.

Bernburg, J.G., 2017. Anomie. The Wiley-Blackwell Encyclopedia of Social Theory, pp.1-3.

Brent, J.J. & Kraska, P.B., 2015. Criminology's theoretical incarceration. *The Routledge Handbook of Qualitative Criminology*, p.22.

Chism, K.A. & Steinmetz, K.F., 2017. Technocrime and Strain Theory. In *Technocrime and Criminological Theory* (pp. 66-84). Routledge.

Cohen, S., 2017. Against criminology. Routledge.

Crossman, A., 2017, *Robert K Merton*, retrieved from https://www.thoughtco.com/robert-merton-3026497 on 8<sup>th</sup> August 2018.

Deflem, M., 2017. Anomie, Strain, and Opportunity Structure: Robert K. Merton's Paradigm of Deviant Behavior. *The Handbook of the History and Philosophy of Criminology*, pp.140-155.

Downes, D., Rock, P.E. & McLaughlin, E., 2016. *Understanding deviance: a guide to the sociology of crime and rule-breaking*. Oxford University Press.

Eriksson, L. & Broidy, L., 2017. Strain Theory and Crime. In *The Palgrave Handbook of Australian and New Zealand Criminology, Crime and Justice* (pp. 543-556). Palgrave Macmillan, Cham.

Fadaei-Tehrani, R. & Green, T.M., 2002. Crime and Society. *International Journal of Social Economics*, 29(10), pp.781-795.

Freilich, J.D., 2015. Beccaria and situational crime prevention. *Criminal Justice Review*, 40(2), pp.131-150.

Kraska, P.B., & Neuman, W.L., 2008. *Criminal Justice and Criminology Research Methods*, Pearson Education, USA.

Lilly, J.R., Cullen, F.T., & Ball, R.A., 2011. *Criminology Theory: Context and Consequences*, Sage Publications, USA.

McCoy, T. & Pugh, M., 2014. Strain Theory. *The Encyclopedia of Criminology and Criminal Justice*, pp.1-4.

Messner, S.F. & Rosenfeld, R., 2017. The Intellectual Origins of Institutional-Anomie Theory. In *The Origins of American Criminology* (pp. 127-142). Routledge.

Morrison, W., 2014. *Theoretical criminology from modernity to post-modernism*. Routledge-Cavendish.

Mubarak, A.R. & Quinn, S., 2017. General strain theory of Internet addiction and deviant behaviour in social networking sites (SNS). *Journal of Information, Communication and Ethics in Society*.

Nagin, D.S., Cullen, F.T. & Jonson, C.L., 2018. Classical Theory: The Emergence of Deterrence Theory in the Age of Enlightenment. In *Deterrence, Choice, and Crime, Volume* 23(pp. 13-38). Routledge.

Paternoster, R. & Fisher, D., 2017. The Foundation and Re-emergence of Classical Thought in Criminological Theory: A Brief Philosophical History. *The Handbook of the History and Philosophy of Criminology*, pp.173-188.

Robert, A., 2018. Stability and change in crime over the life course: A strain theory explanation. In *Developmental theories of crime and delinquency* (pp. 101-132). Routledge.

Roberts, M., 2016. *Surprising freedom for Demaryius Thomas's cocaine-convicted grandma*, retrieved from https://www.westword.com/news/surprising-freedom-for-demaryius-thomas-cocaine-convicted-grandma on 6<sup>th</sup> July 2018.

Robinson, S. & Cussen, T., 2017. *The Criminology and Criminal Justice Companion*. Macmillan International Higher Education.

Schmalleger, F., 2011. Criminology: A brief introduction. Boston: Prentice Hall.

Sealock, M.D., 2017. Strain Theories. *The Encyclopedia of Juvenile Delinquency and Justice*, pp.1-6.

Stinchcombe, A.L., 2017. Merton's theory of social structure. In *The idea of social structure* (pp. 11-33). Routledge.

Thompson, K.C. & Morris, R.J., 2016. Theories of Juvenile Delinquency. In *Juvenile Delinquency and Disability* (pp. 41-53). Springer, Cham.

Tierney, J., 1996. Criminology: Theory and Context, Prentice Hall, Great Britain.

Tierney, J., 2009. Key Perspectives in Criminology, Open University Press, New York.

Ugwudike, P., 2015. An introduction to critical criminology. Policy Press.

Van der Westhuizen, M., 2011. Criminological Theories. In *A South African Perspective on Fundamental Criminology* (pp. 126-139). Pearson Education, South Africa.

Vito, G.F. & Maahs, J.R., 2015. Criminology. Jones & Bartlett Publishers.

West, R., 2017. Classical Criminology. *The Wiley-Blackwell Encyclopedia of Social Theory*, pp.1-4.

Williams III, F.P. & McShane, M.D., 2010. *Criminology theory: Selected classic readings*. Routledge.

#### **CHAPTER 4: RESEARCH METHODS**

### 4.1. Introduction

The research methodology forms the blueprint or the groundwork for any research project (Maxfield & Babbie 2015). It provides the researcher with a logical and systematic outline that is aimed at ensuring the aims and objectives of the study are met. Research methodology allows the researcher to find a solution to a problem. With this in mind, this chapter provides an exposition of the research design, methodological procedures and techniques used in this research. It also gives the description of procedures used when collecting data from the respondents. In addition, it highlights the techniques used for the data analysis. The following discussion pertains to the nature of the study.

## 4.2. Nature of the study

The study was predominantly qualitative and therefore focused on semi-structured interviews of selected police officials from the cybercrime division of the South African Police Services. The reason for using the qualitative approach was that qualitative research is concerned with meanings and processes (Flick 2014). Researchers in this field study phenomena in their natural settings, attempting to make sense or understand the various meanings that individuals attach to them (Kraska & Neuman 2008). According to Bachman and Schutt (2008), qualitative research allows the researcher to borrow ideas from the individuals they study and place them within the context in which they occur. Qualitative researchers examine motifs, themes, distinctions, ideas, perceptions and opinions thus obtaining quality data as it naturally exists in the real world. Kraska and Neuman (2008) further assert that qualitative research involves the way in which people experience, understand, interpret and participate in the social and cultural world that they exist in. In addition, Mason (2017) suggests that great importance is placed on gathering data in real life situations or in the natural setting that they take place in. The context in which the research is conducted is as important as providing rich, detailed descriptions of the individuals in action in the real world.

The study was conducted using a qualitative approach as this method provides an in-depth understanding of research issues that hold the viewpoints of the sample (police officials from the cybercrime division of the South African Police Services) concerning the trafficking of drugs via cyberspace (Marshall & Rossman 2014).

The use of the qualitative research approach allows for a more in-depth understanding of certain factors that would otherwise be difficult to obtain in a quantitative survey. Baumgartner and Strong (1998) state that these include individual or subjective factors such as attitude, opinion, emotion, personality, interest, personal problems and mood, which are relatively complex to capture quantitatively. They are also difficult to be verified in an empirical study such as online drug trafficking Brannen (2017).

According to Bachman and Schutt (2008), qualitative research differs from quantitative research in that it:

- Focuses on meanings rather than quantifiable phenomena and includes images and processes;
- Is sensitive to context rather than seeking generalisations;
- Aims to gather rich descriptions of the world rather than measuring specific variables;
- Allows for an in-depth and detailed study without predetermined categories or directions;
- Includes the researcher as being part of the study
- Focuses on patterns and themes during the analysis process; and
- Focuses on the interactive process and the entailed meaning thereof.

The qualitative research approach provides a deep and rich understanding of the social processes (such as experiences and perceptions) that would not be obtainable from methods used in quantitative research (Baskarada 2014). This approach provides the researcher with an insight and understanding of the perceptions of the research participants i.e. the police officials from SAPS. This research approach is deemed appropriate for this study as it assisted the researcher to explore the perceptions of those involved in the study as well as the experiences and challenges faced with this type of cybercrime in Durban, South Africa. The qualitative approach allowed the researcher to explore the phenomenon of online drug trafficking in a manner whereby rich and detailed information was gathered to build a bigger picture of the issue of cybercrime, and online drug trafficking, in Durban.

### 4.3.1. Research design

The key purpose of this research was to explore the use of cyberspace to traffic drugs in Durban, South Africa.

With this in mind, a qualitative approach was chosen to assist the researcher to focus on the exploration of cyberspace to traffic drugs in the city, hence the study will make use of an exploratory research design. Sandberg and Copes (2012) assert that exploratory methods are a valuable way of finding out what is happening, to seek insight, to ask questions and to assess phenomena in a new light. This occurs when the researcher has an idea or has observed something and seeks to understand more about it. This is particularly useful when the researcher wishes to clarify the understanding of the problem (Saldana 2015). Thus, the researcher opted for this research design as the main aim is to explore the use of cyberspace to traffic drugs as well as to explore the experiences of cybercrime officials in dealing with such a crime. The following discussion pertains to the research design of the study.

# 4.3.2. Exploratory research design

According to Kraska and Neuman (2008), exploratory research design is used when a new area or topic is being investigated or when little is known about an area of interest. The exploratory research design examines the relevant factors of the phenomenon in detail so as to arrive at an appropriate description of the existing problem (Malterud, Siersma & Guassora 2016). This research design is used to investigate the nature of the phenomenon in question as well as its surrounding factors such as the beneficiaries of online drug trafficking. In this study, the researcher explored the use of cyberspace as a tool to traffic drugs in Durban. An exploratory research design was used as this research design studies phenomena, such as online drug trafficking, which has not otherwise been intensively studied in the Durban area. It aids the researcher in exploring the area of research and thus discovering new meanings and understandings related to the study (Bachmann & Schutt 2008).

The research design of this study was exploratory because this study aimed to investigate the existence of the phenomenon (the use of cyberspace as a tool to traffic drugs in Durban, South Africa); the beneficiaries of this particular cybercrime; the types of drugs that are being sold online as well as the laws and policies surrounding the use of cyberspace to traffic drugs in the city. According to Baxter and Jack (2008), the results from an exploratory study may not necessarily be generalisable to a larger population but they do provide a better understanding of the sample that is being examined. The researcher deemed the exploratory research design suitable for this study as the primary aim is to gain a better understanding of how cyberspace is used as a tool to traffic drugs in Durban, South Africa.

## 4.4. Population of the study

Kraska and Neuman (2008) state that the population of a study refers to an abstract idea of a large group of many cases (which could be a person, group or organisation) from which the researcher draws a sample. The population of this study included officers from the cybercrime division of the South Africa Police Services. The officers from the cybercrime division were central to the topic of online drug trafficking and were the only population that the researcher drew a sample from. Due to the cybercrime unit being relatively smaller than the researcher expected, characteristics such as age, race and gender were overlooked to ensure that the chosen number of respondents for this study could be reached.

### 4.5. Area of the study

The study was located in Pretoria, a city in the northern part of Gauteng Province in South Africa. The researcher selected Pretoria as the study area as this was where the head office of the cybercrime officers was situated. At the time of the study, Durban did not have its own cybercrime unit that the researcher could access. For this reason, the researcher selected to go to where the cybercrime officers, who are nationwide cybercrime officers and therefore aware of online drug trafficking in Durban, were situated.

Pretoria was founded in 1855 by Marthinus Pretorius. The city is known as "Jacaranda City" because of the thousands of jacaranda trees that are found in that area (Travel Ground 2018). When Pretoria was first founded, it consisted of only three hundred people. Today, it is home to almost 750,000 people. The city of Pretoria has several universities, government building and monumental structures. An example is the Voortrekker Monument which honours the nineteenth-century Afrikaans settlers from the Cape Colony. Pretoria is roughly 69, kilometres from Johannesburg. The coordinates of Pretoria are -25°43'52.8240" S and 28°6.1320"E.



(Source: Travel Ground 2018)

Figure 20: Map of Pretoria

The picture above is a map of Pretoria and is the location that the researcher selected for the study. The map shows that Pretoria is part of the Gauteng Province. The map also shows that Pretoria is a fair distance away from Johannesburg.

# 4.6. Sampling

Sampling is a very complex issue in qualitative research as there are many variations of qualitative sampling and also much confusion and overlapping of the different types that are available for use (Coyne 1997). According to Strydom and Venter (2002), sampling is defined as a "process of selecting units from a population of interest so that by studying the sample the results may be fairly generalised back to the population from which they were chosen". Frankel and Devers (2000) suggest that the sample may assist the researcher in saving a vast amount of time and money. The greater the population, the more difficult it is to collect and analyse the data (Tetnowski 2015).

Tetnowski (2015) further states that it is more feasible and sensible to use a sample from the population so as to ensure that the researcher can make better use of the tools and resources available to them for the purpose of the study.

The sample size chosen for this study comprised ten respondents in total. The reason that the researcher selected a small sample was due to the sensitivity and elusive nature of the study (Dworkin 2012). The sample population of this study was the South African Police Services (SAPS) whilst the sample entailed police officials from the cybercrime unit of the SAPS. These respondents were chosen as they are central to the study and formed a major category of individuals who are involved in the research topic area, that being cybercrime. Whilst ten respondents were initially chosen for this study, upon arrival in the field to conduct data collection, the researcher only managed to attain eight respondents as that was the only available amount of officers in the unit at the time of this study. However, this did not affect the study as the eight respondents who were interviewed provided as much information that they could and to the best of their knowledge and experience.

The researcher chose the sample with the sole characteristic that each respondent had to be a cybercrime officer and have experience with cybercrimes. Characteristics such as gender, age and race were later included but were not greatly emphasised because the researcher had a small sample population to begin with. The cybercrime unit is relatively small and if the researcher selected the sample with certain characteristics (such as age) the sample would be even smaller and would restrict data collection. The researcher therefore selected a sample of officers who had first-hand experience with cybercrime and online drug trafficking and then other characteristics such as gender and age followed. The sample for this study consisted of only male officers from all races and age groups.

The researcher employed a non-probability sampling technique to sample the ten respondents for the study. The study utilised purposive sampling, also known as judgment or subjective sampling. Purposive sampling is a sampling technique in which the researcher relies on his/her own judgment when choosing members from a population to participate in the study (Dudovskiy 2017).

Researchers often tend to believe that a representative sample can be obtained using sound judgment, thus saving time and money. The two key elements to note about the purposive sampling technique is that it is one of the most cost effective and time effective sampling methods that is available to researchers. Secondly, it may be the only appropriate method that is available if there are a limited number of participants who can serve as primary data sources, as was the case in this study, especially when considering the nature of the study and the objectives pertaining to online drug trafficking (Dudovskiy 2017).

According to Neuman (2000), there are two main situations in which the researcher would consider using purposive or judgment sampling: one is when the researcher uses it to select cases that are specifically informative to the study, and the other is when the information provided by the respondent is relevant to the study. The researcher chose purposive sampling because it was cost effective and also time efficient. The purposive sampling technique saved the researcher a lot of time because it allowed the researcher to choose respondents who would provide the most information surrounding drug trafficking via cyberspace.

The sampling technique chosen for this study was used by first determining the type of information that was needed to answer the research questions of the study. This included information surrounding existing and new laws and policies relating to cybercrime and its occurrence, the reason(s) for drug traffickers to turn to the internet as a tool to conduct their work, the beneficiaries of online drug trafficking as well as which type of drugs are being sold online. The researcher then defined the qualities that the respondents should have such as age, gender, number of years of experience as well as their number of encounters with cybercrime (their experience with cybercrime and online drug trafficking was the main characteristic that the researcher searched for). Thereafter, the respondents were selected based on the above-mentioned qualities that were chosen by the researcher. Whilst sampling the respondents, the researcher clearly indicated that participation is voluntary and that there would be no negative consequences should they decide to withdraw from the study. The researcher made certain that the respondents were aware that their identity would remain confidential. The researcher also asked the respondents for informed consent prior to proceeding with the data collection.

## 4.7. Data collection

For the purpose of this study, the researcher made use of primary and secondary data (Flick 2018). The primary data collection for this study took place in the form of semi-structured interviews with cybercrime officers. The interviews consisted of questions that were predetermined using the literature review data. The interviews were one-on-one and varied in length. Probing questions were used by the researcher to gather further insights from the respondent. The respondents were asked for informed consent prior to the commencement of the interview. They were ensured that their confidentiality would be maintained and that they would remain anonymous. The researcher ensured that the respondents were protected by ensuring that the questions in the interview did not victimise or embarrass the respondent. Data collection also took place in the form of an extensive review of existing literature. The study made use of secondary sources of data such as articles, studies in the field of online drug trafficking, newspaper articles and online journals.

#### 4.8. Research instrument

Research instruments are measurement tools, such as questionnaires and interviews, which are designed to obtain data on a topic that is of interest to the researcher (Brinkmann 2014). The research instrument that was used in this study was an interview schedule, which was employed to collect data from the respondents. The researcher chose individual semi-structured interviews so as to ensure that the respondents were at ease and were able to open up about their individual experiences and perceptions of cybercrime and online drug trafficking. Due to this approach, the respondents and the researcher were able to form an open and comfortable relationship which essentially aided in the data collection process of the study.

According to Lankshear and Knobel (2004), "interviews are planned, prearranged interactions between two or more individuals, where one is responsible for asking questions pertaining to a particular theme or topic of formal interest and the other(s) is responsible for responding to the questions". Interviews were conducted with the eight participants, all of whom were male, towards the end of June 2018.

Semi-structured interviews were used to conduct the data collection process on the use of cyberspace to traffic drugs in Durban, South Africa. The researcher employed semi-structured interviews during this study so that the information obtained from the respondents would be in-depth and richly descriptive (Haberfellner & Fenzl 2017). This type of interview was chosen to enable the researcher to gather rich information from the respondents without making them feel intimidated by the formal procedures otherwise associated with a structured interview.

Another intended outcome of conducting semi-structured interviews was to attempt to gather and gain an understanding of how police officials in the cybercrime division experience cybercrime and how that shapes their perception of it. The researcher aimed to understand how police officials interpret online drug trafficking as well as their individual knowledge and understanding of the process of this particular cybercrime. The semi-structured interviews used to collect data for this study were conducted solely by the researcher.

The interview was written and conducted in English. The time of participation for the interview was negotiated between the participant, the commissioner of the cybercrime division and the researcher to ensure that the interview was scheduled at a time of convenience for the officers. For this reason, the interviews were mainly conducted at a time whereby the officers were free and available to be interviewed. The venue was negotiated with each participant and offices within the SAPS cybercrime division were mainly used as it is a setting that the officers are familiar with and most likely feel comfortable in. The interviews were initially calculated to be 30–45 minutes long but this varied amongst each respondent in the field during the process of data collection.

# 4.9. Administration of the interview schedule

The researcher communicated telephonically and made arrangements with the South African Police Service towards the end of May 2018. Data collection took place from the 18<sup>th</sup> to the 21<sup>st</sup> of June in 2018. The reason for the delay was because the researcher had to travel to Pretoria to conduct research as that is where the head office for cybercrime is based. Accommodation and transport arrangements posed as a delay for the researcher.

The researcher arrived at the cybercrime unit on Monday the 18<sup>th</sup> of June 2018 and was met with an officer who introduced himself and then shown the boardroom that was made available for the use of the interviews.

Six of the interviews were conducted in a quiet boardroom of the cybercrime building and two at a coffee shop nearby (the officers did not have access to the building as special clearance is needed to access it, which they did not possess at the time, hence other arrangements had to be made to ensure the continuation of data collection). Before commencing with the interview, the researcher explained the various ethical considerations to the respondent. The respondent was made aware that participation is voluntary and that withdrawal is permitted at any stage of the interview without any negative consequences. The researcher explained that the respondent will remain as anonymous and that any information provided will be confidential. The respondent was presented with an information sheet, consent to participate in the research sheet and an informed consent form which each respondent signed. Thereafter the researcher provided a brief overview of the study as well as the researcher's particulars (such as name and which university the researcher studies at). The researcher began each interview after the respondent signed the informed consent and provided consent to participate. The interview typically began with a slight hesitancy from the respondent, but through the use of rapport and probing questions the respondents were able to feel comfortable and open up to the researcher. This played a crucial role as rich and descriptive data was received through creating an environment whereby the respondent felt safe and relaxed to speak freely.

# 4.10. Data analysis

The data collected was analysed manually using thematic content analysis (Patton 2005). The researcher will begin by becoming familiar and immersed with the data. Transcripts or recordings will be reviewed several times. The researcher will then proceed to generating or identifying initial codes or themes that appear interesting and meaningful to online drug trafficking. Thereafter, the themes will be named and defined. Lastly, the researcher will transform the analysis into an interpretable report. This final report will go further than just a description of the themes. It will portray an analysis that will be supported with empirical evidence that addresses the research question.

## 4.11. Ethical consideration

According to Prinsloo and Rowe (2015), it is imperative that a researcher follows ethical standards and procedures strictly, especially when the study involves people. Before collecting any data from the respondents, the researcher explained the study and its objectives. After fully disclosing the purpose of the study, the researcher obtained informed consent in writing. The respondents were then asked for permission to be recorded during the interview to aid in transcription for further analysis (Gower 2017). The researcher explained to the respondents that they would be protected with anonymity and confidentiality. Abdool (2017) states that anonymity refers to the ethical protection that the researcher provides the respondent with. Anonymity is when the respondent remains nameless and their identity is protected from being disclosed. The researcher ensured that anonymity was achieved by not disclosing the participant's identity after information was gathered. Confidentiality means that information has names attached to it but the researcher keeps this secret. It was also stated to the respondents that they may withdraw from the interview at any stage without any negative consequences.

# 4.12. Limitations of the study

There were certain limitations of the study which the researcher notes. The biggest limitation was waiting for permission from the SAPS and for ethical clearance. This took a great deal of time and delayed the researcher in data collection.

Another limitation was the lack of national data on drug trafficking via cyberspace. There was very little information surrounding online drug trafficking and this made it difficult for the researcher to paint an elaborate picture of the problem in Durban, South Africa.

A noteworthy limitation is that Durban does not have its own cybercrime unit. This is limiting because conducting studies based on cybercrime become difficult as officers from this unit are rare in Durban.

## 4.13. Solutions to the limitations of the study

Despite having to wait several months to obtain the gatekeeper letter and full ethical clearance, the researcher overcame this hurdle by remaining patient. Instead of stressing, the researcher waited patiently and focused on building the other chapters of the study.

The researcher overcame the limitation of having limited national drug data available by searching various sources until reliable information was found. The researcher did not give up when empty searches came up but instead used different sources (internet and books) to obtain data on online drug trafficking. The researcher overcame the limitation of Durban not having its own cybercrime unit by travelling to the next available cybercrime unit. The researcher made arrangements and travelled to Pretoria to meet with the head office of the cybercrime unit. To the researcher's surprise, these officers were nationwide officers who were aware of online drug trafficking in Durban. Further arrangements were made after discovering this and data collection was made possible.

## 4.14. Conclusion

This chapter provided a detailed and elaborate layout of the research methods of this study. It delivered a discussion of the procedures of the research methods that the researcher employed to conduct the study, particularly in the data collection and analysis stages. This chapter discussed important issues such as the research design, the sample, the sampling technique, data collection, data analysis and the limitations of the study. In the chapter to follow, the researcher will be analysing and interpreting the data that was collected.

## References

Abdool, R., 2017. Covert medication: legal, professional, and ethical considerations. *Journal of Law, Medicine & Ethics*, 45(2), pp.168-170.

Bachman, R., & Schutt, R.K., 2008. *The Fundamentals of Research in Criminology and Criminal Justice*, Sage publications, USA.

Baskarada, S., 2014. Qualitative case study guidelines.

Baumgartner, T.A., & Strong, C.H., 1998. *Conducting and Reading Research in Health and Human Performance*, Lawrence Erlbaum Inc., USA.

Baxter, P. & Jack, S., 2008. Qualitative case study methodology: Study design and implementation for novice researchers. *The qualitative report*, 13(4), pp.544-559.

Brannen, J., 2017. Combining qualitative and quantitative approaches: an overview. In *Mixing methods: Qualitative and quantitative research* (pp. 3-37). Routledge.

Brinkmann, S., 2014. *Interviews*, in Encyclopedia of Critical Psychology, Springer, New York.

Coyne, I., 1997, Sampling in Qualitative Research: Purposeful and theoretical sampling: merging or clear boundaries?, retrieved from http://www.onlinelibrary.wiley.com/doi/10.1046/j.1365-2648.1997.t01-25-00999.x/full on 1st September 2017.

Dudovskiy, J., 2017. *Purposive Sampling*, retrieved from https://www.research-methodology.net/sampling-in-primary-data-collection/purposive-sampling/ on 6<sup>th</sup> September 2017.

Dworkin, S.L., 2012. Sample size policy for qualitative studies using in-depth interviews, *Archives of Sexual Behaviour 41*(6), pp 1319-1320.

Flick, U., 2014. An introduction to qualitative research. Sage.

Flick, U., 2018. Designing qualitative research. Sage.

Frankel, R.M. & Devers, K.J., 2000. Study design in qualitative research-1: Developing questions and assessing resource needs. *Education for health*, *13*(2), p.251.

Gower, K.K., 2017. Legal and ethical considerations for public relations. Waveland Press.

Haberfellner, C. & Fenzl, T., 2017. The utility value of research evidence for educational practice from the perspective of preservice student teachers in Austria- A qualitative exploratory study. *Journal for educational research online*, 9(2), pp.69-87.

Kraska, P.B., & Neuman, W.L., 2008. *Criminal Justice and Criminology Research Methods*, Pearson Education, USA.

Lankshear, C., & Knobel, M., 2004. *A Handbook for Teacher Research*, Open University Press, New York.

Malterud, K., Siersma, V.D. & Guassora, A.D., 2016. Sample size in qualitative interview studies: guided by information power. *Qualitative health research*, 26(13), pp.1753-1760.

Marshall, C. & Rossman, G.B., 2014. Designing qualitative research. Sage publications.

Mason, J., 2017. Qualitative researching. Sage.

Maxfield, M.G., & Babbie, E.R., 2015. Research Methods for Criminal Justice and Criminology, Cengage Learning, Stamford, USA.

Neuman, W.L., 2000. Social Research Methods: Quantitative and Qualitative approaches, Allyn & Bacon, Needham Heights.

Patton, M.Q., 2005. Qualitative research. Encyclopedia of statistics in behavioral science.

Prinsloo, P. & Rowe, M., 2015. Ethical considerations in using student data in an era of 'big data'.

Saldana, J., 2015. The coding manual for qualitative researchers. Sage.

Sandberg, S. & Copes, H., 2013. 'Speaking With Ethnographers: The Challenges of Researching Drug Dealers and Offenders', *Journal of Drug Issues*, 43(2), pp. 176–197.

Strydom, H., & Venter, L., 2002. Sampling and Sampling methods, Van Schaik, Pretoria.

Tetnowski, J., 2015. Qualitative case study research design. *Perspectives on Fluency and Fluency Disorders*, 25(1), pp.39-45.

Travel Ground, 2018. *Pretoria*, retrieved from https://www.travelground.com/accommodation-in/pretoria/about on 18<sup>th</sup> September 2018.

## **CHAPTER 5: DATA ANALYSIS AND INTERPRETATION**

## 5.1. Introduction

Data collection and data analysis form a crucial part of research in Social Science. According to St. Pierre and Jackson (2014), data collection refers to the way in which the information is to be elicited. The authors further state that the aim of data analysis is to translate the data that has been elicited into an answer to the original research problem. On the other hand, Peck, Olsen and Devour (2011) state that data collection and analysis both consists of a method that allows the researcher to begin the process by deciding which data are to be collected and then to decide which of the results should be known in regard to the data collected. Peck et al (2011) argue that the following steps have to be followed in order for data collection and analysis to be effective:

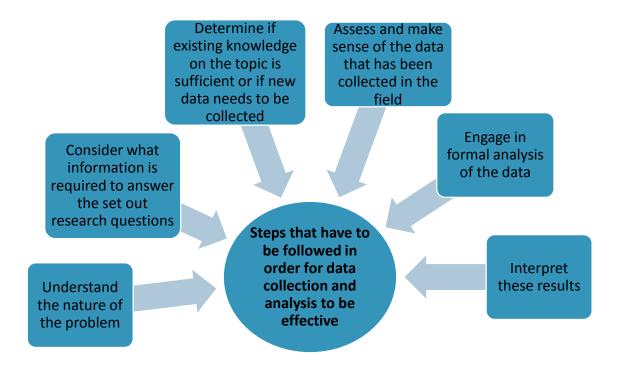


Figure 21: Steps for effective data collection and analysis

The diagram above depicts the steps that have to be followed in order for data collection and analysis to be effective.

In this chapter, the researcher wishes to focus on interpreting the data that was collected from the participants during the course of the study. The researcher will make use of verbatim quotes (in italics) to express the feelings, perceptions and experiences of the participants on the phenomenon under study. A consideration to note in this regard is that there will be no names or personal information attached to the verbatim quotes to ensure anonymity, confidentiality and for other reasons associated with ethical considerations. In addition to this, any grammatical errors within the verbatim quotes will not be altered to ensure that the quotes are used as is from the interviews and to maintain the authenticity of the data. The following section provides a brief overview of the methods and materials used during the data collection process.

# 5.2. Brief overview of methods and materials

The fieldwork research component of the study was comprised of semi-structured interviews. The interviews were initially to be conducted with ten participants but upon reaching the field, only eight participants were available (as mentioned in the Research Methods chapter). This is due to the fact that the cybercrime division is still in its early stages of development, especially in terms of specialising in a cybercrime such as drug trafficking, which is a relatively new area of interest in South Africa and Durban in particular. With that being said, the total number of participants who were expected to be interviewed was more than what the unit comprised of at the time of data collection for this study.

The data collection took place at the SAPS head office in Pretoria because, upon contacting the SAPS, they informed the researcher that this was where the office of the cybercrime division officers was situated. The police officer that the researcher conversed with explained to the researcher that they could only avail officers from the cybercrime division in Pretoria as Durban did not have an established cybercrime unit at the time of this study. This office was the Pretoria head office and cybercrime cases and news would also be dealt with by the officers in Pretoria. Despite not being physically located in Durban, the officers had full knowledge of cybercrime in Durban. The cybercrime officers who were based in Pretoria are aware of cybercrime nationwide. Hence, for the purpose of this study and for the researcher to effectively gather rich information, the researcher had to travel to Pretoria to conduct field work.

More specifically, the researcher had to travel to an area just outside of Pretoria; however, this location cannot be disclosed so as to protect the location and identity of the officers working from that office. The first six interviews were conducted in the boardroom within this building and the last two were conducted in a coffee shop nearby. The coffee shop was chosen for these two interviews as the two interviewees did not have permits to enter the building as they worked in a different office from where the interviews took place the day before, and was also the closest coffee shop to the officers' head office. The researcher was still able to proceed despite having to go to a coffee shop as a quiet area was allocated to the researcher and interviewees, while noise levels were minimal as the coffee shop was not busy at the time of the interviews. All interviews varied in length.

The period of data collection occurred between the 18<sup>th</sup> and 21<sup>st</sup> of June 2018. The researcher conducted both scheduled and unscheduled interviews with the scheduled interviews producing the greatest insight and information on the topic of online drug trafficking via cyberspace. Before the researcher embarkes and provides an analysis and interpretation of the data, it imperative to first discuss the choice of data analysis method used to analyse the data for this study. The discussion is provided below.

# **5.3.** Data analysis

For the purpose of this study, the researcher has chosen to use thematic content analysis to analyse the data collected from the participants. According to Nowell et al (2017), "thematic analysis provides a highly flexible approach whilst providing a rich and detailed yet complex account of data". The authors' further state that thematic analysis is a useful method for examining the perspectives of different research respondents, to highlight similarities and differences and to generate unexpected insight and knowledge (Nowell et al 2017). All the interviews conducted in the field were transcribed by the researcher. In adherence with the ethics policy of the university, names or any identifier of the participants will not be mentioned anywhere in the study. The first interview respondent will be referred to as "respondent one", the second interviewed as "respondent two" etc. when using verbatim quotes. The section that follows addresses the themes that the researcher has identified.

## **5.4.** Themes identified

The researcher has identified various key themes throughout the data. The themes are as follows:

- 1. Cyberspace seen as the internet or any electronic means of communication.
- 2. Cyberspace as a platform to communicate (this is how it is used as a tool).
- 3. Cyberspace as a tool to traffic drugs.
- 4. Anonymity and ease of access increases online drug trafficking.
- 5. Lack of awareness of online drug trafficking in Durban and South Africa as a whole.
- 6. Insufficient South African legislature and policies to combat online drug trafficking.
- 7. Money is the motivating factor for this crime (financial reward).
- 8. Harsher punishment as a preventative method for online drug trafficking.
- 9. The supplier and the distributor as the beneficiaries of drug trafficking via cyberspace.
- 10. Anonymity offers protection to the user but indirectly causes harm.
- 11. Cannabis, cocaine and ecstasy are the most common drugs available online.
- 12. Inevitable causes of drug trafficking via cyberspace.
- 13. Police incompetency to deal with this form of cybercrime.
- 14. Electronic Crime and Transaction Act (ECTA).

The above identified themes will be expatiated in detail in the following discussion. The first theme to be discussed is the understanding of the term cyberspace.

# 5.5. The understanding of the term "cyberspace"

The respondent were asked about their understanding of the term cyberspace.

In this study, the understanding of the term cyberspace by the respondents was assessed in terms of what they thought it was and how they understood the term. Most of the respondents had a clear understanding of the term. In their responses, they all associated the term "electronic media" with the term "cyberspace". They believe that cyberspace is a means of communication platform via electronic media. All the respondents share the same understanding in this regard.

# Respondent two stated that:

"I can say that cyberspace is anything which is committed through electronic media that can be stored in apps of electronic media which is accessed via electronic media means like internet and so on."

Cyberspace is not only accessible via a computer but also via any other electronic device that permits such access. Respondent one indicated in his response that:

"Well, for me, cyberspace is an environment where technology is used to either communicate or share information using electronic mediums like your computer, your cellphones, your communication devices."

According to respondent three, there is a dual existence to the term. This respondent acknowledged the various levels of the internet as identified in the literature of Chapter 2. The respondent stated that:

"My understanding of the word cyberspace is the internet. The visual one that we know and the one we are told about such as the dark web and the deep web. It's the web."

Cyberspace forms a crucial digital environment for criminals and it is at the core of the crime that this study is focused on. In addition, respondent five provided a simple yet all-round definition of what he thought the term signified. In his response, he stated that:

"Cyberspace, as I understand it, is the digital environment whereby devices are networked and communication platforms at various levels and complexity are initiated, facilitated and maintained".

While several respondents provided descriptive understanding of the term, respondent seven stated that:

"Cyberspace is where they are using the internet and the computer. It's the web."

From the above analysis, the respondents have provided their own understanding of the term cyberspace. They share the sentiment that cyberspace is inclusive of the internet. They have also acknowledged the magnitude of the internet in terms of it going beyond that of simply being the internet alone. This then leads to the question of how cyberspace is used as a tool to traffic drugs in Durban, South Africa.

# 5.6. Cyberspace as a tool to traffic drugs in Durban, South Africa

With the use of secondary sources of data, the researcher discovered that cyberspace is used as a tool to traffic drugs in Durban by allowing certain sites to exist in an area of the web that is only accessed for the means of illegal activities such as online drug trafficking (Sedgwick 2018). The existence of the dark web and dark web marketplaces are the very reason that cyberspace is used as a tool to traffic drugs in Durban. The respondents were asked to provide an opinion of how they think cyberspace may be used as a tool to traffic drugs in Durban. The analysis of the data revealed various other reasons how cyberspace may be used as a tool in this regard. One reason that resonated amongst all the respondents was that cyberspace is used as a communication platform for criminals. Respondent two indicated in his response that:

"Cyberspace, I think is a tool because communication is not only voice related, it's also done through electronic media and electronic media is also a tool which translates information which is then used to commit that particular crime."

# Respondent 2 further stated:

"It may not be committed in terms of tangible things but in terms of communication because every crime starts with communication. Communication is done through the cyberspace and after it has been agreed upon the manner or method of deliverance and so on and that's where we can say the crime is committed there. So delivery and also instructions on the crime are also done there. So the place and the person are only given instructions by means of the cyber communication."

Respondent one indicated that social media, which has to be accessed via the internet, is how cyberspace may be used as a tool. He continued by stating:

"Uhm, social media can be used. We've got the deep web as well where criminals may use that platform to sell their trade or to sell their whatever narcotics that they are having." Above, the respondent mentioned that the criminals use the deep web as their platform to sell their drugs. This is in accordance with the findings by Peek (2015), which showed that various layers of the internet (i.e. the deep web and dark web) allow for crimes, like that of drug trafficking, to take place via cyberspace. This is further highlighted by respondent five who answered by saying:

"In this instance, cyberspace is a communication medium. On the surface web, various coded advertisements may be placed, transactions arranged etc. Via the dark and deep web, more explicit advertising, communication and transactions and logistics may be viewed."

It was also highlighted by one of the respondents that cyberspace is used as a tool to traffic drugs in Durban in that it aids in finding customers to sell drugs to as well as suppliers of drugs. Respondent six mentioned:

"It will help finding suppliers and customers, internet will aid in finding cultivators in an anonymous manner."

In bringing in new light to this question, respondent seven stated that while he was not fully aware of the workings of cyberspace, he shared his view of how he felt cyberspace is a tool to traffic drugs. He stated:

"I think maybe to advertise."

While existing literature failed to mention this, it definitely brought about a different area that is important to note. The internet may consist of coded words advertising drugs which the general public may not be aware of. This response, while standing out from the other responses, identified that the internet can be more harmful than ever imagined, especially now that kids are being more exposed to it and the technology it possesses.

From the above analysis, it is clear that while several respondents saw cyberspace as an aid or facilitator of communication, they also acknowledged that there are other ways that cause cyberspace to be used as a tool to traffic drugs in Durban (this includes advertising and finding suppliers and distributors). This then take us to the analysis of how the use of cyberspace increases drug trafficking via cyberspace in Durban.

# 5.7. Cyberspace as a means to increase drug trafficking in Durban

According to Drug Rehab (2018), online drug trafficking has been on the increase because the sites on the dark web marketplaces allow people to buy drugs anonymously and to make use of Bitcoins, which proves challenging to trace. The authors go further to state that online drug trafficking is on the increase because it is safer than face-to-face purchasing of drugs where individuals may be subject to being robbed or assaulted. One reason that may be self-deductive is that there is an overall increase in the use of drugs hence the increase in online drug sales. For the purpose of this study, respondents were questioned as to how cyberspace increases the trafficking of drugs. Their responses confirmed several of the reasons for this increase in online drug trafficking, as mentioned above.

# Respondent one stated that:

"Well, tracing them may prove as a challenge because you can assume any identity on the internet without being validated so it is a challenge and this is what causes the crime to increase."

# Respondent two had this to say:

"Cyberspace is borderless so irrespective if you have ever met or never met but as long as you can Google and go into dark webs to communicate or check sites or anything you want to utilise to communicate with a specific person, that's where you can do the networking and through further communication, you can determine which person to do certain business with and that's where the internet can be utilised to increase crimes like drug trafficking."

# Respondent four mentioned in his response that:

"The ease of access, the person no longer has to travel from block A to B or use their own transport. The ease of use and the ease of access. And it's also cheaper and quicker. You can contact a person in Cape Town, without driving there and looking for him."

## Respondent five stated that:

"To the individuals/organisations competent in digital anti-tracking techniques, cyberspace lends an aspect of anonymity.

This 'cloaked' environment makes the advertising of, and communication regarding transactions and logistics related to illicit activities much easier than previously-employed methodology."

From the above responses, it can be established that due to anonymity, tracing on the internet can prove to be extremely difficult thus causing the crime to increase. Important to note is that Durban currently lacks the proper technological tool to trace individual's digital footprint. With online tracking making it difficult to track down cybercriminals, it inevitably opens a way for these criminals to make use of such a platform to commit their crime, as mentioned by the respondents above. Respondent four also highlighted that there is an "ease of access", which can be attributed to the fact that the internet is at our fingertips almost, if not all the time. It was also identified that cyberspace increases drug trafficking because it is cheaper and quicker, according to respondent four. This can be confirmed through the work of Lusher (2016), who stated that individuals make use of the internet to traffic drugs because it is a much more efficient means of getting drugs in terms of logistics and at a slightly reduced price. Lusher (2016) goes further to state that an order is placed and, a few days later, the drugs are received. Respondent five further confirmed that anonymity plays a major role in the increase of online drug trafficking in Durban.

His response (respondent five) identified and confirmed the various aspects of the trade, such as advertising, that anonymity makes way for. From the analysis of the responses above, it is clear that there is no single reason why cyberspace increases drug trafficking, but rather that there are several contributors to the increase of online drug trafficking in Durban (including the ease of access to the internet, difficulty in tracing, cheaper and quicker service and the borderless characteristic of cyberspace). The following discussion will be based on the theme of the lack of awareness of drug trafficking via cyberspace in Durban.

# 5.8. The lack of awareness of drug trafficking via cyberspace in Durban

Despite South Africa being largely a third world country, it has always possessed some of the best laws especially when it comes to the crime of drug trafficking (Monyakane 2016). With the Cybercrime and Cybersecurity Bill being presented in parliament in 2017, the researcher questioned respondents on what they thought this meant in terms of South Africa's knowledge about the occurrence of cybercrime and in particular online drug trafficking.

According to the responses received from the interviews conducted, many of the respondents outlined that there is an overall lack of awareness of cybercrime and especially that of online drug trafficking in Durban. It was also outlined that while there may be a current hype around the term "cybercrime", many people are still not aware of the extent to which the internet can be used to commit such crimes (such as online drug trafficking). They also stipulated that while law enforcement is aware of online drug trafficking, there is little action being taken to curb it (such as making the public more aware of online drug trafficking using awareness drives or speaking about it on news channels). All the respondents shared the same sentiment on this matter and the researcher selected three verbatim to express these sentiments. They responded as follows:

"I think, South Africa with the knowledge or maybe I should say the community or state workers, they know this word 'cybercrime' but they don't have an idea how does this thing happen because of lack of awareness. But to those who have already been the victims to that, they already know that this crime and happen like this and so on. Also the law enforcement, they only know their way and have never been involved or assisted or either opening a case or advisory in the form of awareness to the community and so on. South Africa is still lacking a lot of awareness when it comes to cybercrime." (Respondent two)

"That there is a rough awareness of the threat. Much hype surrounds the buzzword 'Cyber' but not much is practically done to adequately prepare for and combat cybercrime. There is lots of talk, but no action." (Respondent five)

"Not a lot of people know about cybercrime. They know about the internet but the cybercrime stuff, not a lot of them know about what's going on and what it is." (Respondent seven)

Respondent six went further to include and make mention of the Electronic Crime and Transaction Act (ECTA). This respondent felt that despite an electronic crimes act existing, it is still not enough to fully cover the occurrence of online drug trafficking. According to respondent six:

"It means that they are not so concerned about this crime. Neither are they making the public aware of it. The ECTA is also not comprehensive enough, it only covers a paragraph on cybercrime."

From the analysis provided above, it can be noted that Durban, and South Africa as a country on its own, is not entirely taking the issue of online drug trafficking as serious as it should. Overall, there is a lack of awareness and this is clearly evident through the responses provided by the respondents. Whilst there is an existing electronic crime and transactions act, it is not publicised enough to make people aware of online drug trafficking in Durban. Therefore, Durban needs to develop more awareness of this crime to ensure that people have the necessary information to protect themselves and those around them from being a victim of cybercrime. The following discussion pertains to the theme of money as a motivating factor for online drug trafficking in Durban.

# 5.9. Reasons for online drug trafficking in Durban

According to Malenkovich (2012), money may be the main motivator for cybercriminals as it is often "easy money". While each cybercriminal might have their own personal reason to commit online drug trafficking, or any other cybercrime for that matter, most of them commit this crime for the financial gain as drug trafficking via cyberspace is of low risk and low detection as mentioned in the literature of Chapter two. A study conducted in Germany revealed that more than 65% of respondents indicated that cybercriminals conduct online drug trafficking because of the money. The same study conducted in the United States revealed that 63% of respondents felt that money was the main reason for online drug trafficking (Malenkovich 2012).

According to the responses received during the interviews, many of the respondents shared the view that money or financial gain is the leading reason and/or factor why individuals resort to online drug trafficking.

All the respondents shared the same sentiment on this matter and the researcher selected few verbatim to express these sentiments. They responded as follows:

"The primary motive for people selling or rather committing crime is to make money. Social media has also brought a culture of showing off material things so, to an ordinary person, if he gets approached to commit this type of crime and he weighs the pros and cons, he may consider trafficking to make money." (Respondent one)

"People can also be enticed to do this crime because the money may be good. It is sometimes very difficult to find jobs so some people may see this as an escape or solution to their problems." (Respondent two)

"It's because of money wise. Because drugs is a lucrative business and that's why they get into drugs. The people who are recruiting all these drug mules are targeting all the low-class and low-income people who have nothing. They offer R10 to do this, the person will think it's a quick and easy R10 and do it." (Respondent seven)

Respondent three highlighted in his response that while money is the first and foremost gain, the reason that cybercriminals may be trafficking drugs is due to the fact that cyberspace provides a safer platform. This response can be linked back to the work of Mathews (2017), whereby the author stated that cyberspace creates an environment that is safe and protected by layers of encryption, thus making cybercrimes like drug trafficking more difficult to detect. Respondent three stated that:

"Firstly, for me, why people commit crimes, especially drug related, is because of money which is a gain. Secondly they will look at the chances of being caught. When you commit a crime, you obviously evaluate. If I take chances and I'm caught then I'm in trouble so in the event of the cyberspace, it creates a safer platform hence they commit this crime."

Respondent five stipulated in his response that online drug traffickers commit this crime because of material gain and not just financial gain alone. While these individuals may not be using the drugs that they traffic, they certainly sell them to get the material possessions that they want without them having to put in much effort and work tirelessly for it. Respondent five stated in his response that:

"In my professional experience, addicts, however they may have been introduced to drug abuse, are pressured to continue by virtue of their addiction. Traffickers are not necessarily addicts/users, but engage in this practice for personal material gain."

In addition to this, respondent six added a new reason to the crime of online drug trafficking. While stipulating the norm of this theme, which is monetary gain, he also indicated other reasons as to why an individual would engage in drug trafficking via cyberspace.

In his response he states that:

"Could be peer pressure and wanting to be a part of something. The lack of finances also causes people to want to do this crime; it is an easy way out. People who don't have a lot of things may want quick money to buy certain material goods. Also poverty leads people to commit crime."

The response above highlights that peer pressure and poverty may be a reason as to why some individuals engage in online drug trafficking in Durban. According to Pokhrel (2015), the National Statistical Bureau's qualitative study revealed that more than half the crimes that were drug related during 2012 to 2014 were due to peer pressure. Furthermore, Pokhrel (2015) states that between July 2012 and July 2014, 15% of drug-related crimes were committed because of poverty. This confirms that while many people traffic drugs via cyberspace for money or material gain, there are also other factors such as peer pressure and poverty that contribute to this crime, especially in contemporary Durban where peer pressure and poverty are rife in several communities.

In light of respondent six highlighting important contributors to online drug trafficking in Durban, respondent eight added another reason for such a cybercrime. In his response, he stated that:

"Committing crime is a, each person's opinions. I won't say it's because of pressure or stress, you know? It's that particular person that does not have the integrity knowing that what they are doing is a crime so stress and pressure will not amount for a person to do that."

From the responses above, it is evident that money is the leading factor that motivates people to traffic drugs via cyberspace in Durban. However, there are also other factors such as peer pressure, poverty and personal choice that affect an individual's decision to engage in online drug trafficking in Durban. This was consistent with the findings of the study conducted by Pokhrel (2015) and Esiri (2016), whose research revealed peer pressure, poverty and individual choice as reasons for crimes such as online drug trafficking.

The following discussion pertains to the theme of harsher punishment as a means to deter crimes including online drug trafficking.

# 5.10. Harsher punishment as a means to deter online drug trafficking

It is often believed that harsher or longer sentences have a direct effect on lowering the incidence of crime. However, Adwar (2014) states that while this may work in certain instances, it is not always the case. The researcher is of the view that the reason behind this narrative is the belief that punishing a person will make him/her less likely to commit the action that led to the punishment (in this instance, drug trafficking via cyberspace).

According to the interviews conducted, four of the respondents were of the view that harsher punishment can deter drug trafficking via cyberspace. The verbatim quotes of the four respondents are as follows:

"Yes it would, but then we must also focus on end users because if there is no market for drug peddlers, they will end up with a product that is useless to them so more focus should also be on the end users. Better rehabilitation and better awareness programmes should be there, better relationship between law enforcement and the communities." (Respondent one)

"I think that yes it will contribute to reduction of the crime. Not to state that it will make drug trafficking fade away, but harsher sentences will make a difference especially to the traffickers but not necessarily to the users." (Respondent three)

"Yes it would. If the punishment is increased then definitely it would. Harsher sentence. Two to four years for smuggling 2kg of uncut cocaine. That 2kg of uncut cocaine, you make 6kg so how many lives are being destroyed? So I would definitely say that harsher punishment should be given for that." (Respondent seven)

"Yes that will do. Why I'm saying this is because if they say you are found committing a crime such as drug trafficking, you are going to be convicted to life sentence or death sentence, I should think that it would curb crimes such as this." (Respondent eight)

From the responses above, it is evident that the four respondents believe that harsher punishment would curb crimes such as online drug trafficking. However, on the contrary, half (the other four) respondents believe otherwise.

From the interpretation, the researcher was able to identify that they did not believe that harsher punishment would curb drug trafficking via cyberspace because these four respondents believe that the cybercriminals would go back to old habits despite harsher punishment. The verbatim quotes of these respondents are as follows:

"Harsher punishment may remove the dealers or others involved but this may not curb the problem. As people are addicted to drugs, there are others addicted to selling them. In current time, drugs are even found in prison so there is no surety that a harsher punishment will stop or curb drug trafficking." (Respondent two)

"How harsh can you really punish a person? Sometimes it won't change them." (Respondent four)

"If longer sentences or capital punishment was what you have in mind, then my answer would be NO. If it were up to me, punishment for crimes committed should at least have a two-fold objective. One, to act as a strong deterrent to the individual in question as well as other potential offenders and two, as a mitigating or productive endeavour by the State. To clarify, in the current practice, the State assumes all of the costs of offender incarceration. The only 'punishment' experienced by offenders is a geographical movement restriction. The corruption element has seen inmates being provided with appliances, information and communication devices, entertainment and even prostitutes. I would utilise inmates as forced labour for the benefit of the State and the community at large. The bare minimum for survival, such as bread and water would be provided. The inmates must work to earn a wage, from which their upkeep and medical expenses would be deducted. At the end of their term served, any savings accrued must be handed over to them to enable a new start without resorting to criminal enterprises." (Respondent five)

"For some, yes. But for many people it won't because they will relapse into old habits especially if they are comfortable with finding money easily." (Respondent six)

From the responses received above, it is evident that the four respondents strongly believe that harsher punishment will not curb online drug trafficking. The respondents are of the view that despite harsher punishment, or longer sentences for that matter, there are still many people who will go back to what they know best and that is to use cyberspace to traffic drugs. Under this theme, there was a divide in the responses amongst the respondents.

Half were for the idea that harsher punishment can curb online drug trafficking while the other half stated that this would have no effect on deterrence of drug trafficking via cyberspace. The following discussion pertains to the theme of the beneficiaries of drug trafficking via cyberspace.

# 5.11. The beneficiaries of drug trafficking via cyberspace

In Chapter two, the researcher discussed that the beneficiaries of drugs being available online are the youth. The researcher also stated that anyone with access to the internet and a need to attain drugs was benefiting from drugs being available via cyberspace. According to the responses received during the interviews, the respondents had varying views in terms of who they thought were benefiting from drugs being available online. The respondents stated that:

"I think it would be the distributors who will benefit from that." (Respondent one)

"The dealers. They benefit a lot. The main aim of a business is to make profit and they are making quick cash and that is why the crime of drug trafficking is so high." (Respondent two)

"The drug dealers." (Respondent three)

"Firstly, the user. Because they will have access to the drugs and secondly, the distributor or the trafficker because he is gaining sometimes untraceable money and he is in the position to be somewhat anonymous." (Respondent four)

"The buyer benefits as he/she can now shop online from a variety of sellers. He/she can compare prices, volumes, strains, processing, packaging requirements, shipping and delivery. The seller also benefits as they can advertise on various platforms. The seller can advertise 'safely' due to the relative anonymity of the deep/dark web. The seller can also 'shepherd' prospective buyers by advertising different rates/combinations across multiple profiles. This can also make it difficult to track the seller.

The manufacturers benefit by at least three degrees of separation from the end user. They can cultivate, harvest, process and distribute to re-sellers with risk at only those points of intersection. Distributors benefit by plausible deniability. Similar protection to courier companies. All they have to show is a minimal effort to ensure that they did take necessary steps to combat complicity in illicit activities'" (Respondent five)

"The seller who is sending out the product and the supplier as well" (Respondent six)

"The manufacturers. Because everything goes through the manufacturer. And the one using the internet may advertise and promote their drug'" (Respondent seven)

"Youngsters. Teenagers. From the age of 18 to 30, mostly. Because they are the ones to mostly use this online technology unlike older people. Even the businessman, the people with money. They are also involved with drugs." (Respondent eight)

From the responses above, it is evident that the respondents view different individuals as benefactors of online drug trafficking (youngsters, teenagers, suppliers, the dealers and the users of drugs). Their responses are confirmed by the researcher based on the discussion in Chapter two, whereby the researcher indicated that almost anyone may benefit from online drug trafficking. The researcher wishes to discuss the theme of the most common drugs that are sold online.

# 5.12. The most common drugs that are sold online

According to the National Institute on Drug Abuse (2017), marijuana (or cannabis) is the most commonly-used illegal drug. As stated in Chapter two, there are several drugs that are available on the various underground marketplaces on the dark web. When the researcher asked the respondents which drug or drugs they thought were most commonly sold online, the respondents answered as follows:

"I'm not sure but most probably anything that is in demand or is risky to get from the streets.

Drugs like cocaine, ecstasy and so on." (Respondent one)

"There are many but I think cocaine and mandrax. The deep and dark web makes it possible to get any drug you want but these are the two that I know for sure are sold via cyberspace." (Respondent two)

"I'm not too sure because I don't really know what those sites offer, but I can say maybe marijuana, ecstasy and cocaine because those are in high demand all the time." (Respondent three)

"For starters, everything. I personally think that the ones that are the easiest to conceal where a person can easily pick it up or drop it off. For example, mandrax." (Respondent four)

"The ones with the highest demand at the date/time of an inquiry." (Respondent five)

"Cocaine, ecstasy and marijuana." (Respondent six)

"Hashish, dagga oil, ecstasy, crystal meth, cocaine." (Respondent seven)

"Mostly crystal meth, ecstasy, CAT and its chemical, BP ephedrine, the chemical to manufacture CAT." (Respondent eight)

From the responses above, it is clear that the answers vary amongst respondents. However, there are instances whereby certain respondents' answers coincide with one another. For example, respondents one, two, three, six and seven all shared the same view and stated that cocaine is one of the most available or common drugs online. The above responses will be discussed in greater length in the following chapter, where the researcher wishes to discuss the final theme that pertains to the effectiveness of South Africa legislature and policies.

# 5.13. The effectiveness of South African legislature and policies

This discussion covers three themes as the researcher wished to group them to avoid tautology. This discussion pertains to theme six (insufficient South African legislature and policies to combat online drug trafficking), thirteen (police incompetency to deal with this form of cybercrime) and theme fourteen (Electronic Crime and Transaction Act (ECTA)). According to the responses received from the interviewees, there were various views on the South African legislature and policies. The verbatim quotes below indicate the views of the respondents in terms of the current laws and policies that South Africa has in place to combat cybercrime, and more specifically drug trafficking via cyberspace. The respondents were first asked the question: "The Cybersecurity Bill was presented in parliament in February 2017. What do you think this means about South Africa's knowledge about the occurrence of cybercrime?" The following four quotes where chosen to indicate their responses to this question:

"The Bill is still being, it is not yet enacted and there are many challenges regarding the Bill itself. I think also the terminology and what constitutes a crime in terms of the Bill itself so we are still lacking behind because I think in other countries, like for instance our neighbouring country Zimbabwe, we got the ministry. I'm not sure but it is something relating to cyber.

There is a ministry that deals with cyber-related offences and in South Africa, we still don't have that yet as a ministry so we are lacking behind when it comes to addressing the cyberspace." (Respondent one)

"We are behind with such a matter and we need to pay attention to this area of crime as we do others." (Respondent three)

"I wouldn't say that it's too late. Remember, we stay in Africa, we are a third world country and we are always catching up, even our technology is third world technology so we are still trying to catch up. It could have been done earlier and it would have prevented a lot of crimes already. I think the current laws we have are sufficient but only that the Cybersecurity Bill is more specific to cyberspace. I think it will make people more curious about cybercrime itself and with curiosity comes two things: good and bad things. Like the internet which is there to help, but it can be used for good or bad things. With that curiosity, doors will be opened to drugs where people would normally not talk about drugs." (Respondent four)

"It means that it came to the attention of the government, that this is one of the aids used by criminals to commit crime, which is why they presented this as a Bill or something that needs to be passed as a law. I can't say exactly its late or early but what I can say is that, as long as cybercrime has been identified as one of the modus operandi used, it is a very good time now that the government is engaged and can see what can be done to curb that crime. It is very much a priority." (Respondent eight)

The respondents were then asked: "Do you think that the current laws and policies that South Africa has in place are sufficient to combat and deal with cybercrime such as online drug trafficking?"

# The respondents said that:

"I would think so. However, I have not heard anything lately on the news where a bust was done but initiated from cyberspace environment so I think in terms of cyber itself, maybe the Bill will cover it and make it, well I think it's already criminal but then to strengthen the Bill to have narcotics. I think also, the Bill will strengthen what we already have in terms of legislature.

For example, have regulations in place for the service providers to have more turnaround times in terms of providing information to law enforcement and also to try and regulate the internet from a South African point of view. We can strengthen all our sides, from entering the internet and so on. ISP must also play their role." (Respondent one)

"I think if they can utilise them properly and effectively they can do much, but at some stages they are not utilised properly and as such you would see the escalation of cybercrime but the arrests and sentences of those are not here. The last time, we heard about that person that sent information about MiWay and now Liberty is also involved, so its talked about and everybody hears about it, but how effectively are we jumping into that and addressing it is what we need to look at." (Respondent two)

"Well, one can say that the laws of the country, we are sufficiently equipped. I think that cyberspace is an enabling factor because if a person has to be charged for possession of drugs, dealing in drugs or anything related to drugs, there are laws for that. The laws we have are sufficient in my opinion." (Respondent three)

"I think so. We must be careful not to be fooled. Sometimes people are fooled into thinking that a new law means that things are under control so we need to be careful of that. But then again, not capacitating the police is another challenge that may hinder the current laws from being successful in combating this crime. South Africa is one of the countries with the most drug laws but look at the crime rate, so putting wrong people in the place of making laws can also put the country in trouble. Instead of making new laws, we should better understand and enforce existing laws." (Respondent four)

"No. As indicated before, many initiatives are talked about, but nothing substantial has materialised to actively assist the members on the ground who actually have to do the work." (Respondent five)

"No. If it was then this type of crime would not be on the rise. The lack of policies surrounding cybercrime makes it easy for drug traffickers to use that method to conduct this form of crime." (Respondent six)

"No. People can do whatever they want with the web. You can put on a picture of anyone, pretending to be someone. There needs to be some sort of verification. If there is verification, then we know where the trafficking is coming from." (Respondent seven)

"For now, no. Why I'm saying this is that as members, we are still behind in comparison to these criminals, they are ahead of us so you know, and we need to be ahead of them all the time. We must not chase them since they are criminals because they will be committing and we are going back to them now. There are some countries in Europe that are mostly using technology to curb crimes so I should think if as a country and South Africa, we should copy a model that they are using that side, successfully then that would help a lot. Devices such as tracker, grabbers, cell finders, pins. These are the things, these are the devices that if used correctly and precisely, can curb crime successfully." (Respondent eight)

The researcher further questioned the respondents on the South African laws and policies. The question asked by the researcher was: "How can South African laws and policies be improved to better combat cybercrime?" The respondents indicated their views in the quotes to follow.

## The respondents said that:

"I think by forcing the ISPs to better understand their clients when they take up services with them. From a policing point of view, it becomes easier to trace the perpetrators. So yes, I think maybe the ISPs, the internet service providers should be the ones to be at the forefront in terms of them getting to know their own customers, who they are and validate the information that has been provided to them and not just accept the information. So make it criminal for the failure on the part of the ISPs if they are not properly vetting their customers." (Respondent one)

"By SSA means but I think South African laws are fine, it is the use of it that needs work. We need to train our law enforcement officers better and have constant updates educating them on the laws and how to use them." (Respondent two)

"We are working on the Bill, the Bill has been presented and it was also sent for debate. Our constitution also allows us to consider international law so we can also consider international law to ensure that we have a serious and strong legislation that will deal in this. Other issues one could look at again is your conventions on drugs and cyberspace itself. Although some of South Africa may not be participating but these are issues that we must consider to ensure that we look at this issue carefully. Also what is important is we must look at the changing world. Socially, things are becoming different. Cyberspace could have been a space to enhance communication and education but to a greater extent it is being misused." (Respondent three)

"I don't think that the laws are a problem. It's the people that are a problem. There are thousands of laws in South Africa but it's just not imposed." (Respondent four)

"Consultation with best practices of foreign Law Enforcement Agencies (LEAs), staff on the frontlines combatting these types of threats. Revised recruitment and retention strategies for competent and proficient personnel." (Respondent five)

"Adopt international laws such as the Roman Dutch law. Look at other countries that are successful in combating this crime then adopt some of their methods, laws, policies and ways of preventing this crime in our country." (Respondent six)

"One of the reason would be that as members of the security agency, we need to be orientated and workshopped on a regular basis so that we can be aware of this and be knowledgeable, because at times you can be given a device but if you don't know how to use it correctly, it might not be useful which is why I'm saying that it is very much important to be knowledgeable about these things." (Respondent eight)

In concluding this section of questions that pertained to the South African laws and policies, the researcher noted several aspects in terms of the laws and policies in place to combat cybercrime. The respondents provided very open responses and while some were for the laws and policies, there were others who felt otherwise.

For example, some felt that our laws and policies to combat cybercrime were sufficient and that they were just not properly used. On the other hand, there were some respondents who stated that we should examine what other countries are doing to curb cybercrime and adopt those very methods in South Africa. While several other areas were mentioned by the respondents, the researcher has chosen to reserve that discussion for the following chapter whereby the findings will be discussed in greater detail.

## **5.14.** Conclusion

This chapter provided a brief overview of the methods and materials that were used to collect data. It touched on the data analysis that was used to analyse the data and closely identified and reported on the themes that were obtained through an analysis of the data that was received from the field. The researcher not only identified themes but also elaborated on them while providing verbatim quotes where necessary. This chapter offered an insight into the phenomenon of online drug trafficking. In the chapter to follow, the researcher will be discussing the findings.

## References

Adwar, C., 2014. *Here's evidence that insanely long prison terms are a bad way to deter crime*, retrieved from https://www.businessinsider.com/report-says-long-sentences-dont-deter-crime-2014-5?IR=T on 10<sup>th</sup> September 2018.

Drug Rehab, 2018. *Online drug trafficking becoming alarming*, retrieved from https://www.drugrehab.us/news/online-drug-trafficking-becoming-alarming/ on 3<sup>rd</sup> September 2018.

Esiri, M.O., 2016. The influence of peer pressure on criminal behavior, *ISOR Journal of Humanities and Social Science*, Vol 21.

Lusher. A., 2016. *The UK's dark web drugs market now dwarfs any other in Europe*, retrieved from https://www.independent.co.uk on 4<sup>th</sup> September 2018.

Malenkovich, S., 2012. *What motivates cybercriminals? Money, of course*, retrieved from https://www.kapersky.com/blog/what-motivates-cybercriminals-money-of-course/717/ on 6<sup>th</sup> September 2018.

National Institute on Drug Abuse, 2017. *Most commonly used addictive drugs*, retrieved from https://www.drugabuse.gov/publications/media.../ on 12<sup>th</sup> September 2018.

Nowell, L.S., Norris, J.M., White, D.E. & Moules, N.J., 2017. *Thematic Analysis*, retrieved from https://www.journals.sage.pub.com/doi/10:1177/16094069177338847 on 24<sup>th</sup> August 2018.

Peck, R., Olsen, C., & Devore, J., 2011. *Introduction to statistics and data analysis*, California, Cengage Learning.

Pokhrel, N., 2015. *Peer pressure leading youth to crime*, retrieved from https://www.kuensel.com/peer-pressure-leading-youth-to-crime/ on 8<sup>th</sup> September 2018.

Rajnovic, D., 2012. *Cyberspace – What is it?*, retrieved from https://www.blogs.cisco.com/security/cyberspace-what-is-it on 30<sup>th</sup> August 2018.

Sedgwick, K., 2018. *These are the most popular darknet marketplaces right now*, retrieved from https://www.news.bitcoin.com/these-are-the-most-popular-darknet-marketplaces-right-now/ on 4<sup>th</sup> October 2018.

St. Pierre, E.A. & Jackson, A.Y., 2014. Qualitative data analysis after coding, *Qualitative Inquiry*, 20(6), 715–719.

## **CHAPTER 6: DISCUSSION OF FINDINGS**

## 6.1. Introduction

This study focused on the use of cyberspace to traffic drugs in Durban, South Africa and highlighted how drug dealers turn to cyberspace (which is available to almost all individuals because of the abundance of internet cafes and smartphones) to conduct their illegal business which is drug trafficking via cyberspace. This study seeks to further understand the pressing issue of drugs in the community by identifying those who are most affected by its existence and usage. In addition, this study discussed the legislature and policies that South Africa has in place to combat online drug trafficking and to determine the drugs that are most likely to be sold online. The study made use of an exploratory research design and a qualitative research approach in order to obtain rich and detailed information from the respondents. The research tool used was a semi-structured interview (six scheduled and two unscheduled). There were eight one-on-one interviews that took place with police officers from the cybercrime division of the South African Police Service. After obtaining the data, the researcher used thematic content analysis to analyse and interpret the collected data based on identified themes. It is from that very analysis that this chapter has come about, which will be discussing the findings of the study. The researcher will integrate the literature and theories to discuss the findings in this chapter and will demonstrate the achievement of the objectives in this chapter.

# 6.2.1. Objective one: To examine the use of cyberspace to traffic drugs in Durban, South Africa.

The first objective of this study was to examine how using cyberspace would aid cybercriminals to traffic drugs in Durban. From the findings of this study, it is clear that cyberspace is used as a platform to communicate. Cyberspace provides a way for individuals to communicate and sometimes this is for illegal reasons (to traffic drugs for example). Cyberspace offers a level of safety by providing users with a service of encryption if needed. Due to this, drug traffickers are able to communicate freely with buyers and other contacts such as their distributors or manufacturers. This finding is confirmed by Crawford (2016), who stated in his article that due to encryption and the use of virtual private networks, all data sent between the network and the user is securely encrypted.

The study shares the same sentiment of Crawford (2016) that with the use of virtual private networks and encryption, cybercriminals have a way to be in constant communication with their counterparts with little detection of who they are or that they are trafficking drugs. With cyberspace being a platform for communication, it plays a vital role in online drug trafficking because the communication between individuals allows for the sale or purchasing or drugs to occur successfully. Those involved receive all the necessary arrangements and details to ensure that the drugs are travelling safely from the seller to the buyer. This finding is in accordance with the Classical School of Thought which states that individuals have free will. Using cyberspace to communicate is a choice the individual makes on their own because they want to. Cesare Beccaria and Jeremy Bentham stated in the Classical School that individuals are rational beings and have the power to decide between what is right and wrong. Based on the findings of this study, the researcher is of the view that individuals are aware that using the dark net to communicate in relation to drugs or drug deals is wrong, yet there are many who continue to use cyberspace as a platform for communication.

Cyberspace contains various layers, as discussed by Das (2017) who stated that cyberspace consists of the surface web, the deep web and the dark net. With the dark net, there is the existence of dark net marketplaces where one can buy anything one wishes to. The current study found that the existence of such marketplaces is one of the ways in which cyberspace is used to traffic drugs in Durban. These marketplaces exist only in one area of cyberspace and because it offers any possible item (drugs, weapons, ammunition), it attracts many individuals. Three major sites (Silk Road, Agora and Alpha Bay) that were discussed in the literature chapter (see Chapter two, heading 2.4.) further supported the researcher's view that the existence of dark net markets is how cyberspace is used to traffic drugs in Durban. The number of products and users on these sites were indicative of how many people were accessing such sites and thus using cyberspace to do so.

Cyberspace is used to traffic drugs because of the incredible amount of anonymity and encryption involved (Nicol 2016). This was also the case with the current study, which found that using cyberspace to commit cybercrimes such as online drug trafficking is due to the increased level of anonymity that cyberspace offers. The study finds that cybercrimes, particularly drug trafficking, are difficult to track or trace because of encryption and anonymity.

In accordance to the study conducted by Mathews (2017), The Onion Router (TOR) also plays a major role in providing security to users of the dark net. In his study, Mathews (2017) highlighted that TOR makes it difficult for illegal activities to be traced back to the source. The findings of this study coupled with the study conducted by Mathews (2017) further reinforce that cyberspace is used to traffic drugs because it offers a great amount of safety and security to the person behind the computer or any other device being used to traffic drugs. Whether the individual is a first timer or has trafficked drugs several times, the safety of using cyberspace allows them to back out whenever they wish to. Ultimately, this means that tracing or tracking down such individuals will be harder to do.

The use of Virtual Private Networks (VPNs) and TOR are also aids in terms of cyberspace being used to traffic drugs in Durban. The findings of this study noted that VPNs along with TOR assist cybercriminals by hiding everything about them. It is extremely difficult to track a location or to find the identity of the person behind the device because of these two softwares. The researcher found that VPNs allow geo-spoofing which can make it increasingly difficult to find the location of the cybercriminal. Geo-spoofing occurs when the cybercriminal becomes synced to the country of the VPN server even if they are in a completely different country altogether. This means that police may be looking for a drug trafficker in America but the criminal may be in Durban. It is because of this coupled with the layers of encryption that TOR provides that cyberspace (the dark net in this case) is used to traffic drugs. The above findings of VPNs and TOR being ways that cyberspace is used to traffic drugs is confirmed by the study conducted by Nicol (2016). The author states that while VPNs and TOR have their benefits (such as providing protection against hackers and allowing users to have privacy whilst using cyberspace), they also opened the door for several illegal activities, one of those being drug trafficking.

According to Beccaria's Classical School, humans are rational beings who possess the ability to make morally acceptable decisions and thus know the difference between right and wrong. The use of software such as TOR and VPNs to conduct drug trafficking shows that the drug traffickers have chosen to use cyberspace for the wrong reasons. As they are rational beings, it shows that they are aware of their decisions and choices but have continued to carry out the trafficking of drugs.

With the hedonistic calculus in mind (reward outweighing punishment), software tools that are supposed to be used for their advantages (protecting government data) are instead used to commit cybercrimes such as drug trafficking.

From the findings, the researcher identified one particular respondent who highlighted that drug trafficking via cyberspace is cheaper and quicker. This can be supported by the Classical School of Thought, which emphasises that humans are rational beings. The Classical School of Thought explains the drug trafficker as a rational being who is able to make sound decisions by identifying what is right and wrong. However, he rationalises that by dealing with drugs through the use of cyberspace, he is able to avoid dodgy street corners and dangerous drug lords. It is important to note that the trade of online drug trafficking takes the technical skill of an individual with a certain cognitive level to rationalise that trafficking drugs online is cheaper and quicker than street trading of drugs. These may be the thoughts that the drug trafficker rationalises before going to the computer to access sites that facilitate online drug trafficking.

The current study found that another way in which cyberspace is used to traffic drugs is through the existence of cryptocurrency such as Bitcoin. Cooke (2018) confirms that this form of digital currency is untraceable thus making underground deals for drugs more enticing. Furthermore, Cooke (2018) states that it is different from the normal banking system and does not have any physical appearance. The researcher opines that cryptocurrency relies on the internet to determine its value. This means that drugs may be cheaper than their street value and with this coupled with word-of-mouth, more individuals would want to use cyberspace to traffic drugs. The study found that there are various advantages to using cryptocurrencies such as Bitcoin. For example, the currency is accessible at any time without having to go into the bank or wait in a line and there are lower transaction fees. Riggs (2018) arrived at the similar findings when he stated that cryptocurrency such as Bitcoin allows for the accessibility and ownership of one's personal funds. Merton's Strain Theory postulates that the stress and frustration of not being able to obtain funds or make payments without being questioned by the bank can become increasingly frustrating for individuals. For this reason, they may decide to use cryptocurrency to partake in illegal online trade such as buying drugs. The digital currency offers them the opportunity to shop for drugs without being questioned along with a traceless payment.

Whilst examining the use of cyberspace to traffic drugs, this study found that the reason for this is because cyberspace is borderless. The researcher did not find any studies or literature on this aspect of the topic of online drug trafficking. However, it is a new finding that the researcher wishes to highlight. Essentially, this means that there is no limit to cyberspace. It is a gateway to some of the darkest trades, such as drug trafficking as depicted in the image by Das (2017) in the literature chapter (see Chapter two, heading 2.3.3). Due to cyberspace allowing individuals the freedom to do as they please, it has permitted cybercrimes like drug trafficking to take place. Coupled with anonymity and cyberspace as a borderless virtual environment, cybercrimes like drug trafficking are bound to be increasing in number and popularity.

The study found that cyberspace is used to traffic drugs in the sense that it allows for a platform for cybercriminals to advertise. The researcher did not initially discover this when collecting secondary data on the phenomenon of drug trafficking. However, one participant highlighted this fact during the interview, which the researcher discovered during the data analysis and interpretation. Cyberspace, being an open hub, is used to traffic drugs by permitting the advertisement of dark market sites and the drugs that they contain. Furthermore, it assists in increasing the number of people using the site. In some instances, the dark market site may advertise a sale to lure the user into the site. Cyberspace may be used to advertise for courier services to traffic the drugs, for new suppliers or manufacturers, and may even entice users who initially did not intend on purchasing drugs. The discovery of this finding was pertinent to the findings as advertising is the reason why many individuals become involved with online drug trafficking. After seeing an advertisement, the person is more likely to adopt the "agree first and ask questions later" approach. This is due to the cybercriminals reassuring such individuals that they will not be detected and will be protected by the several layers of encryption and anonymity that the dark net offers. The cybercriminals advertise and then persuade individuals into online drug trafficking by offering the notion of safety. The use of cyberspace to advertise for drug trafficking is incredibly web savvy and shows the extent of the use of cyberspace to traffic drugs.

In achieving the objective of examining the use of cyberspace to traffic drugs in Durban, the current study found that there are various ways and contributing factors that lead individuals to traffic drugs via cyberspace.

Some of the ways that cyberspace is used are through the existence of the various dark markets, the difficulty to trace the user, the presence of digital money and the characteristic of being borderless. It was noted that the two major contributors to cyberspace being used to traffic drugs are that cyberspace offers a great amount of anonymity and that it provides a platform for communication.

The above information can be seen in the diagram below, which shows the various ways in which cyberspace is used to traffic drugs.

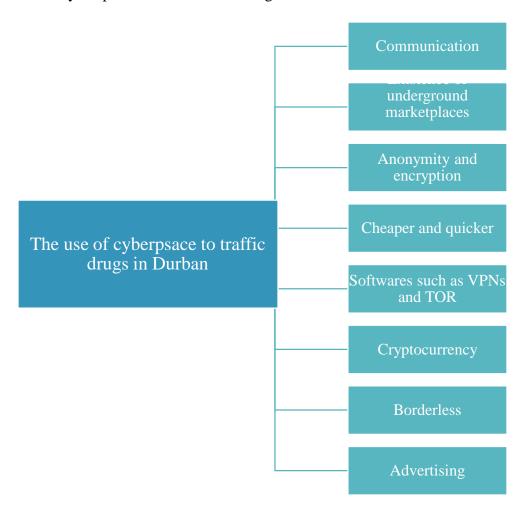


Figure 22: Various ways that cyberspace is used to traffic drugs in Durban, South Africa

The figure above is a visual representation of the examination of the use of cyberspace to traffic drugs in Durban. It is a depiction as well as a summary of the various ways that cyberspace is used in this regard.

In the following section, the researcher will be discussing the second objective of the study, which is to determine the beneficiaries of drug trafficking via cyberspace in Durban, South Africa.

## 6.2.2. Objective two: To determine the beneficiaries of drug trafficking via cyberspace in Durban, South Africa

The second objective of this study is to determine which individuals benefit from drugs being available online. This study found that there are several beneficiaries of drug trafficking via cyberspace. However, the individuals who benefit the most are the youth, typically in the teenage range. This claim can be confirmed by the work of Ndinda (2013), who highlighted that the youth are the most vulnerable due to peer pressure and their curiosity to experiment with drugs. Furthermore, she supports the study's finding that the youth are benefiting the most by sharing the view that youngsters are unable to withstand stressful issues associated with life and, for this reason, they resort to drugs and drug trafficking.

Merton's Strain Theory explains this very behaviour. Youngsters become stressed or frustrated with certain aspects in life. Some of the youth may be experiencing certain strains (neglectful parents, abuse, broken homes) and they turn to drug trafficking as an escape from their current situation. There are several instances when youngsters are also friends or relatives of drug traffickers and, if they look up to these individuals, they would then want to follow in their path, thus becoming involved with drug trafficking via cyberspace. In Durban, youngsters are often left to fend for themselves whilst their parents travel for work. This lack of parental care and attention may leave them feeling frustrated, especially if they are witnessing others receive the love that they crave. This frustration as well as the urge to help their parents make money (so that they would not have to leave for work) compels them to traffic drugs via cyberspace.

Bisson (2015) confirms the finding that the youth benefit the most from drugs being available online because cyberspace offers anonymity, security and efficiency. In accordance with his article, the findings of this study noted that it is easier for the youth to purchase drugs online, especially since they can hide their age behind fake profiles when dealing with the seller. The study found that with the vast amount of drug markets on the dark web, the youth will be able to access one site or the other to obtain the drug of their choice.

To further highlight that the youth benefit the most, the study found that regardless of addiction, experimentation or actual drug dealing, the youth are the group that is most vulnerable to drug abuse. This was confirmed by Bisson (2015), whereby he stated that with the internet at the tips of their fingers, the youth are drawn to experimentation especially with drugs that they may not be able to obtain from the streets. Another aspect is that they will not be questioned and it is convenient for them as they are not subject to revealing their real age or identity. With this, the findings can also make reference to the Classical School of Thought because the youth commit the crime of drug trafficking via cyberspace on their own. They are aware that they may face consequences but they choose to traffic drugs via cyberspace despite this.

Another beneficiary of drugs being available online are the sellers. The study did not initially identify them as beneficiaries of this cybercrime but, upon data analysis, the researcher discovered this. The respondents from this study shared the sentiment that the seller benefits greatly because he is able to sell his drugs without the fear of getting caught as easily as he would if he was selling drugs on the street. The seller is also easier to reach in terms of the internet being active 24 hours a day all week long. For the seller, this allows individuals from anywhere in the world to purchase drugs, thereby broadening his client base globally instead of just one street or town. In addition, the seller benefits because they can make a large sum of money without having to leave their location. They make the sale via cyberspace and use a courier service for the rest. Unlike traditional drug sellers on the street, the cyberspace sellers do not have to reveal their identity to anyone since there is the use of courier services to transport the drugs that are being sold, just as one would shop online for any other item. Merton's Strain Theory explains that the desire to reach societal standards forces an individual into drug trafficking. The inability to possess certain qualifications or skills for a paying job leaves many people in Durban feeling frustrated.

The trade of drug trafficking does not require any degrees or special training, which is why it is seen as a lucrative trade for many. The Strain Theory makes provision for the explanation of individuals trafficking drugs as it depicts the level of strain the individual faces to go to such an extent of becoming a "worthy" member of the community and to be seen as successful. The hedonistic principle (meaning that pleasure exceeds pain) from the Classical School of Thought can also be used to explain why individuals traffic drugs.

For many people in Durban, drug trafficking via cyberspace provides more reasons to resort to illegal ways of making money in comparison to finding a job. This new-found pleasure of more money with little effort exceeds the potential risks involved with drug trafficking despite individuals being rational beings.

The findings of this study revealed that the drug user (this includes the youth) also benefits greatly from drugs being available online. There are several underage drug users and obtaining drugs via cyberspace is easier and safer for such users. They do not have to be concerned about being assaulted or getting caught by the police. It is also more efficient for youth users as they can hide their age and they do not have to physically go out and look for a dealer. Essentially, all users are beneficiaries of drug trafficking via cyberspace because they can purchase whichever drug they desire without any questions asked. They are not scrutinised for their choice of drug and neither are they recognised as users because they do not have to physically purchase drugs from a dealer in a specific area. In relation with the Classical School of Thought, they use their free will to decide which drug they want to purchase. The Classical School of Thought states that people are rational beings who are capable of making their own choices and this is clear in the user's choice to use cyberspace to traffic drugs. In addition, drug users benefit by drugs being available online in that they do not have to pay the steep street prices for the drugs, but rather they are provided with cheaper prices as well as the perceived safety and quality of the products that are available online. Furthermore, they do not have to travel any distance to purchase their drugs. To the user, there are additional benefits of using cyberspace to traffic drugs instead of using drugs bought from dodgy street corners. It is cheaper, safer and convenient.

The findings of the study also identified the manufacturer of the drugs as a beneficiary of drug trafficking via cyberspace. This finding was only discovered during the data analysis. The researcher did not initially identify the manufacturer as a beneficiary during the review of literature but later realised their role in drug trafficking after analysing the data from the interviews conducted. The manufacturer plays a vital role and without this key player, there would be no drugs to sell on cyberspace. It is also convenient for the manufacturer to locate the supplies that are needed to make the drugs. With dark markets in cyberspace, there is an abundance of suppliers that the manufacturer can chose from to buy the necessary chemicals to manufacture the drugs.

In case of an emergency or shortage of a chemical, the manufacturer can easily purchase these ingredients via cyberspace. It is also noteworthy that once the manufacturer has completed the production of the drug, they are able to sell them to any place in the world and not just in their country of residence. This means that they are expanding their clientele as well as increasing the amount of money they make. The increased use and purchase of drugs via cyberspace results in more drugs being made to cope with the growth of global drug users.

In achieving the objective of determining the beneficiaries of drug trafficking via cyberspace, the findings of this study revealed that there are more than just one group of individuals who benefit from this cybercrime. Rather, the youth, the seller, the drug user and the manufacturer are benefiting from drug trafficking via cyberspace. They may all benefit differently (underage drug use, better method of selling, being able to buy drugs without being attacked or having access to supplies to make drugs), but they all benefit nevertheless because of cyberspace and the anonymity and ease of access that it provides. The beneficiaries of drug trafficking via cyberspace are illustrated in the diagram below

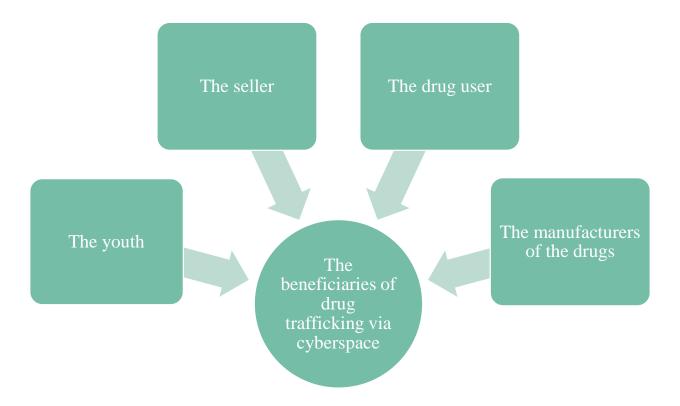


Figure 23: The beneficiaries of drug trafficking via cyberspace in Durban, South Africa

The figure above illustrates a summary of the beneficiaries of drug trafficking via cyberspace. The youth, the seller, the drug user and the drug manufacturers are amongst the individuals to benefit the most from drugs being available online.

In the following section, the researcher discusses the third objective of the study.

# 6.2.3. Objective three: To investigate the laws and policies surrounding drug trafficking via cyberspace in Durban, South Africa

The third objective of this study was to investigate the laws and policies that South Africa has in place surrounding drug trafficking as well as to examine how they are being implemented. The Cybersecurity Bill was presented in parliament in February 2017. The Bill covered cybercrimes such as hacking, cyber extortion and ransomware. This presentation of a key piece of legislature, especially surrounding cybercrime and drug trafficking, has still not been fully enacted. This study noted that despite having a Bill that may explain and be relevant to most forms of cybercrime, it is still lacking in the sense that it has not been put into practice yet, thus leaving law officials to turn to ordinary drug trafficking laws when prosecuting online drug traffickers. Furthermore, Finnigan (2017) confirms the study's finding that the Cybersecurity Bill does not make any mention of drug trafficking. The study found that it caters for common crimes such as those mentioned above (hacking, ransomware and cyber extortion) but it does not have substantial reference to drug trafficking, thereby showing the gap that this study fills.

The current study found that there are other laws surrounding drug trafficking that the researcher made use of to explain the phenomenon as these laws are relatable to drug trafficking. The study found that one of the most noteworthy laws in South Africa pertaining to drugs is the Drug and Drug Trafficking Act No. 140 of 1992. This law states that the possession, use of or dealing in drugs or any other related substance is considered to be illegal. This law may originally have been passed to deal with drug-related crimes that take place on the street, but due to the Cybersecurity Bill not being fully passed and enacted, drug trafficking via cyberspace is dealt with in similar regard to normal street-drug trafficking. Monyakane (2016) supports the finding that this law prohibits individuals from manufacturing or selling drugs including scheduled substances. With the use of secondary data, the study found that this law covers all areas of drug trafficking in Durban, South Africa.

This finding is supported by the article written by Lawrence (2016), whereby the author states that the Act is clear in terms of what it is supposed to do and it is easy to read. The study found that this law assists law enforcement with an all-round perspective of what is expected when handling a drug-related case (what should be reported, the role of the officer and the penalties involved). The study found the Drug and Drug Trafficking Act No. 140 of 1992 to be an elaborate and well-put-together law that is easy to comprehend and thus easy to apply to drug trafficking. With this, officials are able to understand and utilise the law correctly. They are able to read it on their own and use it in the drug-related cases it applies to.

Through the use of secondary data, the study found that the Medicines and Related Substances Control Act No. 90 of 1997 is applicable to drug trafficking because of the vast amount of scheduled drugs that are sold on dark net marketplaces. This law makes provision for certain substances (schedule 8 and 9) that are deemed illegal and not fit for use such as cannabis, LSD and amphetamines. It was found that this Act prevents the forging of prescriptions as well as unethical doctors who write out prescriptions for high-end scheduled drugs. The study found that this law aids in drug trafficking as its covers the area of scheduled medicines that require a prescription to be purchased. While this may not be the most commonly used law for drug trafficking via cyberspace, it does extensively cover the area of prescription medications which is increasing in sales via cyberspace dark net markets.

Whilst the study discovered and scrutinised the Cybersecurity Bill, the Drugs and Drug Trafficking Act and the Medicines and Related Substances Act, they all seemed to be limited in terms of drug trafficking via cyberspace. The researcher wishes to provide a diagram to illustrate each law and what it covers and what it is limited in.

The Cybersecurity Bill

- covers cyberspace
- does not mention drug trafficking via cyberspace

The Drug and Drug Trafficking Act No. 140 of 1992

- covers all areas of drugs and drug trafficking
- does not cover cyberspace

The Medicines and Related Substances Act No.90 of 1997

- covers prescription/scheduled drugs
- does not cover cyberspace

Figure 24: The different laws used in drug-related cases

The figure above is a visual representation of the three main laws that were found during the course of the study i.e. the Cybersecurity Bill, the Drug and Drug Trafficking Act and the Medicines and Related Substances Act. The diagram presents each law along with what it covers as well as the elements that are missing therefrom.

This diagram above was presented to provide a visual that there is no single law in South Africa that elaborately covers drug trafficking and cyberspace together under the same law. While the Cybersecurity Bill exists, its lacks in the sense that it does not incorporate all possible crimes that may occur via cyberspace. The findings of this study highlight that drug trafficking should be efficiently assessed and incorporated into the Cybersecurity Bill so that when drug trafficking via cyberspace does occur, there are proper laws relating to it to ensure that the appropriate punishment takes place.

According to the Classical School of Thought, the punishment that the criminal receives should fit the severity of the crime and that harsher punishment does not necessarily result in the deterrence of the crime (in this case, drug trafficking via cyberspace). More often than not, it is believed that if the criminal is punished greatly then that would make the person less likely to commit the act in the future.

However, the study found varying views in terms of whether harsher punishment would curb online drug trafficking. Half (four) of the participants of this study shared the view that harsher punishment would deter drug trafficking via cyberspace whilst the other four were of the view that greater or more severe punishments would have no effect. The study found that the participants who agreed with harsher punishment believed that online drug trafficking can be curbed if the drug trafficker is punished severely. Furthermore, the studied discovered that respondents shared the view that if punishment for drug trafficking was increased, then drug traffickers would feel sufficiently threatened by the law not to traffic drugs via cyberspace. The respondents shared the sentiment with Tierney (2009) that harsher punishments such as those of the eighteenth century (whipping, beheading and torture, for example) would not have any effect for the drug user, but that contemporary harsher sentencing (i.e. 25 years to life or the death sentence, depending on severity or amount of drugs that were trafficked) would have an effect on curbing drug trafficking via cyberspace.

On the other hand, there were four respondents who felt that harsher punishment would not curb online drug trafficking. Their belief was that despite harsher sentencing and punishment, the criminal would still go back to their old habits. This means that drug traffickers would still traffic drugs and drug users would continue usage despite being sentenced heavily (due to drugs being available in correctional centres nowadays). The findings of this study revealed that no matter how severe one punishes a criminal, it may not have the desired outcome of reducing the occurrence of cybercrime. If the market still exists for drugs, cybercriminal drug traffickers will go back to drug trafficking via cyberspace by their own free will, as supported by Cesare Beccaria and the Classical School of Thought, which states that individuals make their own choices and decisions as a result of possessing free will.

A contributing factor to note is that individuals will relapse into old habits such as drug trafficking because it is quick and easy money. For the user, there is always another dealer if the one being used gets imprisoned. This is a major cause as to why certain individuals will continue the cycle of drug trafficking regardless of the punishment they are given. In addition, the study found that instead of punishing drug traffickers severely, there should be better rehabilitation and awareness programmes made available to these individuals. In many cases, becoming involved in the world of drugs is a result of certain underlying issues such as stress and frustration, as mentioned by Merton in the Strain Theory.

Furthermore, a better relationship between law enforcement and communities should be established to prevent drug trafficking via cyberspace instead of only assessing the harshest way to punish the wrong-doer. The Classical School of Thought supports the reasoning that the punishment that the criminal is given should fairly fit the severity of the crime that is committed. The theory highlights rational choice and free will at the core of its teaching, which supports the researcher's reasoning that criminals choose their own path and that they make their own decision to engage in high-profile cybercrimes such as drug trafficking.

The study noted that there was a division in terms of harsher punishment for cybercriminals who are involved in drug trafficking via cyberspace. The researcher wishes to display this division graphically to provide a greater visual thereof, hence the pie chart below is a representation of the percentage who agree with harsher punishment and those who do not agree that harsher punishment will curb drug trafficking via cyberspace.

This study was able to discover new findings that the researcher had not been able to gather from secondary sources of data. The study found that while there were three major laws surrounding drug trafficking, there were various views about the effectiveness of these laws and policies. It was discovered that one particular view was that South Africa was lagging behind in effectively addressing cybercrime. The terminology and what constitutes a cybercrime is lacking as the Cybersecurity Bill and cybercrimes are not spoken about and addressed across Durban and South Africa as much as they should be. This results in a lack of awareness of cybercrime and online drug trafficking in Durban. If there is not much awareness, it makes the members of the community in Durban oblivious to the reality of cybercrimes. This lack of awareness makes individuals more susceptible to cybercrime.

The study found that Durban and South Africa are behind in terms of cybercrime and alerting the community about issues surrounding drug trafficking via cyberspace. Creating awareness and paying more attention to cybercrime not only assists in preparing and educating individuals about the occurrence of cybercrime but also helps to prevent them being victims of cybercrime, and possibly being able to watch their children more closely if they are aware that drugs can be purchased via cyberspace.

In addition to highlighting the lack of awareness, the study revealed unexpected findings when the researcher questioned respondents on whether the current laws and policies that South Africa has in place are sufficient to combat drug trafficking via cyberspace. Three out of eight respondents stated that the current laws and policies are sufficient while the remaining six stated that they did not think that the laws were sufficient to combat drug trafficking via cyberspace. The three views about the current laws and policies being sufficient to curb drug trafficking via cyberspace was because of the shared view that more focus should be spent on enriching and strengthening the laws that already exist instead of creating new ones. Cyberspace is merely an enabling factor and the primary crime remains drugs and drug trafficking, both of which South Africa has some of the greatest laws for. On the contrary, the five views regarding insufficient laws and policies are for reasons related to the current laws and policies not been effectively used as well as a lack of initiative to teach officials how to use these laws. The current laws and policies that South Africa has in place to combat drug trafficking via cyberspace are seen as insufficient due to the lack of policies surrounding cyberspace as well as a lack of proper devices to catch cybercriminals. In addition, the lack of verification makes tracking cybercriminals more difficult than catching a regular drug trafficker, hence the need for some assistance from government to aid law enforcement with this issue.

This study found that while there are three significant pieces of legislature available to assist with crimes related to drugs and drug trafficking, there are other ways in which they can be improved to enhance their effectiveness. These include: the Internet Service Provider (ISP) assisting law enforcement with tracking cybercriminals; to better equip and train law enforcement officers about the legislature and how to use it; to allow for the use of international laws especially from countries that are effectively combatting drug trafficking via cyberspace, and to allow for the provision of constant and consistent workshops surrounding cybercrime, its laws and how to deal with the various forms of this crime by updating officers who are at the forefront of the occurrence of drug trafficking that takes place via cyberspace.

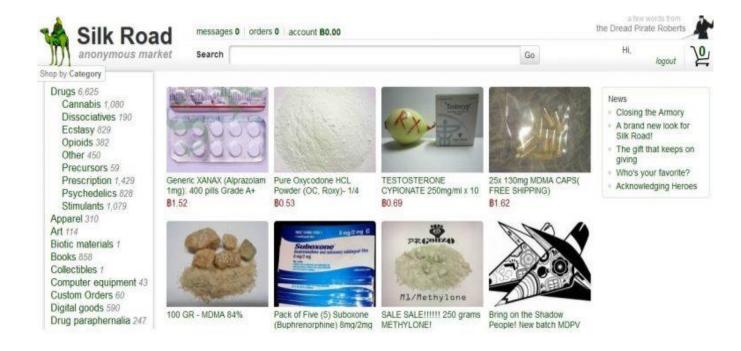
In achieving this objective, the study found that there are three main laws that apply to drug trafficking via cyberspace. These laws are the Cybersecurity Bill, the Drug and Drug Trafficking Act No. 140 of 1992 and the Medicines and Related Substances Act No. 90 of 1997. The study covered each law and how it related to drug trafficking via cyberspace in terms of what it covered and what it lacked. In addition, the study found that harsher punishment may be effective in curbing drug trafficking via cyberspace but it may also prove to be ineffective. The findings also revealed new information surrounding the legislature in South Africa to deal with drug trafficking via cyberspace. The new information highlighted issues such as the lack of awareness and attention paid to online drug trafficking as well as ways to improve the current laws and policies that we have.

In the following section, the researcher discusses the final objective of the study, which is to determine the various types of drugs that are most likely to be sold via cyberspace.

# 6.2.4. Objective four: To determine the various types of drugs that are sold online via cyberspace

The fourth and final objective of this study was to determine the various types of drugs that are being sold online via cyberspace through the use of dark marketplaces. There are three classes of drugs i.e. Class A, Class B and Class C (Hale 2017).

A further examination of sources showed that all three classes of drugs are available online via dark net markets such as Silk Road, Agora and AlphaBay, as indicated by the example provided by Mosk (2014) below and in Chapter two (see under heading 2.4.1).



(Mosk 2014)

Figure 25: Types of drugs that are sold online

Figure 25 above is an example of the various drugs that are available online via the dark net markets such as Silk Road. It is clear from this image that drugs is the biggest category compared to the rest. The image also displays the various drugs that are being sold online as well as how many sellers of that item are available.

The study found that cryptomarkets such as Silk Road are an open hub to any drug that the user may want. It was highlighted from the data that the drugs that are sold online are those that are most likely to be in demand or that are risky to be sold on the street such as cocaine and ecstasy. Spillane (2017) confirms this finding by stating that drugs such as cocaine are extremely powerful and, as addiction grows, so does the craving for more of the drugs. Spillane (2017) goes further to say that in instances like this, the drug user is eager and desperate to find different options and routes to aid their drug use. With cyberspace being available all day long, it impossible for the user not to find a way to purchase drugs online, as stated by Spillane (2017).

During the course of the interviews, the researcher was interested in determining which drug was most likely to be sold online. The study's finding of this objective varied from each respondent. However, five out of the eight respondents replied that cocaine was the drug that was most likely to be trafficked via cyberspace. Kazor et al (2014) highlighted cocaine as a commonly used drug because of its ability to be absorbed in seconds. This means that the drug user starts to feel the effects of cocaine almost immediately. Kazor et al (2014) further explained that this "high" lasts for about half an hour. As a result, the user craves more of the drug to maintain the feeling of euphoria and well-being that the drug provides. This is where cyberspace is of value to the user. They can purchase any amount without questions and, while this may be dangerous, it is easier for the drug user to buy drugs via cyberspace than to risk being caught purchasing it on the street. The popularity of the drug in terms of the findings of the study shows that there are many users of cocaine. In the image above, it is clear that cocaine (a stimulant drug) makes up one of the biggest categories of available drugs.

The study found that along with cocaine being the most popular drug, it shares this position with ecstasy. From the data collected, five out the eight respondents stated that ecstasy would most likely be purchased online. Cocaine and ecstasy are therefore seen as the two drugs that are most likely to be purchased via cyberspace drug markets. One response from the data indicated that ecstasy along with cocaine are two of the drugs that are always in demand. As seen in the image above, ecstasy has a category of its own because of its size and popularity. Ecstasy falls into the category of a stimulant drug; however, the fact that it has its own category suggest that it may be more popular than cocaine, which falls into the category of stimulants. Kelly (2016) confirms that a powerful drug such as ecstasy is popular because it creates a feeling of bliss for the user. She adds that it is a popular dance drug that releases mood-altering chemicals in the brain, thus making it an enticing substance for many partygoers. Rowan (2015) explains that the effects of ecstasy are experienced roughly 30 minutes after it is ingested and the high lasts for about 2–3 hours, depending on the user.

The author explains that one dose is almost never enough for the user because once they begin to experience the mood of bliss accompanied with alterations in their senses (louder music, brighter lights and a spike in energy), they want more so that they do not have to come back to "reality", especially in Durban where many people experience a great deal of stress for various reasons (lack of employment and/or family problems, for example).

Merton explains in the Strain Theory that in cases such as this (whereby an individual is trying to escape reality to avoid further stress), individuals tend to stray from the norm of being the perfect member of society because they have found an output or way to deal with their frustrations. In Durban, this is often through the use of drugs and excessive partying that individuals partake in so as to forget their "reality".

The findings of this study revealed that drugs such as marijuana, mandrax and crystal meth were amongst those that are most likely to be sold via cyberspace. Surprisingly, the study found cocaine and ecstasy to be a more common answer from the respondents than marijuana regarding which drugs were most likely to be trafficked online. This could be due to the vast amount of marijuana drug dealers that Durban currently has or it could be that marijuana is readily available in large amounts, whereas cocaine and ecstasy prove to be a little more difficult to obtain in a bigger quantity. It was highlighted by a respondent that mandrax may be sold via cyberspace because it could be easier to conceal as this drug is a relatively small tablet. While this is a new finding for the study and was mentioned in regard to mandrax, it can also be applied to crystal meth (this drug is found in a powder form making it easy to conceal via post or courier). Roche et al (2015) added and confirmed this by stating that crystal meth is often found in the form of a powder but it is also found in the form of tablets that come in different shapes, colours and sizes. In cases where a different version of the drug is wanted, the user may turn to cyberspace as an alternative option (for example, if the user wants a certain size of the drug but can only find it in a powder form, they are likely to check online as to where they can obtain the exact type that they want). Drury (2018) confirms the finding that when a user cannot find the drug that they desire, they seek other methods to retrieve it, including from another country altogether.

He continues by suggesting that some countries manufacture a drug strongly and more purely, which means that less of the bulking agent is used and more of the original form of the drug is maintained (for example, some forms of cocaine contain 30% of the pure concentration and 70% of a bulking agent such as glucose. This is done to make more of the product so that more money can be made). Users turn to cyberspace dark net markets to purchase some of these drugs because they are offered safely (no interaction with the dealer), cheaper prices, no questions and authentic forms of the product.

In this study, the respondents were interviewed and asked which drugs they thought were most likely to be sold online and the responses were noteworthy. Hence, the researcher feels obliged to include the bar graph below (which is typically used in a quantitative study) as it provides a holistic perspective on the drugs that are most likely to be sold online. The bar graph displays the number of respondents (on the y-axis) and the drug that the respondent thought was most likely to be sold online (on the x-axis).

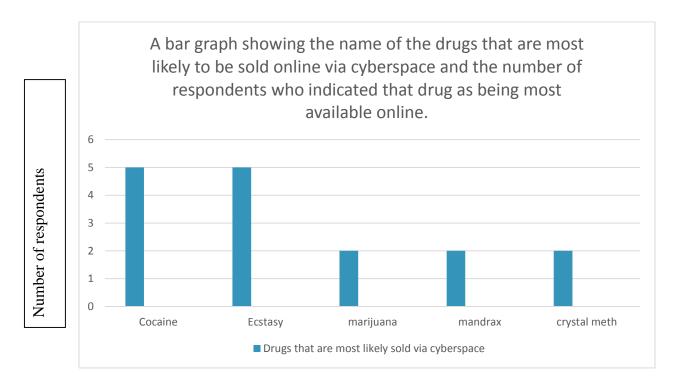


Figure 26: A bar graph showing the drugs that are most likely to be sold online.

Figure 26 above shows the name of the drugs that are most likely to be sold via cyberspace and the number of respondents who answered with that particular drug during the interview when questioned about which drug(s) they thought were most likely to be sold via cyberspace. The graph indicates cocaine and ecstasy as the two drugs that are most likely sold via cyberspace as five out of eight respondents provided that answer.

#### **6.3.** Conclusion

This chapter provided a discussion of the data that was collected. It revealed how cyberspace is used to traffic drugs; the beneficiaries of online drug trafficking; the laws and policies that South Africa has in place to combat online drug trafficking and, finally, it determined which drugs are most likely to be sold via cyberspace. The discussion provided a comprehensive discussion of the major issues that the researcher set out to discover in the beginning and also highlighted new findings. The chapter to follow is a conclusion of the study and will discuss each research question in detail, including recommendations based upon the findings of the study.

#### **CHAPTER 7: CONCLUSION AND RECOMMENDATIONS**

#### 7.1. Conclusion

This study focused on the use of cyberspace to traffic drugs in Durban, South Africa. The study consisted of four objectives which were as follows: to examine the use of cyberspace to traffic drugs in Durban, South Africa; to determine the beneficiaries of this particular crime; to investigate the laws and policies surrounding drug trafficking via cyberspace as well as how these are implemented, and to determine the various types of drugs that are sold via cyberspace.

This study made use of an exploratory research design with a qualitative approach. The researcher chose the exploratory research design because the study examined a new phenomenon which has not been clearly and thoroughly studied in Durban. The qualitative approach was selected to obtain thick and rich descriptions from the respondents. This approach assisted in providing in-depth information and understanding of the research issues and held the views of the selected sample (cybercrime officers from the South Africa Police Service) and their thoughts of drug trafficking via cyberspace.

The sample size selected for this study was initially ten respondents. However, upon arrival in the field, the researcher was only able to obtain eight respondents. This is due to the cybercrime division not having enough officers to supply for the interviews at the time for reasons that could not be disclosed to the researcher. The sampling technique that was chosen for this study is purposive sampling (non-probability sampling) whereby the researcher made the judgment in selecting the sample for the purpose of the study.

Data was collected through interviews in the field (primary data collection) and through the use of secondary sources such as books and articles. The research instrument for the primary data collection of this study was an interview schedule that contained questions relating to the objectives of the study as set out in Chapter one. Interviews were conducted one-on-one with each respondent, both scheduled and unscheduled. The interviews varied in time but did not exceed 30 minutes. For the use of secondary data, various books and articles and studies were used as well as journals and the World Wide Web. The use of primary and secondary data was imperative to the study as it provided first-hand but also comparable literature which aided the researcher in her findings and discussions throughout the study.

The data that was collected from the respondents were analysed using thematic content analysis. The researcher began by becoming familiar with the data and immersed into the findings. The individual interviews were transcribed and reviewed several times. Thereafter the researcher proceeded to identify themes or codes from the data which were significant and interesting regarding drug trafficking via cyberspace. The identified themes were then named, defined and analysed into an interpretable report. The report provided an analysis that addresses each research objective with the provision of empirical data.

The study made several findings, all of which were discussed in the previous chapter (see Chapter six: discussion of findings). However, the researcher wishes to provide a brief discussion here of the major findings of the study. One of the major findings was that cyberspace is used to traffic drugs in Durban by allowing individuals to use cyberspace as a platform to communicate with the added benefit of anonymity and encryption. With this, cybercriminals are able to discuss various aspects of their drug-trafficking enterprise (including prices, pick up locations and amount of drugs required) with ease and without being suspected of partaking in drug trafficking via cyberspace.

Another major finding was that although there are three separate laws relating to drugs and drug trafficking, none of these laws covered the aspect of cyberspace and drug trafficking under the same law. The study identified the Cybersecurity Bill, the Drugs and Drug Trafficking Act No. 140 of 1992 and the Medicines and Related Substances Act No. 90 of 1992. Each of the above-mentioned laws covered either cyberspace or drug trafficking but not drug trafficking using cyberspace.

Contrary to the literature that was found regarding the beneficiaries of drugs being available online, the study found that there are others who benefit from this crime and not just the youth. The researcher found that the drug user, the manufacturer and the seller all benefit from drug trafficking via cyberspace. The youth benefit by being able to purchase drugs without revealing their identity or age; the user is able to purchase any drug they desire in any amount without the risk of being robbed for the drugs or being attacked; the manufacturer is subject to an increased production of the drugs and therefore greater financial benefit and, lastly, the seller benefits as they are able to sell their product to any country in the world without being limited to their city or country.

The researcher found that there are three classes of drugs (A, B and C) and they are all available for sale on dark net marketplaces that are accessed using cyberspace. The study found that cocaine and ecstasy were the two drugs that are most likely to be available online, followed by marijuana, mandrax and crystal meth. These drugs are found to be popular among online buyers due to the fact that they may be risky to purchase on the streets, hence users finding it safer to purchase them online. The researcher found that drugs purchased online may prove to be purer, cheaper and of better quality than the drugs that are sold on the street. The section to follow discusses the challenges that the researcher faced in conducting this study.

This study contributes to the existing literature as it provides academic perspective on the legislature that South Africa has in place to combat cybercrime. It highlights that while these laws are sufficient they are also limited. This study helps to highlight that further work needs to be done on the Cybersecurity Bill and how online drug trafficking is dealt with. It also highlighted that drug trafficking was not listed as a cybercrime in the Cybersecurity Bill. The contribution made by this study aids legislature and policy makers in terms of aspects of cybercrime that they have not included.

### 7.2. Challenges experienced during the study

- 1. One of the major challenges faced during this study was the insufficient amount of literature that was available for drug trafficking via cyberspace in Durban. Statistics of drug trafficking via cyberspace in Durban were also limited.
- 2. The researcher had to travel to Pretoria to collect data and this was challenging as additional transport and accommodation arrangements had to be made. At the time of contacting SAPS to schedule dates and times for interviews, the researcher was told that Durban did not have a cybercrime unit hence the trip to Pretoria had to be done.
- 3. The researcher was not allowed to take any devices inside the building where the interviews were being held. This proved to be a challenge because each respondent had to be asked if they would record on their device and then send the file to the researcher after the interview was conducted. This was time-consuming as the researcher could only access the recorder outside the building, which was a distance from where the interviews were being conducted.

- 4. The researcher experienced a language barrier to some extent. There were instances whereby the respondent needed certain terms to be explained in IsiZulu and the researcher was not equipped for this. The researcher had to break down the questions greatly in order to ensure that the question was correctly understood.
- 5. The lack of officers being available from the cybercrime division proved to be a challenge. The researcher anticipated ten respondents and was only provided with eight. Due to this, the researcher had to adjust the sample size from ten to eight.

In the section to follow, the researcher will be addressing each research question that was set out in Chapter one.

#### 7.3. Research questions

The study consists of four research questions that the researcher will be answering below.

# 7.3.1. Research question one: How is cyberspace used as a tool to traffic drugs in Durban, South Africa?

The researcher found that cyberspace is used as a tool to traffic drugs in Durban, South Africa by providing cyberspace users with a platform to communicate with the added benefit of anonymity, confidentiality and encryption. With the aid of anonymity, users can portray any persona they wish to and enter dark net marketplaces even if they are underage. The use of anonymity as a gateway for individuals to conduct illegal activities such as online drug trafficking outweighs the user's decision to buy drugs from the street, thereby making cyberspace the most convenient tool to traffic drugs via cyberspace in Durban.

In addition to cyberspace providing anonymity and encryption on the internet, the researcher found that this makes it hard to track or trace cyberspace users. With the use of fake profiles and coded user names, profiles may be deleted or created at any time and at the convenience and leisure of the user. As a result, law enforcement officials have to work timelessly, without absolute guarantee, to find cybercriminals.

The researcher found that through the use of secure software such as VPNs and TOR, users are further protected. These highly secretive software assist cybercriminals to hide their crimes more easily as they are protected by layers of encryption.

Software such as VPNs and TOR create an immense amount of security over the internet, which the researcher found to aid in the development of dark net marketplaces.

The markets on the dark net can also be seen as a way in which cyberspace is used to traffic drugs in Durban. The markets on the dark net permit the sale of any drug or item that an individual may want. These underground markets provide users with the right amount of enticement to further reinforce them to use cyberspace to traffic drugs instead of the street dealers.

Cyberspace is a tool to traffic drugs in Durban because of the opportunity that cyberspace provides. Not only is it a network whereby users' meet sellers, but it is also a place whereby suppliers meet manufacturers and vice versa. Cyberspace allows individuals to network with each other, especially if it is to conduct illegal business such as drug trafficking. The researcher found that with cyberspace having several sellers and suppliers of the various drugs, the user is more like to pay less for the drugs online than they would on the street. In addition, the drugs may be purer, safer to attain and quicker to obtain than having to wait for the chance to meet a dealer.

Cyberspace allows drug dealers to advertise their product without the fear of being caught like traditional street dealers. In addition, traditional street dealers are unable to advertise a new product or cheaper price, but on the dark net, drug dealers are given the opportunity to advertise which helps in making more sales. The more that the seller advertises, the more money he/she is likely to make. Advertising via the dark net also proves to work in favour for the seller as he or she may attract new buyers or individuals who want to purchase certain drugs in bulk.

Cyberspace is used as a tool by allowing drug traffickers to make use of a 24-hour global service to increase their financial gains through the sale of the illegal drugs that are advertised on the platform. The internet provides various ways for drug traffickers to keep the drug trade alive despite the efforts of law enforcement. In the following section, the researcher answers the second research question.

## 7.3.2. Research question two: Who are the beneficiaries of drug trafficking via cyberspace in Durban, South Africa?

The researcher found that the youth are most vulnerable to drugs being available online. With cyberspace offering anonymity, the youth can take on any profile they wish to so that they can communicate with sellers to purchase the drugs they desire. They do not have to worry about being caught or attacked because the entire deal is done using an electronic device. The youth are almost always on their phones and computers. With the internet at the tip of their fingers, they are likely to be more enticed by drug trafficking via cyberspace instead of purchasing drugs on the street.

The researcher established that the supplier is a beneficiary of drugs being sold via cyberspace. This is because the supplier is not under as much risk as they would be if they were selling drugs on the street. They are protected by the internet and the security it provides. The seller is also able to sell drugs to a user anywhere in the world and at any time. With cyberspace operating non-stop, this means that drug trafficking will take place non-stop as well. The seller benefits by his client base growing from a national number to a global number of buyers which also results in an increase in their sales.

The researcher found that the manufacturer benefits from drug trafficking via cyberspace in Durban. The manufacturer can find the chemicals that they require to manufacture drugs through the use of dark net marketplaces. The chemical ingredients they need may be more easily available online than finding them elsewhere on the streets or from other dealers who may add a markup to the price of the chemical.

The researcher discovered that the drug user benefits from drugs being available via cyberspace in Durban. The users are able to get any drug they desire and at any time they wish. With the desired drug being available online, the user does not have to fear being attacked by dealers or charged a higher price for the drug. When the user purchases drugs online, they are charged at the price that they see the drugs are advertised for and they can do it safely behind their computer. The user may also purchase a specific drug that is available in another country without having to go there (for example, hashish from Afghanistan).

The user benefits greatly because they can buy from several sellers at the same time without facing the possibility of being attacked by the dealer (as he/she would if the drugs were being bought on the street). Drug trafficking via cyberspace is convenient for the user because it is safer, cheaper and unlimited with the added benefit of anonymity. In the following section, the researcher will be discussing the third research question of this study.

## 7.3.3. Research question three: What are some of the laws and policies that South Africa has in place to combat drug trafficking via cyberspace?

The researcher found that there is one specific law relating to cyberspace and two laws relating to drug trafficking. The Cybersecurity Bill deals with crimes such as hacking, ransomware, credit card theft and extortion but is limited in the sense that it does not cover drug trafficking via cyberspace. This piece of legislature has been presented in parliament but has not been enacted, thus the researcher could not provide any details on its implementation. When assessing drug trafficking via cyberspace it is important to note that the environment of the crime is completely different. Drug trafficking via cyberspace cannot be compared to drug trafficking on the streets. For this reason, it is necessary to have legislature that deals specifically with the trafficking of drugs via cyberspace.

The researcher found that there are two laws that deal with drug trafficking but without the inclusion of cyberspace. The Drug and Drug Trafficking Act No. 140 of 1992 and the Medicines and Related Substances Act No. 90 of 1992. The Drug and Drug Trafficking Act No. 140 of 1992 addresses that it is prohibited to use, possess or deal in drugs or substances which are deemed as illegal. Law enforcement makes use of this Act when dealing with drug-related cases irrespective of whether it takes place on the street or via cyberspace (especially since the Cybersecurity Bill has not been enacted in South Africa yet).

The Medicines and Related Substances Act No. 90 of 1992 states that it is illegal to abuse any medicine or related substance that may be harmful to the health of an individual. This act controls the abuse of all medicines in South Africa. It also acts against those individuals who forge prescriptions in order to obtain a high-scheduled drug such as a tranquilizer or an anti-depressant. The researcher found that this Act is a crucial aid in cases whereby individuals purchase prescription medication via dark net marketplaces.

It provides a level of specificity for law enforcement to better deal with cases where the substance is more a medicine than a drug (such as cocaine) but is still being abused.

The researcher found that despite three laws being sufficient in their own way (and to the best of the researcher's knowledge and research), there are no other laws that cover drug trafficking and cyberspace together under the same law. The laws that have been discussed in this study either cover cyberspace or drug trafficking but not both together under the same law, which is limiting in terms of law enforcement being able to accurately punish cybercriminals. In the section below, the researcher will be answering the final question of the study.

# 7.3.4. Research question four: What are the various drugs that are being sold via cyberspace in Durban, South Africa?

The researcher found that the dark net marketplaces (such as Silk Road, Agora and AlphaBay) provide any drug that a user may require. Furthermore, these sites offer certain forms of drugs in a purer form than what is available on the street as some of the sellers are from a different country to the user (for example, a South African citizen buying hashish from Afghanistan). The researcher found that the two most common drugs to be sold via cyberspace are cocaine and ecstasy. These drugs are extremely powerful and have the ability to make the user crave more as the usage increases. The researcher found that marijuana, mandrax and crystal meth were amongst the drugs that are available online. These drugs may differ in terms of popularity from cocaine and ecstasy but are nevertheless available for users online. There are several drugs that are available online but the drugs listed above were the ones that the researcher noted as those that were most likely to be purchased via cyberspace.

In the following section, the researcher provides recommendations based on the findings of the study.

#### 7.4. Recommendations

After considering the findings of the study, the following recommendations can be made:

• There is a need for law enforcement as well as government agencies to create a greater sense of awareness around the issue of cybercrime.

The public and community members need to be educated and informed about the dangers of the internet and what types of crimes take place using the internet. There should also be more conferences that cover cybercrime and the various branches of crimes that fall under this (such as drug trafficking). Students and cybercrime officials should all be invited to such conferences. If individuals are properly equipped, they will be less susceptible to being victims of cybercrime. Cybercriminals would also be weary after knowing that officers are receiving training on online drug trafficking and cybercrime as a whole.

- There needs to be a better relationship established between law enforcement and communities. Law enforcement should have informative drives in communities and build better relations with community members so that any important news or updates will be more readily received. This will help law enforcement to work better with the community to prevent drug trafficking via cyberspace in Durban.
- The provision of drug rehabilitation and awareness programmes need to be improved. The more that the topic of drugs is discussed, the better the chances of making people aware of what the dangers are. If there are rehabilitation centres that people are aware of then they may be more likely to make use of them.
- There needs to be a time where law and policy makers sit together and reconsider the Cybersecurity Bill and exactly what content it covers. The legislature that is responsible for the creation of this law needs to consider inserting a law that relates to drug trafficking so that law enforcement can prosecute online drug trafficking in the proper manner and not by using a law that relates to drug trafficking on the street. The law needs to be specific and inclusive of drug trafficking and cyberspace together.
- Officers need to be provided with extensive training on the topic of drug trafficking via cyberspace. They need to be trained on which laws apply to this cybercrime and how to use them. Law enforcement officers are at the forefront of crime in Durban and, if they are unaware of drug trafficking via cyberspace or how to prosecute the case, there will be difficulty in curbing this issue in our city.
- Internet Service Providers (ISPs) and law enforcement need to find a way to work together, whereby the ISP does not jeopardise their business but can also help to provide certain information that can assist law enforcement to apprehend cybercriminals.

With their help, it would be easier to curb cybercrime and online drug trafficking in Durban as officers will have legitimate information to work with instead of not knowing anything about the criminal or the crime that they are trying to capture or put an end to.

- The South African Police Service consists of several units and officers. However, there needs to be more availability of cybercrime units nationwide with an inclusion of several cybercrime officers employed into the unit. Furthermore, each of the major cities should have a cybercrime unit allocated to that area. By having one cybercrime unit to cover the grounds of an entire nation, there may be cybercrimes that are not dealt with fully. With this, officers will be exhausted with the workload of a nation thus limiting their overall concentration and performance. The provision of additional officers to cybercrime units in each major city in South Africa will help curb cybercrime and will ensure that cybercriminals are being promptly apprehended.
- Lastly and most importantly, there needs to be greater availability of information surrounding cybercrime and online drug trafficking. South Africa deploys several officers with the task of curbing drug traffickers and apprehending them. The statistics of these arrests and findings from those individuals who are caught drug trafficking need to be available to students and even the public so that further research can be conducted to aid law enforcement in the future. If there is a way to tell how drug trafficking is taking place then researchers will be able to find ways that will help officers with their cases that relate to cybercrime. If officers apprehend cybercriminals who are using the internet to traffic drugs, these statistics and this information should be provided separately from that of dealers on the street. This information allows for further research to be conducted, which will be useful to law enforcement in future cases that are drug related and include cyberspace.

## **Appendix One**



Name of the researcher: Trevonia Nihal

Cell: 0820612002; e-mail address: trevonianihal2707@gmail.com

Name of the supervisor: Mr Ephraim Kevin Sibanyoni

Cell: 0632276887; e-mail address: SibanyoniE@ukzn.ac.za

Department: Criminology and Forensic Studies

#### TO WHOM IT MAY CONCERN

### **Asking Permission to Conduct Research in the Institution**

I am a Master's student enrolled with the University of KwaZulu-Natal. I am conducting a study about the use of cyberspace to traffic drugs in Durban, South Africa. I am asking permission for this institution to allow its members to take part in this study because this study will aid in the development of solutions and strategies surrounding cybercrime and more particularly, drug trafficking via cyberspace. This study will enhance the current understanding of cybercrime that exists and will detail the severity of drug trafficking via cyberspace.

This study aims to explore how cyberspace is used as a tool to traffic drugs in Durban, South Africa; to determine the beneficiaries of this particular cybercrime; to investigate the laws and policies surrounding drug trafficking via cyberspace as well as how these laws and policies are implemented; and to determine the various types of drugs that are sold via cyberspace.

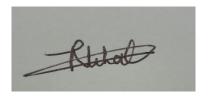
The information that will be provided by the members of the institution will be treated with confidentiality and anonymity.

The data collected will not be associated with any information of the member or identifier i.e. name, address or position. The data will be treated with confidentiality in a way that it will not be traced back to the respondent.

Your centre is extremely important to this research because it represents several others which are not part of the sample. The data that will be provided is valuable for both developing solutions to better deal with drug trafficking via cyberspace and for scientific research.

Kind regards,

Researcher: Miss Trevonia Nihal



Supervisor: Mr Ephraim Kevin Sibanyoni



\_\_\_\_\_

## **Appendix Two**

South Moun Felix Levie War Suit Affilhams Politichens

Provestopik Peninto Rog XS4

(0 (2) 393 2414

Yann reference Miye keysing:

My reference/My verwys-ngr 3/34/2

THE OURSION / DOMNISS TONESS RESERVING SOUTH APPICANT FOLICE SERVING PREPRINCA

Enquires/Novsee.

Lt Col Joubart Intern Thenga (012) 393 3118

191 ≦mail-

JoubertG@saps.gov.za

Ms T Nihal UNIVERSITY OF KWAZULU-NATAL

RE: PERMISSION TO CONDUCT RESEARCH IN SAPS: A CRIMINOLOGICAL EXAMINATION OF THE USE OF CYBERSPACE TO TRAFFIC DRUGS: MASTERS DEGREE: UNIVERSITY OF KWAZULU-NATAL: RESEARCHER: TINIHAL

The above subject matter refers.

You are hereby granted approval for your research study on the above mentioned topic in terms of National Instruction 1 of 2006.

Further arrangements regarding the research study may be made with the following office:

The National Head: Directorate for Priority Crime Investigation (DPCI)

Contact Person: Brig Basi

Contact Details: (012) 407 0502

Kindly adhere to paragraph 6 of our Atlached letter signed on the 2017-10-18 with the same above reference number.

DIVISIONAL COMMISSIONER: RESEARCH

DR BM ZULU

DATE: 2018/02/10

## **Appendix Three**



20 March 2018

Ms Treynola Mihal (213503014) School of Applied Human Sciences - Criminalogy Howard College Campus

Dear Ms Nihal

Protocol reference number: HSS/1639/017M Project Bille: A criminological examination of the use of Cyberspace to traffic drugs in Durban, South Africa

Full Approval - Expedited Application

In response to your application received on 1 September 2017, the Humanities & Social Sciences Research Ethics Committee has considered the applyementioned application and the protocol has 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

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. Thereofter Reconfification must be applied for on an annual basis.

Hake this apportunity of wishing you everything of the best with your study.

Yoursyfalchfully

Professor Shenuka Singh (Chair)

Humanities & Social Sciences Research Ethics Committee

/am

cc Supervisor: Mr E Sibanyoni.

co Academic Leader Research: Dr Jean Steyn

cc School Administrator: Mis Ayanda Ntulii

Humanities & Social Sciences Research Ethics Committee Professor Shenuka Singh (Chair) Westville Campus, Govan Mbeki Buikling

Postal Address: Private Bag X64001 Durban 4000

Tokephone: -27 (0) 31 260 3567/83504567 Facejedie +27 (0) 31 280 4906 Émail: <u>xinbautalukulususa</u>a / <u>snymenm@ukkh se za / pienunoSukh\* so ze</u>

Websits: www.char.ac.za

1914 - 2010 100 YEARS OF ACADEMIC EXCELLENCE.

Fountière Computers 📉 Edgewood 📻 Howard College 📜 Medical School 🕍 Pietgrangrightung 🐚 Weetville

## **Appendix Four**



#### Informed Consent Document

### Dear Participant,

My name is Trevonia Nihal. I am a Master's candidate studying at the University of KwaZulu-Natal, Howard College Campus. The title of my research is: A criminological examination of the use of cyberspace to traffic drugs in Durban, South Africa. The aim of the study is to examine the use of the World Wide Web to traffic drugs in Durban, South Africa as well as to determine an understanding of cybercrime and more specifically, drug trafficking. The study aims to determine the laws and policies surrounding online drug trafficking, the beneficiaries of the crime as well as the various drugs that are being sold online. The study aims to provide a comprehensive understanding of cybercrime and online drug trafficking in Durban, South Africa so that strategies and solutions may be developed to prevent further crimes from occurring via cyberspace. I am interested in interviewing you so as to share your experiences and observations on the subject matter.

#### Please note that:

- The information that you provide will be used for scholarly research only.
- Your participation is entirely voluntary. You have a choice to participate, not to participate or stop participating in the research. You will not be penalised for taking such an action.
- Your views in this interview will be presented anonymously. Neither your name nor identity will be disclosed in any form in the study.
- The interview will take about thirty (30) minutes.

The record as well as other items associated with the interview will be held in a

password-protected file accessible only to myself and my supervisors. After a period of

5 years, in line with the rules of the university, it will be disposed by shredding and burning.

If you agree to participate, please sign the declaration attached to this statement (a

separate sheet will be provided for signatures).

I can be contacted at: School of Social Sciences, University of KwaZulu-Natal, Howard

College Campus, Durban.

Email: trevonianihal2707@gmail.com

Cell: 0820612002

My supervisor is Mr Ephraim Kevin Sibanyoni, who is located at the School of Social

Sciences, Pietermaritzburg Campus of the University of KwaZulu-Natal.

Email: eksibanyoni@gmail.com

Phone number: 063 227 6887

The Humanities and Social Sciences Research Ethics Committee contact details are as

follows: Ms Phumelele Ximba, University of KwaZulu-Natal, Research Office.

Email: ximbap@ukzn.ac.za

Phone number +27312603587.

Thank you for your contribution to this research.

159

## **DECLARATION**

Ihereby confirm that I understand the contents of this do project, and I consent to participating in the research project.	cument and the nature of the research
I understand that I am at liberty to withdraw from the properties I understand the intention of the research. I hereby agree to	
I consent / do not consent to have this interview recorded (	(if applicable).
SIGNATURE OF PARTICIPANT	DATE

## **Appendix Five**



#### **Interview Schedule**

Age:

Number of years of experience:

Section A: this section deals with questions surrounding the term cyberspace, what we mean and understand by it as well as how it may be used to commit a crime such a drug trafficking.

- 1. What do you understand by the term cyberspace?
- 2. Do you think that a crime, such as drug trafficking, could be committed using cyberspace?
- 3. How do you think that cyberspace may be used as a tool to traffic drugs?
- 4. How does the use of cyberspace increase the trafficking of drugs?

Section B: this section entails questions pertaining to the laws and policies that South Africa has in place to combat drug trafficking via cyberspace.

- 1. The Cybersecurity Bill was presented in parliament in February 2017. What do you think that this means about South Africa's knowledge about the occurrence of cybercrimes?
- 2. Do you think that the current laws and policies that South Africa has in place are sufficient to combat and deal with cybercrimes such as drug trafficking?
- 3. How can South African laws and policies be improved to better combat cybercrimes?

Section C: this section deals with the various reasons that individuals resort to crimes such as drug trafficking.

1. In your opinion, do individuals resort to crimes such as drug trafficking because of certain strains or stressors in their lives?

- 2. Do you think that certain crimes, such as drug trafficking, would be reduced if individuals were all given the same resources to reach certain life goals such as education?
- 3. In your view, if harsher punishment were to be given to those individuals that traffic drugs, will this curb the problem of drug trafficking?

# Section D: this sections contains questions surrounding the beneficiaries of a cybercrime such as drug trafficking as well as the various types of drugs that are being sold online.

- 1. Which individuals benefit the most from drugs being available online?
- 2. Does the internet protect certain age groups by offering anonymity to its users?
- 3. Which drugs are most likely to be trafficked via cyberspace?

## Section E: this section has questions that relate to the interview.

- 1. Are there any questions that you are unclear about and would like to revisit?
- 2. Do you have any questions on the topic of online drug trafficking?