CHALLENGES INFLUENCING NARCOTIC DRUGS CONTROL BY POLICE OFFICERS AT JOMO KENYATTA INTERNATIONAL AIRPORT, NAIROBI

NDEGWA MARTIN (BA)

C159/CTY/PT/25596/2011

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTERS IN SECURITY MANAGEMENT AND POLICE STUDIES IN THE SCHOOL OF SECURITY, DIPLOMACY AND PEACE STUDIES OF KENYATTA UNIVERSITY.

2017

DECLARATION

This project is my original work and has not been presented for examination in any other university.

Signature…… Date……...

Ndegwa Martin

C159/CTY/PT/25596/2011

This project has been submitted for examination with my approval as university supervisor.

Signature…… Date…….

Dr Justus O.S. Osero

Department of community health

DEDICATION

This research project is dedicated to my family for their patience, support and encouragement throughout my study period. Their understanding and contribution gave me comfort throughout the period of my study.

ACKNOWLEDGEMENT

I acknowledge my advisor Dr Justus O. S. Osero for the continued support of my Masters study and for his patience, motivation, knowledge and support without which it would not have been possible to conduct this research.

I am proudly indebted to Kenyatta University for according me the opportunity to and facilities; the lecturers for their training, library staff for their support, and my fellow classmates who have greatly contributed to the success of this study from conceptualization to completion. God bless the institution and individuals abundantly.

TABLE OF CONTENTS

LIST OF FIGURES

ABBREVIATION AND ACRONYMS

ANOVA	Analysis of Variance
ANU	Anti-Narcotics Police Unit
CID	Criminal Investigations Department
DCIO	Division Criminal Investigation Officer
DEA	Drug Enforcement Agency
DOD	Department of Defence
FCIO	Formation Criminal Investigation Officer
INCSR	International Narcotics Control Strategy
JKIA	Jomo Kenyatta International Airport
NACADA	National Authority for the Campaign against Drugs and Alcohol
NPD	Nairobi Police Division
NPS	National Police Service
RDT	Resource Dependency Theory
TTF	Task Technology Fit
UCB	United States Census Bureau
UNODC	United Nations Office on Drugs and Crime
USA	United States of America

OPERATIONAL DEFINITION OF TERMS

Organizational Resource Capacity is the method used by police to secure the flow of resources e.g. information, budgets and status (Stevens, 2009).

Legal and Regulatory Framework is the command and control strategy that regulates the sale, distribution, use and possession of illicit drugs (Ritter, 2009).

Drug Courier Profiling is the use of abstract indicators relating to physical features, appearance or behaviour (such as ethnicity, manner of dress, frequented locations), which form the basis for law enforcement action (such as stop and search, arrest and refusal of access to certain areas) (European Union Agency for Fundamental Rights, 2010).

Information Technology is the advanced use of information/technology to predict and prevent crime (Police Executive Research Forum, 2012).

Drug Law Enforcement is the function of obtaining formal compliance by reducing the impact of drugs such as crime, illness, injury and death which involves police who interact with those selling or distributing and activities related to importing and exporting of illicit drugs (Willis, Anderson, & Hommel, 2011).

Drug Control is a continuum of events focused on interrupting illegal drugs smuggled by air, sea, or land. Normally consists of several phases – cueing, detection, sorting, monitoring, interception, handover, disruption, endgame, and apprehension – some which may occur simultaneously ((DOD, 2010).

Narcotic Drug a drug subject to restriction and intercepted by ANU as specified in the First and Second Schedule of " the Narcotic Drugs and Psychotropic Substances

(Control) Act, 1994" or anything that contains any substance specified in that Schedule (Govenment of Kenya, 2012).

Social-Demographic Characteristics is the statistical expression of the study population in terms of age, gender, job experience, and education level.

ABSTRACT

Narcotic drugs control is a continuum of events focused on interrupting illegal drugs smuggled by air, sea, or land. Normally consists of several phases – cueing, detection, sorting, monitoring, interception, handover, disruption, endgame, and apprehension – some which may occur simultaneously. The study assessed the challenges influencing narcotic drugs control by police officers at Jomo Kenyatta International Airport, Nairobi. The study adopted a descriptive survey design that targeted 138 police officers working at the airport who were proportionately stratified according to their operative unit. Data pertinent to the study was gathered using structured questionnaires with closed-ended questions from 3rd February 2017 to 3rd March 2017 with strict ethical confidentiality maintained. Data collected was analysed using descriptive statistics and a linear regression model was used to assess the challenges that influence narcotic drugs control indicating a good level of prediction (R^2= .898). The study found that the narcotic drugs seized at JKIA were heroin, cocaine, cannabis, methamphetamine, and ephedrine with no apparent seizure trends identified. The study found no relationship between a police officer's gender ($X^2(3) = 2.958, p = .398$), age ($X^2(9) = 12.286, p = .198$), job experience years($X^2(12) = 11.738, p = .467$), education level ($X^2(6) = 2.984, p = .811$) and narcotic drugs control. The study found a significant positive influence of organisation resource capacity on narcotic drugs control ($t(68) = 16.925, p = .000$ at 95% level of confidence). There was no statistically significant influence of the legal and regulatory framework ($t(68) = -.411, p = .683$), information technology ($t(68) = .585, p = .561$) and drug courier profiling ($t(68) = -.381, p = .705$). The study recommends utilisation of data by the National Police Service (NPS) to justify the need for more resources to enhance narcotic drugs control, continuous on the job trainings for NPS police officers on the legal and regulatory framework(s) utilised when performing their duties, using predictive policing technology at JKIA by the NPS to cover ground for the few resources, and creating a review process to measure the effectiveness of the NPS institutionalised training regimes.

CHAPTER ONE: INTRODUCTION

1.1 Introduction and Background of the Study

Law enforcement is society's formal attempt to obtain compliance to the established rules, regulations, and laws of the same society. It is a vital attempt to prevent social disorder and chaos. It is one means of formally supervising human behaviour to ensure that laws and regulations of a society are followed and that there is a certain amount of security and stability in society. This enforcement is legally authorised by the concept of police powers, which is a government's lawful authority to enact regulations and laws related to health, safety, welfare and morals (Conser, Paynich, & Gingerich, 2013). This concept of law enforcement encompasses all levels of the executive branch of government including agencies that administrate codes and regulations and criminal laws related to the health, safety and welfare of the people. Policing on the other hand is the subset of law enforcement that applies to the process regulating the general health, safety, welfare, and morals of society as it relates to criminal behaviour (Conser et al., 2013). This includes the prevention, detection investigation and prosecution of crime.

Drug law enforcement is the function of obtaining formal compliance by reducing the impact of drugs such as crime, illness, injury and death (Willis, Anderson, & Hommel, 2011). It is a range of activities on a long spectrum with the most basic level being police who interact with people using drugs. The next levels are police who interact with those selling or distributing and activities related to importing and exporting and involve customs officials and intelligence agencies. These are overlaid by a plethora of law enforcement activities that involve courts, prosecutors, magistrates and judges, prisons and parole workers' volunteers and other stakeholders (Graycar, McGregor, & Makkai, 2001). Further, different law

enforcement intervention strategies are appropriate for different user groups- there is a group involved in the use and possession of drugs but are not engaged in any other criminal activity, there is a group composed of people who use drugs and commit crime either to finance their drug habit or when under the influence of drugs, there is a group that use drugs and commits crime but their activities are not causally related, and finally there is a group involved in selling/ producing/ trafficking drugs which is relatively small but with greater ramifications across the community. From a law enforcement perspective, the group involved in selling/ producing/ trafficking drugs is challenging because considerable resources are required to identify, monitor and prosecute this group. The group individuals are characterised by strong family and ethnic ties that are difficult for law enforcement personnel to penetrate (Graycar et al., 2001).

Drug trafficking is a global illicit trade involving the cultivation, manufacture, distribution, and sale of substances which are subject to drug prohibition laws (UNODC, 2016). The global illegal drug trade is massive in scope with sweeping consequences for the developed and developing world (Kenya included), by generating revenue for entrenched organized criminal groups which undermines cornerstone institutions, corrupts law enforcement, infiltrates the financial sector, and further complicates issues of national security (Fritsvold, 2015). This global trade involves drug producing countries and drug transit countries. This study sought to assess the challenges influencing narcotic drugs control in Kenya as a transit country specifically using JKIA as a case study.

Globally, drug trafficking globally is guided by three major international drug control treaties, the Single Convention on Narcotic Drugs of 1961 (as amended in 1972), the Convention on Psychotropic Substances of 1971, and the United Nations

Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, which are mutually supportive and complementary (UNODC, 2016). The conventions attribute important functions to the Commission on Narcotic Drugs for policy making and to the International Narcotics Control Board for the monitoring and implementation of the conventions. Further, countries have their local laws and regulation against drug trafficking.

The United States remains the largest consumer of illicit drugs and an increasing establishment of Europe as a hub in the global market for illicit drugs. The primary source of the world's opium has largely relocated from the Golden Triangle in Southeast Asia to Afghanistan and the Golden Crescent. Colombia, Peru, Bolivia, and other traditional coca-cultivating countries in South America continue to produce the lion's share of the world's cocaine. Colombia remains a leader in the production of cocaine, although the power of the Colombian drug cartels has decreased in recent decades with Mexican drug trafficking organizations (originally subcontracted by Colombian cartels) emerging as, potentially, the dominant force in the drug economy of the new millennium (Fritsvold, 2015).

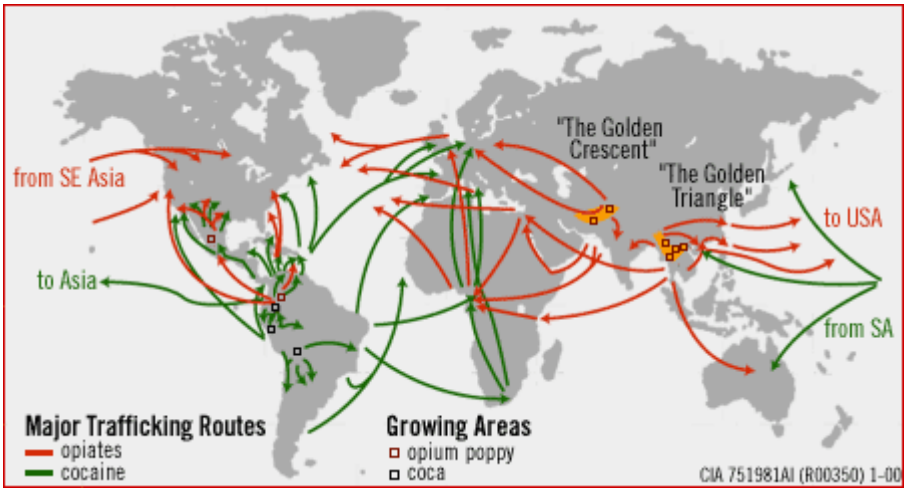

Figure 1-1: Major World Drug Trafficking Routes (UNODC, 2016)

Africa has historically held a peripheral role in the transnational illicit drugs trade, but in recent years, it is has increasingly become a locus for drug trafficking (Wyler & Cook, 2009). Kenya has emerged a significant transit country for a variety of illicit drugs, including Southwest Asian heroin and South American cocaine (INCSR, 2015). It is a smuggling conduit for moving heroin from Southwest Asia and South American cocaine for further transhipment around the globe (International Narcotics Control Board (INCB), 2008). Southwest Asian heroin is transported in multi-hundred-kilogram quantities by small oceangoing vehicles called dhows across the Indian Ocean to the Kenyan coastline. Once in Kenya, it is distributed to retail markets and user populations across Africa, Europe and North America. South American cocaine is brought into Kenya by commercial air couriers arriving on international flights to Nairobi for further distribution to other African locations and Europe (UNODC, 2015; INCSR, 2015).

Drug law enforcement in Kenya is guided by The Kenya Narcotic Drugs and Psychotropic Substances (Control) Act No. 4 of 1994 that was revised in 2012. This was enacted as implementation of the 1988 UN Convention. The law covers drug cultivation, possession, trafficking, forfeiture of assets and proceeds, money laundering, rehabilitation, international assistance, and conspiracy. Kenya acceded to the 1988 UN convention in 1992. It is a party to the 1961 UN Single Convention and the 1972 Protocol thereto, but does not have any formal counter-narcotic or extradition agreements with any government (INCSR, 2015).

To achieve this, The Kenya Police Anti-Narcotics Unit (ANU) was formed in 1983 within the Criminal Investigations Department (CID) and charged with fighting drug trafficking and related crimes. The ANU's terms of reference are; investigating drug offences, detecting and seizing of illicit drugs, apprehending and prosecuting drug

offenders, gathering, analysing and disseminating drug-related intelligence, maintaining a database on drug-related cases, and Liaising with local and international drug enforcement agencies (NACADA, 2016). The drug control efforts are supported by other police officers located at JKIA.

1.2 Statement of the Problem

The government of Kenya, through the National Police Service, envisions to have a drug free society by enforcement of the Narcotics and psychotropic substances Control Act No. 4 of 1994. With JKIA being a major transit hub, 70% of the ANU team and activities are carried out from here in support of this vision.

However, the Kenya government enforcement agencies have been unable to stem the flow of drugs through Kenya (INCSR, 2015) and JKIA in particular. Cases of arrests of persons passing through JKIA have been documented in Athens (Ekathimerini, 2013), Hong Kong (Some, 2012; Ombati, 2016), Rome (Ombati, 2010) and Macau (Wotherspoon, 2013) implying incidences of missed arrests by officers based at JKIA. With only a tiny fraction of drugs believed to transit in and through JKIA being seized by authorities, the Anti-Narcotics Police Unit asserts facing challenges to more effective law enforcement and hence drug control (INCSR, 2015).

Should the challenges persist then the notorious transit hub that JKIA has become will impede the achievement of this vision. Due to lack of literature in this area, need therefore arises to assess the challenges influencing narcotic drugs control by police officers at JKIA and their relationship to the officers' socio-demographic characteristics.

1.3 Justification of the Study

In recent years, drug trafficking has become a major development challenge in Kenya. This deserves not only the attention of the Kenya government and law

enforcement institutions but also concerns corporate organizations and individuals to find a lasting solution. This is because, it provides revenue for entrenched organized criminal groups which undermine cornerstone institutions, corrupt law enforcement, infiltrate the financial sector, and complicate national security. This study sought to assess the challenges influencing narcotic drugs control and may result in the formulation of important principles of knowledge and solutions to this significant problem. Despite the immensity of the issue and the notoriety label of JKIA as a major transit hub, very little research on challenges influencing narcotic drugs control have been carried out by scholars. This study will serve as a reference point to JKIA as far as challenges to narcotic drugs control is concerned. In this case, it highlights the challenges influencing narcotic drugs control, contributes to the existing body of knowledge on narcotic drugs control and stimulates further research on the subject in other areas.

1.4 Research Objectives

1.4.1 General Objective

The main objective of this study was to assess the challenges influencing narcotic drugs control by police officers at Jomo Kenyatta International Airport, Nairobi.

1.4.2 Specific Objectives

1. To explore the relationship between the socio-demographic characteristics of police officers and narcotic drugs control by police officers at JKIA.
2. To determine the influence of organisational resources capacity of the National Police Service on narcotic drugs control by police officers at JKIA.
3. To find out the extent to which the Kenyan legal and regulatory framework influences narcotic drugs control by police officers at JKIA.
4. To investigate the influence of Information Technology access on narcotic drugs control by police officers at JKIA.

5. To establish the influence of drug courier profiling on narcotic drugs control by police officers at JKIA.

1.5 Research Questions

1. What is the relationship between the socio-demographic characteristics of police officers and narcotic drugs control by police officers at JKIA?
2. How does the organisational resources capacity of the National Police Service influence narcotic drugs control by police officers at JKIA?
3. To what extent does the Kenyan legal and regulatory framework influence narcotic drugs control by police officers at JKIA?
4. Does Information Technology access influence narcotic drugs control by police officers at JKIA?
5. What is the influence of drug courier profiling on narcotic drugs control efforts by police officers at JKIA?

1.6 Significance and Anticipated Output

The study findings will be important to police officers since it will address critical challenges that influence narcotic drugs control at JKIA. This will contribute to a greater understanding on the various challenges they encounter when trying to control entry, transit and trafficking of narcotic drugs at the airport. This help them propose better guidelines and approaches to proactively counter challenges the face in controlling drug trafficking.

The study finding will be of value to policy makers and government as it will bring to light various policies that are detrimental to narcotic drugs control and address this issue according to the research recommendations.

The global community will derive value from a greater understanding of first line challenges to narcotic drugs control at a major transit hub. This will be vital and will encourage targeted contribution to the address of these challenges by global players involved in the control of narcotic drugs.

Researchers and scholars will gain both theoretical and practical experience on the challenges influencing the control of narcotic drugs in Kenya.

1.7 Limitations of the Study

The main limitation in this study was that most police officers were sceptical about sharing information about challenges they face at work as they considered it a loss of tactical advantage over the 'enemy'. The study however overcame the limitation by having a letter of introduction from the university and a permit from the National Commission for Science Technology and Innovation to assure the respondents that the information provided would be used for academic purpose, was authorised by a constitutional body and as such would be treated with confidentiality.

1.8 Delimitation of the Study

The study focused on the challenges influencing narcotic drugs control by police officers. The study concentrated on first line narcotic drugs control at Jomo Kenyatta International Airport in Nairobi which is prone to transit drugs from abroad and within as a conduit to different global destinations. The study used five-year (2011-2015) narcotic drugs seizure data to represent narcotic drugs control at the airport. The study was undertaken to research on activities within the scope of the issues addressed by the research objectives.

The study did not include the plethora of law enforcement activities involving courts, prosecutors, magistrates, judges and prisons that overlay the first line and most basic of narcotic drugs control of arrests and seizures. The reason being that the linear

pipeline feed type of relationship between these agencies depend on the outcome of the police officers' work.

1.9 Conceptual Framework

Mugenda (2008) defines conceptual framework as a concise description of the phenomenon under study accompanied by a graphical or visual depiction of the major variables of the study. According to Mugenda and Mugenda (2003), it is a diagrammatical representation that shows the relationship between dependent and independent variables. In this study, the conceptual framework was developed from the objectives of the study and looked at the relationship between challenges faced by police officers and narcotic drugs control. The arrows indicate effect with the independent variable having an effect on the dependent variable (direction of interaction with the direction indicating influence) and thus provided context for interpreting the study findings.

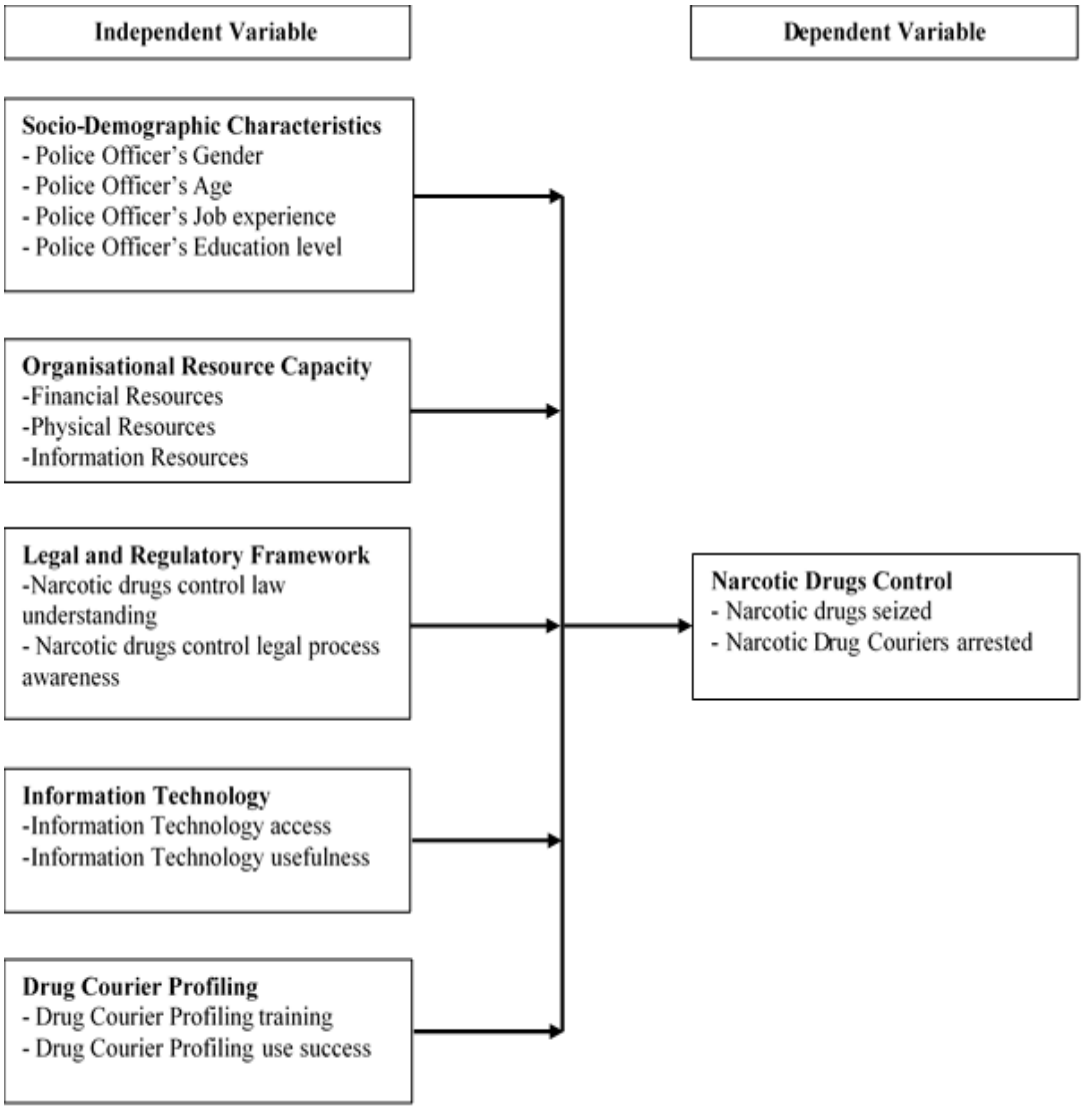

Figure 1-2: Conceptual Framework

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviews theoretical and empirical literature that are suitable to answer the research questions of this study. The chapter starts by discussing the main theories that this study relies on to build the framework for the research. This chapter also covers the empirical review on narcotic drugs control. A critical review of literature and the research gaps are also presented.

2.2 Theoretical Review

The theoretical review is the presentation of a specific theory and empirical and conceptual work about that theory (Rocco & Plakhotnik, 2009). While according to Swanson and Chermack (2013), a theory describes a specific realm of knowledge and explains how it works. As such, they are formulated to explain, predict and understand phenomena and in many cases, to challenge and extend existing knowledge within the limits of critical bounding assumptions. This study was based on the resource dependency theory, the regulatory theory, institutional theory and task-technology fit theory. The theories were based on previous studies that had based each of the challenges identified in the objectives to each of the below theories. Therefore, the study found need to ground the basis of each challenge on the independently developed theories.

2.2.1 Resource Dependency Theory

It was developed by Pfeffer and Salancik (1978) as they tried to study how the external resources of organizations affect the behavior of the organization. They argue that resource dependence theory (RDT) has implications regarding the optimal divisional structure of organizations, recruitment of board members and employees, production strategies, contract structure, external organizational links, and many other aspects of organizational strategy. In the police, RDT is essentially a theory of

power and politics, including the methods used by police to secure the flow of resources e.g. information, budgets and status (Stevens, 2009). According to McCarty, Ren, and Zhao (2012), that the number of police officers is contingent on the amount of available financial resources within an organisation.

Accordingly, RDT in the police department operates on the available resources for funding with problems related to drugs. It focuses on structures and behaviors that sustain the flow of resources independent of the rational need. In this case, police departments are likely to create specialized units because resources are available from the state and federal government even though they may not have the designated crime problem (Lombardo & Olson, 2009). Conversely, budget constraints have a detrimental effect (Burruss, Schafer, Giblin, & Haynes, 2012). Thus, an understanding of the resources available to police officers and their perceptions on their access affect their individual behaviour in overcoming work related challenges irrespective of the rational need.

This instigated the first research question; How does the organisational resources capacity of the National Police Service influence narcotic drugs control by police officers at JKIA?

2.2.2 Regulatory Theory

Regulatory theory was developed by Grabosky and Braithwaite (1986) as they tried to look at enforcement strategies of Australian business regulation agencies through the lens of the Marxist economic theory. Its application has spanned tax law, criminal justice interventions, occupational health, and safety and policing and security. The application of regulatory theory to the problem of illicit drugs has generally been thought about only in terms of ‘command and control’. The international treaties governing global illicit drug control and the use of law enforcement to dissuade and

punish offenders have been the primary strategies (Ritter, 2009). The regulatory approach is governed by regulatory regimes. Drug regulatory regimes are enforceable legal structures of regulation. They create and reinforce distinct belief systems, governing principles and ideologies (Paul-Emile, 2010). Further, the governing principles that structure each regime are assumption of risk and rational choice principles in the market regime, disclosure principles in the public health regime, and moral principles in the criminal regulatory regime. According to Paul-Emile (2010), the criminal drug regulatory regime focuses on the investigation, interdiction, arrest, prosecution and incarceration of those involved with illicit drug consumption, distribution, trafficking, and manufacture with the goal of punishing those who have transgressed the boundaries of civilized society. The sale, distribution, use and possession of illicit drugs are illegal—thus the regulation of illicit drugs is a 'command and control' strategy (Ritter, 2009). Ritter, (2009) further argues that 'persuasion' and 'command and control' strategies alone as applied by drug laws leave the regulatory approaches significantly limited. Instead, she explored the application of two other approaches – self-regulation and market regulation to illicit drugs. Disregarding the two approaches and focus on the current prism of 'command and control' strategy as envisioned in Kenya through the Narcotic and Psychotropic Substance Act (1994), the police officers' understanding of the act itself renders investigation on the confidence of the officer's application of the strategy.

This model instigated research question two; To what extent does the Kenyan legal and regulatory framework influence narcotic drugs control by police officers at JKIA?

2.2.3 Task-Technology Fit Model

Task-technology fit (TTF) theory as developed by Goodhue and Thompson (1995) holds that Information Technology (IT) is more likely to have a positive impact on individual performance and be used if the capabilities of the IT match the tasks that the user must perform. The core structure of a TTF model is the matching of the capabilities of the technology with the demands of the task. TTF theory has four basic factors that affect the performance of individuals. These are first, task characteristics and second, technology characteristics, which together affect the third factor Task-Technology Fit, which in turn affects the outcome factors, either performance or utilization. The model hypothesizes that individual abilities also affect the process of TTF (Yalcinkaya, 2007). Thus, the impact of technology on policing is dependent on its access and how it (technology) interacts with existing cultural values, management styles, work practices and technical capabilities (Chan, Brereton, Legosz, & Doran, 2001). In light of these factors, do the police officers at JKIA have access to information technology that aids in narcotic drugs?

The curiosity around this theory led to research question three; Does Information Technology access influence narcotic drugs control by police officers at JKIA?

2.2.4 Institutional Theory

Institutional theory was developed by Scott (2004) and is a theory on the deeper and more resilient aspects of social structure. It considers the processes by which structures, including schemes, rules, norms, and routines, become established as authoritative guidelines for social behaviour. Institutional theory, like resource dependency theory, argues that the structure and activities of an organization do not always reflect rational adaptations to environmental problems. Institutional theorists believe that the structure and activities of an organization reflect the values and beliefs of powerful actors called sovereigns (mayors, council members, special

interest groups), who have the ability to influence the policies of the organization. As such, institutional theory would argue that the establishment of a police drug unit could have more to do with the fact that police departments are expected to have a drug enforcement unit than the actual extent of the drug abuse problem in a community (Lombardo & Olson, 2009). This institutional perspective has also been used to explain departmental policies of profiling. Specifically, the myth of the effectiveness of racial profiles to control serious crime and drug trafficking is incorporated into the structure and activities of police departments. Because departments are initially rewarded for being “tough on crime” or waging “the war on drugs,” the activities associated with tactics of targeting particular types of citizens become institutionalized (Engel, Calnon, & Bernard, 2002). The "drug courier profile" has been defined as an investigative tool used by Drug Enforcement Agency ("DEA") agents to identify and to apprehend drug couriers (Kadish, 1997) and as such, the support offered by DEA triggered the quest on the adaptation of ‘their’ drug courier profiling norms through this prism and its influence to successful narcotic drugs control.

This instigated research question four; What is the influence of drug courier profiling on narcotic drugs control efforts by police officers at JKIA?

2.3 Empirical Review

2.3.1 Organisational Resource Capacity

Omeje and Githigaro (2012), found that transport deficiencies, human resource capacity deficits, poor terms and conditions of service and budgetary deficits as some of the resource challenges facing the Kenyan Police Service. In their study, Benson and Rasmussen (1991) found that the realloction of resources to drug law

enforcement activities led to reduced deterrence for property crime; as a result, such crime increased implying the resource dependent nature of law enforcement.

2.3.2 Legal and Regulatory Framework

The spread of HIV/AIDS among injecting drug users, the overcrowding of prisons, the reluctance of South America to remain a theatre for military anti-drug operations, and the ineffectiveness of repressive anti-drug efforts to reduce the illicit market have all contributed to the global erosion of support for the United States-style war on drugs (Jelsma, 2011). Further, there is marked consensus on the failure of criminalisation adopted by drugs laws on reduced drug activity, rather the converse is true. Drug activity has increased. Some of the consequences resulting from the escalation of the last two decades were a nearly worldwide rapid increase in the prison population; human rights violations; restricted access to essential medicines; criminalisation of users creating obstacles for health care, including strategies for HIV/AIDS prevention. Interestingly, Werb, Rowel, Guyatt, Kerr, Montaner, and Wood (2011) found that an increase in drug law enforcement interventions to disrupt drug markets is unlikely to reduce drug market violence. Instead, it contributes to gun violence and high homicide rates and that increasingly sophisticated methods of disrupting organizations involved in drug distribution could paradoxically increase violence. In their study on impact of decriminalisation of illicit drugs in Portugal, Hughes and Stevens (2010), found that it reduced the burden of drug law enforcement on the criminal justice system, while also reducing problematic drug use.

2.3.3 Technology

Byrne and Marx (2011) found that risk prediction technology, as in the case of profiling, may be statistically accurate across many cases. In their survey in the United States, Police Executive Research Forum (2012) showed widespread use of

many technologies. For instance, seventy per cent of the responding agencies said they already use some form of predictive policing, which was defined as "the advanced use of information/technology to predict and prevent crime" with a further 90 per cent of the departments said they plan to increase. In their study, Schwabe, Davis, and Jackson (2001) found that technology can also be the economical way to fight crime. Since policing is both labor intensive and expensive, technology can represent an important way to leverage and magnify investments made in human resources and act as a "force multiplier." In 2013, Kumbuti's study established that Kenya police force has not adopted latest technological advancements in crime prevention. Kenya police force hardly used soft technologies which enable strategic use of information to prevent crime.

2.3.4 Drug Courier Profiling

Criminal profiling is the use of abstract indicators relating to physical features, appearance or behaviour (such as ethnicity, manner of dress, frequented locations), which form the basis for law enforcement action (such as stop and search, arrest and refusal of access to certain areas) (European Union Agency for Fundamental Rights, 2010). From their experiment, Holt, Kydd, Razzolini, and Sheremeta (2013) concluded that profiling is rational and the government should actually screen individuals according to their potential to be reliable recruits for the terroristic organization. In their 2 phase meta-analysis, Snook, Eastwood , Gendreau, Goggin, and Curren (2007) first meta-analysis found that self-labelled profiler/experienced-investigator groups did not outperform comparison groups in predicting offenders' cognitive processes, physical attributes, offense behaviours, or social habits and history, although they were marginally better at predicting overall offender characteristics. The 2nd meta-analysis indicated that self-labelled profilers were not significantly better at predicting offense behaviours, but outperformed comparison

groups when predicting overall offender characteristics, cognitive processes, physical attributes, and social history and habits.

2.4 Critique of Literature

Omeje and Githigaro (2012), studied the challenges facing state policing in Kenya through analysing the transition from state policing to multi-choice policing in Kenya, including its underlying structural and empirical impediments, externalities, challenges, and opportunities. However, the study did not look at the challenges influencing narcotic drugs control.

Kumbuti (2013) studied the use of technology as a strategy by Kenya Police in detection of crimes in Nairobi City and found lower uptake by the force of soft technology. Her key finding was that Kenya police use personal mobile phones and walkie-talkies as the main communication equipment in crime prevention. However, this study was on general crime and given the sophistication of drug crimes, the narcotic drug control perspective is paramount.

2.5 Research Gaps

Drug trafficking possess a growing problem in Africa and Kenya in particular. Increasing flows of illicit drugs threaten good governance, peace and security, economic growth and public health. A first step to address this threat is to identify the challenges to narcotic drugs control. Many studies conducted in this line (Benson & Rasmussen, 1991; Byrne & Marx, 2011; Chan, Brereton, Legosz, & Doran, 2001; European Union Agency for Fundamental Rights, 2010; Jelsma, 2011; Kadish, 1997; Kumbuti, 2013; Yalcinkaya, 2007) have not narrowed down to the challenges of narcotic drugs control. This study seeks to fill this existing knowledge gap.

CHAPTER THREE: MATERIALS AND METHODS

3.1 Introduction

This chapter explains the methods the researcher used during the collection of the information. The following elements are highlighted: research design, variables of the study, location of the study, target population, sampling techniques, sample size determination, construction of research instruments, pre-test, validity, reliability and, data collection techniques.

3.2 Research Design

A descriptive cross-sectional research design was adopted for this study. Hoffman and Sandelands, (2005) define descriptive design as a method of collecting information by interviewing or administering a questionnaire to a sample of individuals. Again, it is restricted to observe, describe and document aspects of a situation as it naturally occurs (Zikmund, Babin, Carr, & Griffin, 2010). The choice of this design was appropriate for this study since it utilized a questionnaire as a tool of data collection and helped to describe and analyse challenges facing narcotic drugs control at JKIA, Kenya.

3.3 Variables of the Study

The dependent variable for this research was narcotic drugs control which was measured by the narcotic drugs seized and the number of narcotic drugs couriers arrested. There were five independent variables that influenced the dependent variable they were; the socio-demographic characteristics of the respondents, the organisational resources capacity, the legal and regulatory framework, information technology, and drug courier profiling. Survey questions were derived from the independent variables and helped to assess the challenges influencing the dependent variable.

3.4 Location of the Study

The study area covered JKIA in Nairobi County, Kenya. JKIA was chosen due to its strategic positioning as an air traffic connection hub in the East African region.

3.5 Target Population

All items under consideration in any field of inquiry constitute a 'universe' or 'population' (Kothari, 2004). The target population is the entire set of units for which the survey data are to be used to make inferences and defines those units for which the findings of the survey are meant to generalize (Cox, 2008). It is the complete collection of objects whose description is the major goal of the study (Ott & Longnecker, 2010). The police officer was the unit of measurement. The target population was police officers as a sub-unit of law enforcement agencies involved in the control of narcotic drugs.

3.6 Study Population

The study population consisted of police officers stationed at JKIA. The officers comprised of all ranks both senior officers and junior officers present at JKIA as shown in the Table 3.1. According to data from The National Police Service (2016), there are 144 Nairobi Police Division (NPD-JKIA) officers, 30 Divisional Criminal Investigation Officers (DCIOs), 17 Anti Narcotic Unit Officers and 20 Formation Criminal Investigation Officers (FCIOs). This made a total of 211 police officers. Therefore, the study targeted 211 police officers at JKIA. The study targeted this area because of their involvement in narcotic drugs control efforts.

Table 3-1: Summary of Study Population

Stratum	Study Population	Percentage
	Police Officers	**Percentage**
NPD- JKIA	144	68
DCIO- JKIA	30	14
FCIO-JKIA	20	10
ANU-JKIA	17	8
Total	**211**	**100**

Source: NPS, (2016)

3.7 Sampling Technique

The study adopted stratified random sampling technique from the identified sample in Table 3-1. Babbie (2010) states that stratified sampling is applicable if a population from which a sample is to be drawn does not constitute a homogeneous group. The list of respondents was sourced from the airport commander. The target population was divided into four strata of Nairobi Police Division, Divisional Criminal Investigation Officers', Formation Criminal Information officers and Anti-Narcotics Unit officers and random sampling applied proportionately to each stratum.

3.8 Sample size Determination

According to Kothari (2004) and Kerlinger (1986), a sample size of 10% of the target population is large enough as long as it allows for reliable data analysis and allows for significance of differences between estimates. Thus, using Slovin's formula: $n=N/ (1+Ne^2)$ as follows:

Where;

n=sample size

N=total population i.e. 211 officers

e=Error tolerance. The study confidence level was 95% giving a margin error of 0.05

Therefore; $n= 211/ (1+211*0.05^2) = 138.13$

n= 138

The sample size targeted was 138 officers.

To determine the sample size of each category of police officers at JKIA, proportionate stratified sampling was used as below;

Strata sample size (SSS) = Strata size * Sample size (n)/ population (N)

Table 3-2: Population and sample size from each stratum

Stratum	**Study Population**	**Strata Sample Size**
	Police Officers	**Frequency**
NPD- JKIA	144	94
DCIO- JKIA	30	20
FCIO-JKIA	20	13
ANU-JKIA	17	11
Total	**211**	**138**

3.9 Construction and Research Instruments

Data collection instrument refers to the device used to collect data, such as a paper or computer assisted interviewing system (UCB, 2010). They are methodologies used to identify information sources and collect information during an evaluation (OECD, 2002). This study collected both primary and secondary data.

Questionnaires were preferred because they were an effective data collection instrument that allowed the participants to give their opinion regarding the research problem. They (questionnaires) are free from bias and researcher's influence and thus accurate and valid data was collected. Questionnaire questions were derived from the conceptual framework, thus, connecting the conceptual framework to the police officer's assessment. Secondary data was gathered from past published scholarly articles and empirical information on narcotic drugs control.

3.10 Pilot Study and Pre-Testing

A pilot study was undertaken on 10 police officers from each strata based at JKIA to test the reliability and validity of the questionnaire. The rule of the thumb is that 1% of the sample should constitute the pilot test (Cooper & Schindler, 2011; Creswell, 2003) thus the undertaken was within the recommendation. The pilot test was an activity that assisted the researcher to determine if there were flaws, limitations, or other weaknesses within the interview design which allowed him to make necessary revisions prior to the implementation of the study.

3.10.1 Validity

Mugenda and Mugenda (2003) define validity as the accuracy and meaningfulness of inferences, which are based on research results. Content related validity was ensured in this study by conducting a pilot study on the data collection instrument on a portion of the target population. This was in an effort to assess the clarity of the

instrument items. Those found to be inadequate were discarded, modified or improved upon to improve the quality of the research instrument hence its validity.

3.10.2 Reliability

Reliability is the degree of consistency with which a measuring instrument measures whatever it is meant (Dempsey & Dempesey, 2000). Reliability was estimated using the most common internal consistency measure of Cronbach's Alpha with a cut off value of 0.7 for reliability of the measurement items. Cronbach's Alpha was used since the questionnaire consisted of multiple Likert questions. The scales indicated high level of internal consistency with the Cronbach's Alpha between 0.756 and 0.890.

3.11 Data Collection Techniques

Data collection took place for a period of four weeks from 3rd February 2017 to 3rd March 2017. The researcher pre-notified the potential participants of the intended survey. The participants were issued with the questionnaire that was presented together with a letter of introduction from the university and a permit to conduct the survey from the National Commission for Science, Technology and Innovation. The questionnaire was self-administered to enhance confidentiality since the pilot study revealed possible suspicious disposition of the study participants when interviewed by research assistants. Each questionnaire was coded and only the researcher knew which strata the respondent belonged. The coding technique was only used for the purpose of matching returned and/or completed questionnaires with the respondent's stratum.

3.12 Data Processing and Analysis

Immediately the data collection period ended, all returned questionnaires were compiled and assigned to their strata in preparation for the processing of data. Before processing the responses, data preparation was done on the completed questionnaires

by editing, coding, entering and cleaning the data. Quantitative data was transcript to software programme SPSS version 20 to enable further processing and analysis. Descriptive statistics was used to allow for a meaningful description of the challenges facing drug law enforcement in Kenya. Linear regression analysis was used to answer the research questions and draw inferences from the data acquired. Narcotic drugs control was regressed against the four challenges that influent it; organisation resource capacity, legal and regulatory framework, information technology, and drug courier profiling.

3.13 Ethical Considerations

The researcher sought authority to collect data from Kenyatta University and the National Commission for Science, Technology and Innovation. Equally, authority was sought from the Commandant- Kenya Airports Police Units and other section heads which allowed the researcher to gather the required data from the respondents in the division. The researcher adhered to the principle of voluntary participation where respondents were to participate and contribute freely. Confidentiality was considered and information provided by respondents was treated as confidential.

CHAPTER FOUR: RESULTS

4.1 Introduction

This chapter presents the empirical findings and results of the application of the variables using techniques mentioned in chapter three. Specifically, the data analysis was in line with specific objectives where patterns were investigated, interpreted and implications drawn on them.

4.2 Response Rate

A total of 138 questionnaires were distributed and 75 usable responses were received. This translated to 54% response rate.

4.3 Reliability Analysis

In order to understand whether the questions in the questionnaire all reliably measured the variables, a Cronbach's alpha was run on the sample size. Reliability of the constructs is shown in table 4.1 below.

Table 4-1: Reliability Test of Constructs

Construct	Reliability Cronbach's Alpha	Comments
Organisational Resource Capacity	0.794	Accepted
Legal and regulatory Framework	0.890	Accepted
Technology Utilisation	0.756	Accepted
Drug Courier Profiling	0.864	Accepted

4.4 Socio-Demographic Characteristics of the Participants

Consistent with prior research practices, the respondents were asked to provide demographic information, gender, age, job experience, and education level.

Table 4.2 shows that 44% of the respondents were female police officers while 56% of the respondents were male police officers.

Table 4-2: Frequency Distribution of Respondents by Gender (n=75)

Gender	Frequency	Percent
Male	42	56
Female	33	44
Total	75	100

Majority of the respondents were fairly young with 31% being in the 21-30 age group, 43% in the 31-40 age group, 23% in the 41-50 age group with only 3 % being in the 51-60 age group. This is indicated in table 4.3.

Table 4-3: Frequency Distribution of Respondents by Age (n=75)

Age Bracket (Years)	Frequency	Percent
21-30	23	31
31-40	32	43
41-50	17	23
51-60	3	4
Total	75	100

Table 4.4 shows the job experience of the respondents. The largest group among the respondents (31%) had more than 15 years of job experience with 29% with 11-15 years of job experience; the results correspond to the age groups of the respondents. This also indicates that the officers join the police service at a young age. of the others, the least experienced officers (0-2 years) was the smallest group (5%).

Table 4-4: Frequency Distribution of Respondents by Job Experience (n=75)

Job Experience (Years)	Frequency	Percent
0-2 years	4	5
3-6 years	11	15
7-10 years	15	20
11-15 years	22	29
More than 15 years	23	31
Total	75	100

Apart from police school training, table 4.5 indicates that the bulk of the respondents 71% have the minimum police service entry requirement of an O-level certificate. 23% of the respondents had a diploma with a dismal 5% being degree holders. Of the 75 respondents, only 4 had a university degree as the highest level of education. This is attributable to the fact that the study targeted first line police officers.

Table 4-5: Frequency Distribution of Respondents by Education Level (n=75)

Education Level	Frequency	Percent
High School	54	72
Diploma Holder	17	23
Degree Holder	4	5
Total	75	100

4.5 Narcotic Drugs Control by Police Officers at JKIA

The narcotic drugs control efforts at the Jomo Kenyatta International Airport were tabulated by the drug and number of successful drug seizures from 2011 to 2015. This is shown in figure 4.1 below.

Table 4-6: Narcotic Drug Seizures from 2011 to 2015

	Number of interdictions per year				
Drug	**2011**	**2012**	**2013**	**2014**	**2015**
Heroine	0	5	6	4	5
Cocaine	5	1	4	6	1
Cannabis	2	0	0	0	0
Methamphetamine	2	5	2	0	0
Ephedrine	1	0	0	0	0

Source: Anti-Narcotics Police Unit, 2016.

With no apparent trends from the data, the absolute difference taking 2011 as the base year and 2015 as the reference year, was used as the measure of narcotic drugs seizure as measured by the number of couriers arrested with the narcotic drugs seized to indicate narcotic drugs control success by police officers as JKIA.

4.6 Relationship between Socio-Demographic Characteristics and Narcotic Drugs Control

The study sought to determine the relationship between socio-demographic characteristics of respondents and narcotic drugs control by police officers at JKIA. Socio-demographic information on gender, age, job experience years and education qualification of the respondents was sought. A Chi-square test was used to determine the relationship between the four socio-demographic characteristics of the police officers gender, age, job experience years and their education qualification and narcotic drugs.

a) Gender: There was no statistically significant relationship between the gender of a police officer and narcotic drugs control ($X^2(3) = 2.958, p = .398$).

Table 4-7: Chi Square Test Table for Gender

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.958[a]	3	.398
Likelihood Ratio	4.075	3	.253
Linear-by-Linear Association	1.614	1	.204
N of Valid Cases	75		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is .44.

b) Age: There was no statistically significant relationship between the age of a police officer and narcotic drugs control ($X^2(9) = 12.286, p = .198$).

Table 4-8: Chi Square Test Table for Age

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.738[a]	12	.467
Likelihood Ratio	12.055	12	.441
Linear-by-Linear Association	5.574	1	.018
N of Valid Cases	75		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is .05.

c) Job Experience: There was no statistically significant relationship between the number of years a police officer has worked in the National Police Service and narcotic drugs control ($X^2(12) = 11.738, p = .467$).

Table 4-9: Chi Square Test Table for Age

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.738[a]	12	.467
Likelihood Ratio	12.055	12	.441
Linear-by-Linear Association	5.574	1	.018
N of Valid Cases	74		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is .05.

d) Education: There was no statistically significant relationship between the education level of a police officer and narcotic drugs control ($X^2(6) = 2.984, p = .811$).

Table 4-10: Chi Square Test Table for Age

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.984[a]	6	.811
Likelihood Ratio	3.824	6	.700
Linear-by-Linear Association	2.176	1	.140
N of Valid Cases	75		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is .05.

4.7 Influence of Organizational Resources Capacity on Narcotic Drugs Control

The study sought to determine the influence of organisational resources capacity of the National Police Service on the control of narcotic drugs by police officers. The respondents were presented with questions and statements aimed at answering the research question by indicating their disagreement or agreement on a scale of 1-5, with 1 being strongly disagree (SD), 2- disagree (D), 3- neither agree nor disagree (N), 4- agree (A), and 5- strongly agree (SA). The results of the questions are as illustrated in table 4-6 below based on the question number to measure this objective.

Table 4-11: Extent to which respondents agreed on the availability of Organisation Resource Capacity to enable Narcotic Drugs Control

Organisational resource capacity	Valid N	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	SD
a. I have enough resources that enable me to perform my work effectively	75	1	5	20	55	19	2.18	0.83
b. There are enough computers for me to use at work	75	1	0	11	61	27	1.88	0.67
c. I have access to information that enables me to perform my work effectively	75	1	19	29	36	15	2.56	1.00
d. I receive intelligence information in a timely manner	75	3	15	32	41	9	2.60	0.94
e. I am compensated fairly relative to the local job market	75	3	3	31	45	19	2.23	0.87
f. My department's fiscal well-being is stable	75	1	4	47	37	11	2.48	0.80
g. The National Police Service budget is sufficient for effective performance of our work	75	1	3	44	32	20	2.33	0.88

Overall, from the combination of strongly agree and agree to represented by agreed and strongly disagree and disagree represented by disagree, as shown in figure 4-2, only 9% of the respondents agreed that they had enough resources to utilise in narcotic drugs control with majority (61%) disagreeing. 30% of the respondents were indifferent.

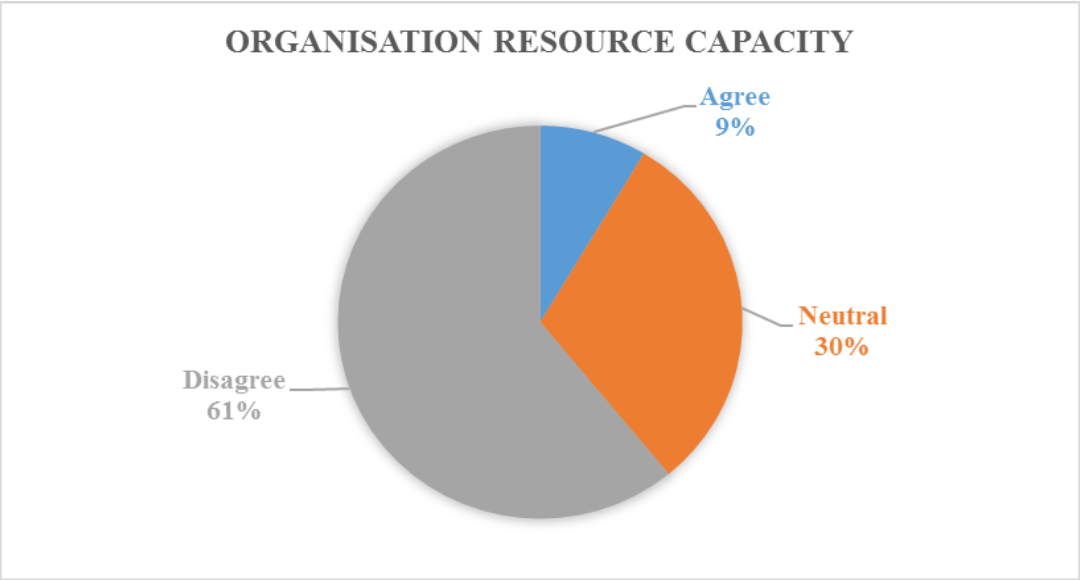

Figure 4-1: Number of respondents who agreed/disagreed that they had Organisation Resources to enable Narcotic Drugs Control

4.8 Influence of the Legal and Regulatory Framework on Narcotic Drugs Control

To find out the extent to which the Kenyan Narcotic Drugs Legal and Regulatory Framework influences the control of narcotic drugs among police officer, officers were requested to indicate their disagreement or agreement on a scale of 1-5, with 1 being strongly disagree (SD), 2- disagree (D), 3- neither agree nor disagree (N), 4- agree (A), and 5- strongly agree (SA), with questions and statements that aimed to answer the research question. The results of the questions are as illustrated below in table 4-7 based on the question number to measure this objective.

Table 4-12: Extent to which respondents agreed that the Kenyan Narcotic Drugs Legal and Regulatory Framework is effective in Narcotic Drugs Control

Legal and Regulatory framework	Valid N	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	SD
a. The Act is easy to understand	75	9	24	43	15	9	3.09	1.07
b. The Act guides me in performing narcotic drug control duties	75	13	35	37	9	5	3.41	1.02
c. The Act is effective when conducting investigations on narcotic drugs	75	12	44	37	3	4	3.57	0.89
d. The Act is effective when arresting narcotic drug offenders	75	13	41	36	7	3	3.56	0.90
e. The Act is effective when prosecuting narcotic drug offenders	75	15	43	37	3	3	3.64	0.86
f. The Act is in tune with the Kenyan policy on drug law enforcement	75	16	53	27	1	3	3.87	0.74

Overall, from the combination of strongly agree and agree to represented by agreed and strongly disagree and disagree represented by disagree, 54% of the respondents agreed that the legal and regulatory framework is effective in narcotic drugs control while 9% disagreed with 37% being indifferent. This is illustrated in figure 4-3 below.

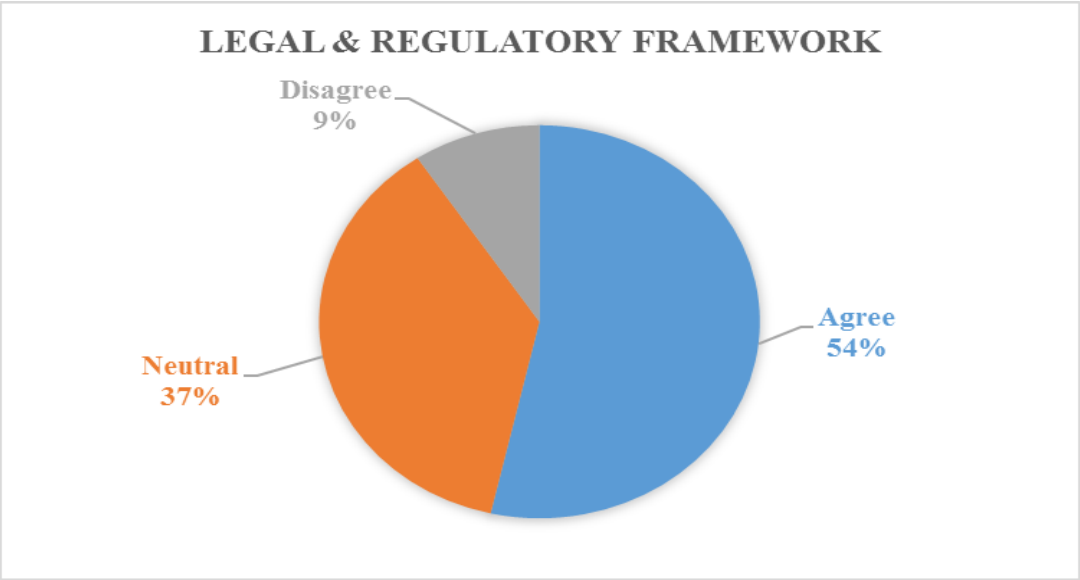

Figure 4-2: Number of respondents who agreed/disagreed that the Kenyan Narcotic Drugs Legal and Regulatory Framework is effective in Narcotic Drugs Control

4.9 Influence of Information Technology on Narcotic Drugs Control

To explore the influence on information technology on the control of narcotic drugs, questions and statements aimed at answering the resultant research question were presented to the respondent. Officers were requested to indicate their disagreement or agreement on a scale of 1-5, with 1 being strongly disagree (SD), 2- disagree (D), 3- neither agree nor disagree (N), 4- agree (A), and 5- strongly agree (SA). The results of the questions are as illustrated in table 4-8 below based on the question number to measure this objective.

Table 4-13: Extent to which respondents agreed that Information Technology would enhance Narcotic Drugs Control

Information Technology	Valid N	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	SD
a. To be more effective in my work, I require access to information technology	75	63	33	0	1	3	4.53	0.81
b. I have access to information technology that enables me to effectively perform my job	75	16	9	29	36	9	2.86	1.26
c. Increased access to information technology will improve my performance at work.	75	59	37	1	1	1	4.51	0.72
d. Using information technology in policing is a good idea	75	64	32	1	1	1	4.56	0.72

Overall, from the combination of strongly agree and agree to represented by agreed and strongly disagree and disagree represented by disagree, respondents agreed that information technology would enhance their ability to better control narcotic drugs at JKIA. This is indicated in figure 4-4 by 78% of the respondents who agreed versus 14% who disagreed. A measly 8% were indifferent.

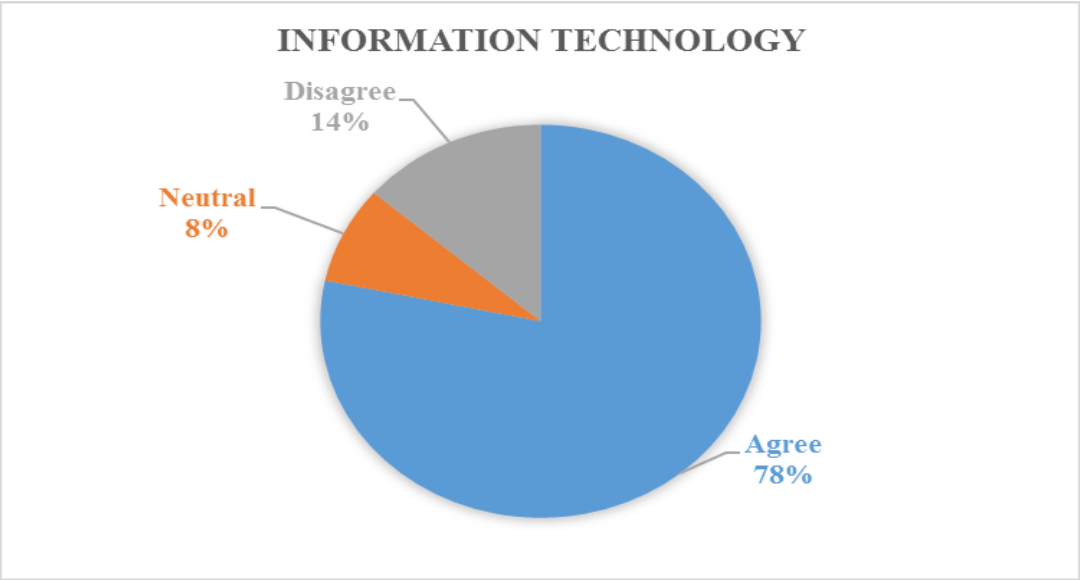

Figure 4-3: Number of respondents who agreed/disagreed that Information Technology would enhance Narcotic Drugs Control

4.10 Influence of Drug Courier Profiling on Narcotic Drugs Control

The study sought to assess the influence of drug courier profiling on the control of narcotic drugs by police officers at JKIA. The respondents were presented with questions and statements aimed at answering the resultant research question. Officers were requested to indicate their disagreement or agreement on a scale of 1-5, with 1 being strongly disagree (SD), 2- disagree (D), 3- neither agree nor disagree (N), 4- agree (A), and 5- strongly agree (SA). The results of the questions are as illustrated below based on the question number to measure this objective (table 4-9).

Table 4-14; Extent to which respondents agreed that Drug Courier Profiling was effective in Narcotic Drugs Control

Information technology	Valid N	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	SD
a. The drug courier profiling training that I have gone through is effective in identifying drug couriers	75	4	21	39	16	20	2.74	1.14
b. It is easy to identify a drug courier using the drug courier profile	75	5	24	35	27	9	2.89	1.05
c. I have successfully apprehended a drug courier using the drug courier profile	75	5	20	28	27	20	2.62	1.17
d. Drug courier profiling is effective in identifying emerging risk factors of new drug couriers	75	7	23	45	19	7	3.08	0.98
f. The results of using the drug courier profile are apparent to me	75	7	12	27	39	16	2.58	1.11

Overall, from the combination of strongly agree and agree to represented by agreed and strongly disagree and disagree represented by disagree, 25% agreed that drug courier profiling was effective in narcotic drugs control, 40% disagreed while 35% were indifferent. This is illustrated in figure 4-5 below.

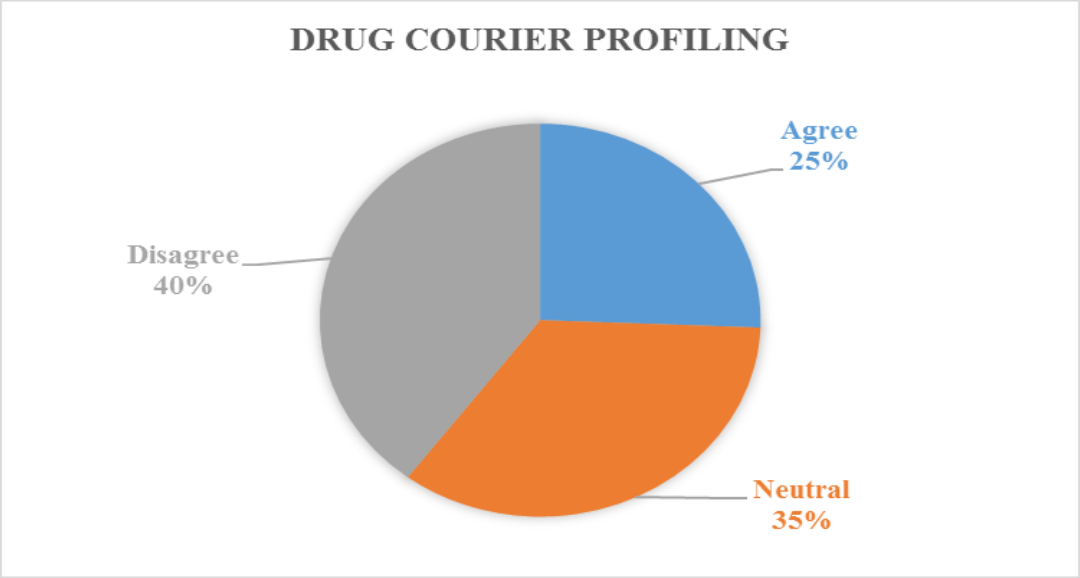

Figure 4-4: Number of respondents who agreed/disagreed that Drug Courier Profiling was effective in Narcotic Drugs Control

4.11 Regression Analysis

The researcher conducted linear regression analysis to assess the challenges influencing the control of narcotic drugs by police officers at JKIA. The linear regression analysis models the linear relationship between the dependent variable which is Narcotic Drugs Control and the independent variables which are Organisational Resource Capacity, Legal & Regulatory Framework, Drug Courier Profiling and Information Technology.

Table 4-15: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.898[a]	.806	.795	.12226

a. Predictors: (Constant), Organisational Resource Capacity, Legal & Regulatory Framework, Drug Courier Profiling, Information Technology

The coefficient of determination R^2 and correlation coefficient R show the degree of association between the independent variables and the independent variable. The coefficient of determination R^2 and correlation coefficient (r) shows the degree of association between Variables and Narcotic Drugs Control at JKIA. The results of

this linear correlation show that R^2= .806 which indicates that our independent variables (Organisational Resource Capacity, Legal & Regulatory Framework, Drug Courier Profiling, Information Technology) explain 89.8% of the variability of our dependent variable (Narcotic drugs control). R= .898 indicates a good level of prediction of the dependent variable.

Table 4-16: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.287	4	1.072	71.708	.000[b]
	Residual	1.031	69	.015		
	Total	5.318	73			

a. Dependent Variable: Narcotic Drug Control
b. Predictors: (Constant), Organisational Resource Capacity, Legal & Regulatory Framework, Drug Courier Profiling, Information Technology

Table 4.11 shows that the independent variables (predictors) statistically significantly predict the dependent variable, F (4, 69) = 71.708, p =.000. This indicates that the model is a good fit of the data.

Table 4-17: Coefficient of Determination

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.406	.106		13.312	.000
	Organisational Resource Capacity	.326	.019	.899	16.925	.000
	Legal & Regulatory Framework	-.010	.024	-.029	-.411	.683
	Information Technology	.014	.025	.038	.585	.561
	Drug Courier Profiling	.006	.015	.022	.381	.705

a. Dependent Variable: Narcotic Drugs Control

A multiple linear regression was calculated to predict narcotic drugs control by police officers at JKIA (Y) based on organisational resource capacity of the NPS (X_1), the legal and regulatory framework as guide by The Narcotic Drugs and Psychotropic Substances (Control) Act, 2012 (X_2), Information technology (X_3) and Drug courier profiling (X_4). A significant regression equation was found F (4, 69) = 71.708, p= .000, with an R^2 of .806. Narcotic drugs control, Y= 1.406+ $0.326X_1$- $0.010X_2$+ $0.014X_3$+ $0.006X_4$.

The analysis shows that the legal and regulatory framework *t (68) = -.411, p=.683,* information technology *t (68) = .585, p=.561,* and Drug courier profiling *t (68) = -.381, p=.705,* did not significantly predict narcotic drugs control. However, organisation resource capacity did significantly predict the narcotic drugs control *t (68) = 16.925, p=.000* at 95% level of confidence.

CHAPTER FIVE: DISCUSSION, SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a discussion of the study findings, the summary, the study conclusion and finally recommendations of the study based on the findings and recommendations for further research.

5.2 Discussion of the Study Findings

5.2.1 Relationship between Socio-Demographic Characteristics and Narcotic Drugs Control

The results of chi-square test indicated that there was no statistically significant relationship between the gender, age, job experience and the education level of the police officers who responded to the questionnaire and narcotic drugs control. This tells us that despite the gender, age, job experience and education level, the probability of successful narcotic drug control at JKIA by a police officer, *ceteris paribus*, is equal. This concurs with the findings of Yalcinkaya (2007) and Teshome (2016) on performance of police officers.

5.2.2 Influence of Organizational Resources Capacity on Narcotic Drugs Control

The low mean of the responses to the organisational resource capacity indicates a lack of enabling environment for the police to work in (perceived or not). These results relate to those of Omeje and Githigaro (2012) who found institutional and operational capacity deficits which encumbered the police force, now police service, in their responsibility of law enforcement and crime control. Nyongesa (2013) identified insufficient funds, inadequate capital resources, and inadequate qualified personnel as the resources that affected the implementation of organizational strategy of the then Kenya Police Service.

To determine how organisational resource capacity of the National Police Sevice influence narcotic drugs control by police officers at Jomo Kenyatta International Airport, regression analysis was carried out. The results indicated that organisational resource capacity of the NPS has a significantly positive influence on narcotic drugs control by police officers at JKIA. Thus, a unit increase in the organisational resource capacity of the NPS would lead to a .326 increase in number of narcotic drugs seized by police officers at JKIA. This shows the resource dependent nature of narcotic drugs control activities and supports the resource dependency theory. The low number of drug seizures and narcotic drug couriers arrest may have contributed to these results.

5.2.3 Influence of the Legal and Regulatory Framework on Narcotic Drugs Control

Apart from the relatively weak mean on the ease of understanding The Narcotic Drugs and Psychotropic Substances (Control) Act, 2012, results show that the act in general is resourceful for the police officers when carrying out narcotic drugs control activities.

To find out the extent to which the legal and regulatory framework influences narcotic drugs control, regression analysis was carried out. The results indicated a non-significant negative influence of the legal and regulatory framework on narcotic drugs control. The results may be due to the fact that non-specialised officers were interviewed who did not understand the act. Also, the low number of respondents may have contributed to these findings. Despite this, the negative influence of the legal and regulatory framework on narcotic drugs control concur with Werb et al (2011) who found that increasing drug law intervention efforts was unlikely to reduce drug market violence. It also gives credence to Ritter's (2009) argument that 'persuasion' and 'command and control' strategies alone as applied by drug laws

leave the regulatory approach significantly limited. Again, the low number of drug seizures and narcotic drug couriers arrest may have contributed to the results. Thus, from the foregoing, there is inadequate correlation to the regulatory theory and further studies should be conducted.

5.2.4 Influence of Information Technology on Narcotic Drugs Control

The results indicate that majority of the police officers have no access to information technology that would enable them to improve the performance of their work. These results concur with the findings by Nyongesa (2013) who found that police officers have not embraced IT which affected the speed and communication of decisions made. Kumbuti (2013) found that police had low uptake of soft technology in Nairobi. The situation is also similar in Ethiopia as found by Teshome (2016) where lack of advanced teschnology was a challenge facing the Counter Dug Controlling Unit at Bole International Airport.

The results indicated that the adoption of technology would have a great impact on policing in Kenya, and narcotic drugs control in particular. This is because there was a high percived usefulness of adopting technology in policing implying an encompasing cultural attitude of acceptance of technology. Thus, the Task-Technology Fit model did not fit since there was no technology adopted by the police service.

Regression analysis to investigate the infuence of information technology access on narcotic drugs control by police officers at JKIA indicated a non-significant positive influence. The outcome can be attributed to the lack of a standard information technology platform utilised by the NPS in the dicharge of their duties. This may invalidate the use of information technology as a variable to predict narcotic drugs control. Again, the high number of non-specialised police officers utilised in the

study might have contributed to the outcome of these results. Also, the low number of drug seizures and narcotic drug couriers arrest may have contributed to the results.

5.2.5 Influence of Drug Courier Profiling on Narcotic Drugs Control

The findings on drug courier profiling further add fuel to the debate on its effectiveness as a law enforcement approach. The results indicate the ineffectiveness of the training received, the inability to use the drug courier profile to identify a drug courier, the lack of success of having used the drug courier profile to apprehend, and identify emergent risk factors and the apparent lack of results in using the drug courier profile. The institutionalization of the drug courier profile does not seem to yield positive results. These results, though not comparative, seem to support Curren's (2007) assertion that experienced profilers do not outperform comparison groups in predicting a suspected offender.

Attempts to establish the influence of drug courier profiling on narcotic drugs control by police officers at JKIA using regression analysis established a non-significant positive influence. These results may indicate the ineffectiveness of the drug courier profile as a law enforcement strategy although the results may have been influenced by the high number of non-specialised police officers who participated in the study. Also, the low number of drug seizures and narcotic drug couriers arrest may have contributed to the results.

5.3 Summary of the Study

The objective of this study was to assess the challenges that influence narcotic drugs control by police officers at JKIA. Based on previous studies, the challenges assessed were organizational resource capacity, the legal and regulatory framework, information technology access, and drug courier profiling which were expected to have a positive influence on narcotic drug control. The relationship between socio-

demographic characteristics and narcotic drugs control was also sought. From the results, keeping the four challenges at zero, narcotic drug control would be at 1.406 being courier arrests and/or narcotic drug seizure. The results indicate that the organisational resource capacity has a significant positive influence on narcotic drugs control. The legal and regulatory framework indicated a non-significant negative influence while access to information technology and drug courier profiling indicated non-significant positive influence on narcotic drugs control. There was no statistically significant relationship between the gender, age, job experience and education level of a police officer and narcotic drugs control.

This study has produced insights into challenges that influence narcotic drug control in transit hubs. The study uses the mandated institution's organisational resource capacity, the country's legal and regulatory framework, the mandated institution's personnel access to information technology and the mandated institutional drug courier profile as the means of identifying and apprehending suspected offenders as the predictors of narcotic drug control. The influence of these challenges is quantified and thus their role in preventing and/or aiding in the disruption of transnational crime can be incorporated in the empirical and theoretical knowledge in this field.

The use of self-administered questionnaire, while increasing the trust and confidentiality of the study participants, may have contributed to the poor response rate of the open-ended questions whose results were not included. This means other challenges which would have been identified as interpreted by the respondents are not included in this study. Also, the low number of drug seizures and narcotic drug couriers arrest and the lack thereof of an apparent trend may have contributed to the results of this study.

5.4 Conclusions of the Study

This study resulted in five main conclusions;

Firstly, based on the findings on the relationship between socio-demographic characteristics of a police officer and narcotic drugs control at JKIA, it is logical to conclude that the success of narcotic drugs will be influenced by other factors other than the gender, age, job experience and education level of a police officer.

Secondly, based on the finding that there is a significant positive relationship between the organisational resource capacity and narcotic drugs control by police officers at JKIA, it is logical to conclude that allocation of more rational relevant resources to narcotic drugs control will lead to higher incidences of drug seizures at the airport.

Thirdly, the non-significant negative relationship between the legal and regulatory framework and narcotic drugs control by police officers at JKIA leads to the conclusion that police officers need more awareness training on The Narcotic Drugs and Psychotropic Substances (Control) Act.

Fourthly, the finding that most police officers do not have no access to information technology that would enable them to improve the performance of their work in narcotic drugs control leads to the conclusion that the National Police Service does not utilise a standard information technology platform that can enhance narcotic drugs control.

Lastly, the findings on drug courier profiling; training ineffectiveness and its inability of use and generate positive results by the respondents leads to the conclusion that drug courier profiling is not an effective strategy on narcotic drugs control.

5.5 Recommendations of the Study

Based on the finding of the study, the researcher recommends that;

1. There is low organisational resource capacity in the National Police Service which affects its ability to control narcotic drugs at JKIA. Therefore, the NPS should consider utilising empirical data that can be used to support the case for need of more resources to enhance narcotic drugs control.
2. The legal and regulatory framework, despite being enabling, is not well understood by police officers at JKIA. The NPS should consider incorporating on the job trainings for police officers on the legalese.
3. Despite the police officer's willingness to use information technology to enhance effective work performance, there is no access. The NPS should consider creating and using predictive policing technology at JKIA to cover ground for the few resources.
4. Drug courier profiling training is not deemed effective by the police officers. The NPS should consider creating a review process to measure the effectiveness of its training regimes.

5.6 Recommendations for Further Research

The study recommends further research on the challenges influencing narcotic drugs control in other ports of entry. This will enable the NPS to come up with an institutional strategy to address the challenges faced.

Further research should be conducted on role of employee engagement of police officers as a driver for narcotic drug control success. This will enable the NPS to identify opportunities to enhance the productivity of police officers.

REFERENCES

Anti-Narcotics Police Unit. (2016). *Annual Significant Drug Seizures at JomoKenyatta International Airport.* Nairobi.

Babbie, E. (2010). *The Practice of Social Research* (12th ed. ed.). California: Cengage Learning, Inc.

Benson, B. L., & Rasmussen, D. W. (1991). Relationship Between Illicit Drug Enforcement Policy and Property Crimes. *Contemporary Policy Issues Volume, 9*, 106-115.

Burruss, G., Schafer, J., Giblin, M., & Haynes, M. (2012). *Homeland Security in Small Law Enforcement Jurisdictions: Preparedness, Efficacy, and Proximity to Big-City Peers.* U.S. Department of Justice. Illinois: NCJRS.

Byrne, J., & Marx, G. (2011). Technological Innovations in Crime Prevention and Policing. A Review of the Research on Implementation and Impact. *Journal of Police Studies, 2*, 17-38.

Chan, J., Brereton, D., Legosz, M., & Doran, S. (2001). *E-policing:The Impact of Information Technology on Police Practices.* Queensland: Criminal Justice Commission.

Conser, J. A., Paynich, R., & Gingerich, T. E. (2013). *Law Enforcement in the United States* (3rd ed.). MA.: Jones & Bartlett Learning, LLC.

Cooper, D. R., & Schindler, P. S. (2011). *Business Research Methods* (11th ed.). McGraw Hill Education (India) Private Limited.

Cox, B. G. (2008). *Target Population*. Retrieved March 02, 2015, from Sage Research Methods: http://srmo.sagepub.com/view/encyclopedia-of-survey-research-methods/n571.xml

Creswell, J. W. (2003). *Research design: Qualitative, Quantitative, and mixed methods* (2nd ed.). SAGE Publications, Inc.

Dattalo, P. (2008). *Determining Sample Size: Balancing Power, Precision and Practicality.* New York: Oxford University Press, Inc.

Dimova, M. (2014). A New Agenda for Policing: Understanding the Heroin Trade in East Africa. *ECPR General Conference* (pp. 1-16). Glasgow: University of Glasgow.

DOD. (2010, November 8). *Department of Defense Dictionary of Military and Associated Terms.* Retrieved June 20, 2016, from Joint Publication 1-02, Nov. 8 2010 (As Amended Through Aug. 15http://www.drugwarfacts.org/cms/Drug_Interdiction#sthash.4z0sIGDA.dpuf

Ekathimerini. (2013, October 29). *Nine kilos of heroin intercepted at Athens International Airport*. Retrieved April 10, 2016, from Ekathimerini.com: http://www.ekathimerini.com/154994/article/ekathimerini/news/nine-kilos-of-heroin-intercepted-at-athens-international-airport

Engel, R. S., Calnon, J., & Bernard, T. (2002). *Theory and racial profiling: Shortcomings and future directions in research*. Justice Quarterly, 19(2).

European Union Agency for Fundamental Rights. (2010). *Towards More Effective Policing Understanding and Preventing Discriminatory Ethnic Profi ling: A Guide.* Luxembourg: Publications Office of the European Union.

Fritsvold, E. D. (2015, June). International Drug Trafficking. *Criminology*.

Goodhue, D. L., & Thompson, R. L. (1995). Task-technology fit and individual performance. *MIS Quarterly, 19*(2), pp. 213-236.

Govenment of Kenya. (2012). The Narcotic Drugs and Psychotropic Substances (Control) Act, No. 4 of 1994. Nairobi: National Council for Law Reporting.

Graycar, A., McGregor, K., & Makkai, T. (2001). Drugs and Law Enforcement. *Winter School in the Sun Conference.* Brisbane: Australian Institute of Criminology.

Hoffman, A. J., & Sandelands, L. E. (2005). Getting Right with Nature-Anthropocentrism, Egocentrism, and Theocentrism. *Organisation & Environment, 18*, 141-162.

Holt, C., Kydd, A., Razzolini, L., & Sheremeta, R. (2013). *The Paradox of Misaligned Profiling: Theory and Experimental Evidence.* Journal of Economic Literature.

Hughes, C. E., & Stevens, A. (2010). What can we learn from the Portuguese decriminalization of illicit drugs? *British Journal of Criminology, 50*, 999-1022.

INCSR. (2015). *International Narcotics Control Strategy Report.* Bureau for international Narcotics and Law Enforcement Affairs, United States Department of State. Washington, DC: Bureau for international Narcotics and Law Enforcement Affairs.

International Narcotics Control Board (INCB). (2008). *Report of the International Narcotics Control Board for 2008.* INCB.

Jelsma, M. (2011). *The Development of International Drug Control: Lessons Learned and Strategic Challenges for the Future.* Geneva: Global Commission on Drug Policies.

Kaaria, B. I., & Muchiri, D. L. (2011). Enforcement Challenges Across Borders: Detectng and Prosecuting Illegal Wildlife Trafficking. *Ninth International Conference on Environmental Compliance and Enforcement.*

Kadish, M. J. (1997). The Drug Courier Profile: In Planes. Trains, and Automobiles; And Now in the Jury. *The American University Law Review, 6:747*, pp. 748-790.

Kageha, E. (2015). Drug Laws and Human Rights in Kenya: Disharmony in the Law

and Training Recommendations to Law Enforcement. *MainLine*, 1-26.

Kerlinger, F. (1986). *Foundations of Behaviour Research* (3 ed.). New York: Holt, RineHart, and Winston.

Kothari, C. R. (2004). *Research Methodology: Methods and Techniques* (2nd ed.). New Delhi: New Age International (P) Ltd., Publishers.

Kumbuti, H. M. (2013). *Use of Technology as a Strategy by Kenya Police in Detection of Crimes in Nairobi City.* Nairobi.

Kvale, S. (2007). *Doing Interviews.* Thousand Oaks, CA: SAGE Publications Ltd.

Lombardo, R., & Olson, D. (2009). Organizational Approaches to Drug Law Enforcement by Local Police Departments in the United States: Specialized Drug Units and Participation in Multi-Agency Drug Task Forces. *Justice Research and Policy, 11*.

McCarty, W. P., Ren, L., & Zhao, J. ". (2012, May). Determinants of Police Strength in Large U.S. Cities During the 1990s: A Fixed-Effects Panel Analysis. *Crime & Delinquency, 58*(3), pp. 397-424.

Mugenda, A. G. (2008). *Social Science Research.* Nairobi: Acts Press.

Mugenda, O. M., & Mugenda, A. G. (2003). *Researh Methods; Quantitative and Qualitative Approaches.* Nairobi: Act Press.

NACADA. (2016). *Stakeholders*. Retrieved March 10, 2016, from The National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA): http://www.nacada.go.ke/about/stalkholders

Neelankavil, J. P. (2007). *International Business Research.* New York: M.E. Sharpe, Inc.

Nyongesa, R. A. (2013). *Challenges of Strategy Implementation at the Kenya Police Service.* Nairobi: University of Nairobi.

OECD. (2002). *Glossary of key terms in evaluation and results based management.* Development Co-operation Directorate. Paris: OECD Publications. Retrieved from http://www.oecd.org/dataoecd/29/21/2754804.pdf

Ombati, C. (2010, July 13). *Kenyan woman convicted of drug trafficking arrested in Italy*. Retrieved April 22, 2016, from Standard Digital: http://www.standardmedia.co.ke/business/article/2000013809/kenyan-woman-convicted-of-drug-trafficking-arrested-in-italy/?pageNo=2

Ombati, C. (2016, January 18). *42 Kenyan Drug Suspects Rotting in Hong Kong Cells*. Retrieved April 10, 2016, from Standard Digital: http://www.standardmedia.co.ke/article/2000188502/42-kenyan-drug-suspects-rotting-in-hong-kong-cells

Omeje, K., & Githigaro, J. M. (2012). The Challenges of State Policing in Kenya. *Peace & Conflict Review, 7*(1), 1-32. Retrieved from The Peace and Conflict Review.

Ott, R. L., & Longnecker, M. (2010). *An Introduction to Statistical Methods and Data Analysis* (6th ed. ed.). California: Cengage Learning, Inc.

Paul-Emile, K. (2010). Making Sense of Drug Regulation: A Theory of Law for Drug Control Policy. *Cornell Journal of Law and Public Policy, 19*(3).

Pfeffer, J., & Salancik, G. R. (1978). *The External Control of Organizations: A Resource Dependence Perspective.* New York: Harper and Row.

Police Executive Research Forum. (2012). *How Are Innovations in Technology Transforming Policing?* Police Executive Research Forum.

Project Management Institute. (2013). *A Guide to the Project Management Body of Knowledge- Fifth Edition.* Pennslyvania: Project Management Institute Inc.

Ritter, A. (2009, September 14). Illicit drugs policy through the lens of regulation. *International Journal of Drug Policy, 21*, pp. 265-270.

Rocco, T. S., & Plakhotnik, M. S. (2009, March). Literature Reviews, Conceptual Frameworks, and Theoretical Frameworks: Terms, Functions, and Distinctions. *Human Resource Development Review, 8*(1), 120-130.

Schuberth, M. (2014). The Impact of Drug Trafficking on Informal Security Actors in Kenya. *Africa Spectrum, 49*(3), 55-89.

Schwabe, W., Davis, L. M., & Jackson, a. B. (2001). *Challenges and choices for crime-fighting technology: Federal support of state and local law enforcement.* CA: RAND.

Serrador, P., & Turner, R. (2015). The Relationship Between Project Success and Project Efficiency. *Project Management Journal, Vol. 46, No. 1*, 30-39. doi:10.1002/pmj.21468

Snook, B., Eastwood , J., Gendreau, P., Goggin, C., & Curren, R. M. (2007). Taking Stock of Criminal Profiling: A Narrative Review and Meta-analysis. *Criminal Justice and Behavior*.

Some, K. (2012, July 28). *Kenya's Drug-peddling Women Waste away in Faraway Jails*. Retrieved April 15, 2016, from Daily Nation: http://www.nation.co.ke/news/Kenyas-drug-peddling-women-waste-away-in-faraway-jails-/-/1056/1465774/-/5gywkmz/-/index.html

Steffen, G. S., & Candelaria, S. M. (2010). *Drug Interdiction: Partnerships, Legal Principles, and Investigative Methodologies for Law enforcement.* NW: Taylor & Franis Group.

Stevens, D. J. (2009). *An Introduction to American Policing.* Massachusetts: Jones and Bartlett Publishers.

Swanson, R. A., & Chermack, T. J. (2013). *Theory Building in Applied Disciplines.* San Fransisco, CA: Berrett-Koehler Publishers.

Teshome, A. (2016). *The Scaffolding of Illegal Drugs Controlling and Prevention: A Case of the Drug Controlling Unit of the Federal Police Crime Prevention, at Bole International Airport.* Addis Ababa: Addis Ababa University.

The National Police Service. (2016). Retrieved from The National Police Service: http://www.nationalpolice.go.ke/

U.S. Census Bureau (UCB). (2010). *Statistical Quality Standards*. Retrieved March 30, 2015, from United States Census Bureau: http://www.eqavet.eu/qa/gns/glossary/d/data-collection-instrument.aspx

United Nations Office on Drugs and Crime (UNODC). (2015). *World Drug Report.* Vienna: Uniited Nations.

UNODC. (2009). *Organised Crime and Trafficking in Eastern Africa.* Nairobi: United Nations Offie on Drugs and Crime.

UNODC. (2016). *Drug trafficking*. Retrieved March 10, 2016, from United Nations Office on Drugs and Crime: https://www.unodc.org/unodc/en/drug-trafficking/index.html

Werb, D., Rowel, G., Guyatt, G., Kerr, T., Montaner, J., & Wood, E. (2011). Effect of drug law enforcement on drug market violence: a systematic review. *International Journal on Drug Policy*, 87-94.

Willis, K., Anderson, J., & Hommel, P. (2011, February). Measuring the effectiveness of drug law enforcement. *Trends & issues in crime and criminal justice, 406*.

Wotherspoon, F. (2013, August 3). *Kenyan Woman Arrested Macau for Drug Trafficking*. Retrieved April 22, 2016, from Jamii Forums: http://www.jamiiforums.com/threads/kenyan-woman-arrested-macau-for-drug-trafficking.1030321/

Wyler, L. S., & Cook, N. (2009). *Illegal Drug Trade in Africa: Trends and U.S. Policy.* Congessional Research Service.

Yalcinkaya, R. (2007). *Police Officers' Adoption of Information Technology: A Case Study of the Turkish POLNET System.* Doctor of Philosophy (Information Science), UNIVERSITY OF NORTH TEXAS.

Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). *Business Research Methods* (8th ed.). Cengage Learning.

APPENDICES

APPENDIX 1: QUESTIONNAIRE

Instructions

Please shade the appropriate box provided indicating your degree of agreement with the statements provided.

1	2	3	4	5

Section A: Study Variables

i) Organisational resource capacity

1= Strongly Disagree **2= Disagree** **3= Neutral** **4= Agree** **5= Strongly Agree**					
a) I have enough resources that enable me to perform my work	**1**	**2**	**3**	**4**	**5**
b) There are enough computers for me to use at work.	**1**	**2**	**3**	**4**	**5**
c) I have access to information that enables me to perform my work effectively.	**1**	**2**	**3**	**4**	**5**
d) I receive intelligence information in a timely manner	**1**	**2**	**3**	**4**	**5**
e) I am compensated fairly relative to the local job market	**1**	**2**	**3**	**4**	**5**
f) My department's fiscal well-being is stable	**1**	**2**	**3**	**4**	**5**
g) The National Police Service budget is sufficient for me to effectively performance my work	**1**	**2**	**3**	**4**	**5**

What organisation resources challenges do you encounter during narcotic drugs control duties?

……

……

ii) The Legal and Regulatory Framework

1= Strongly Disagree **2= Disagree** **3= Neutral** **4= Agree** **5= Strongly Agree**					
a) The Narcotic Drugs and Psychotropic Substances (Control) Act is easy to understand.	**1**	**2**	**3**	**4**	**5**
b) The Narcotic Drugs and Psychotropic Substances	**1**	**2**	**3**	**4**	**5**

(Control) Act guides me when performing narcotic drugs control duties.					
c) The Narcotic Drugs and Psychotropic Substances (Control) Act is effective when conducting narcotic drugs investigations.	**1**	**2**	**3**	**4**	**5**
d) The Narcotic Drugs and Psychotropic Substances (Control) Act is effective when arresting narcotic drugs offenders.	**1**	**2**	**3**	**4**	**5**
e) The Narcotic Drugs and Psychotropic Substances (Control) Act is effective when prosecuting narcotic drug offenders.	**1**	**2**	**3**	**4**	**5**
f) The Narcotic Drugs and Psychotropic Substances (Control) Act is in tune with the Kenyan policy on drug law enforcement	**1**	**2**	**3**	**4**	**5**

What aspects of The Narcotic Drugs and Psychotropic Substances (Control) Act impede your ability to effectively perform narcotic drug control duties?

……

……

iii) Technology

1= Strongly Disagree **2= Disagree** **3= Neutral** **4= Agree** **5= Strongly Agree**					
a) To be effective in my work, I require access to information technology	**1**	**2**	**3**	**4**	**5**
b) I have access to information technology that enables me to effectively perform my job	**1**	**2**	**3**	**4**	**5**
c) Increased access to information technology will improve my performance at work	**1**	**2**	**3**	**4**	**5**
d) Using information technology in policing is a good idea	**1**	**2**	**3**	**4**	**5**

What technological challenges do you encounter when performing narcotic drugs control duties?

……

……

iv) Drug Courier Profiling

1= Strongly Disagree **2= Disagree** **3= Neutral** **4= Agree** **5= Strongly Agree**					
a) The drug courier profiling training I received is effective in identifying drug couriers	**1**	**2**	**3**	**4**	**5**
b) It is easy to identify drug couriers using the drug courier profile	**1**	**2**	**3**	**4**	**5**
c) I have successfully apprehended drug couriers using the drug courier profile	**1**	**2**	**3**	**4**	**5**
d) Drug courier profiling is effective in identifying emerging risk factors of new drug couriers	**1**	**2**	**3**	**4**	**5**
e) The results of using the drug courier profile are apparent to me	**1**	**2**	**3**	**4**	**5**

What challenges do you face when using the drug courier profile to perform narcotic drugs control duties?

……

……

Section B: Demographic Information

(Please select the appropriate option for you)

Gender	Male		Female	

Age **(years)**	21-30	
	31-40	
	41-50	
	51-60	
	Over 60	

Job Experience	0-2 years	
	3-6 years	
	7-10 years	
	11-15 years	
	More than 15 years	

Education (Please select last graduation)	High School	
	Diploma Holder	
	Degree Holder	
	Masters Holder	
	PHD Holder	

APPENDIX 2: RESEARCH PERMIT

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349,3310571,2219420
Fax: +254-20-318245,318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
when replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 59623-00100
NAIROBI-KENYA

Ref. No

Date

NACOSTI/P/17/65819/15355

2nd February, 2017

Martin Irungu Ndegwa
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Challenges influencing narcotic drugs control by police officers at Jomo Kenyatta International Airport, Nairobi, Kenya,"*** I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending 1st **February, 2018.**

You are advised to report to **the Chief Executive Officers of selected government agencies, the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The Chief Executive Officers
Selected Government Agencies.

The County Commissioner
Nairobi County

NAIROBI 08 FEB 2017

09 FEB 20 NAIROBI

COUNTY COMMISSIONER
NAIROBI COUNTY
P. O. Box 30124-00100, NBI
TEL: 341666

APPENDIX 3: FIRST AND SECOND SCHEDULE

87. Power to amend Schedules

The Minister may, by order, add any substance or plant to the First, Second and Third Schedules and may from time to time delete therefrom any substance or plant the inclusion or exclusion of which, as the case may be, is deemed necessary by him in the public interest.

88. Repeal of Cap. 245

The Dangerous Drugs Act (Cap. 245) is repealed.

FIRST SCHEDULE

[Section 2.]

LIST OF NARCOTIC DRUGS

Acetorphine (3-*O*-acetyltetrahydro-7x-(1-hydroxy-1-methylbutyl)-6, 14-*endo*etheno-oripavine)

Acetyl-alpha-methylfentanyl (*N*-[1-(*a*-methylphenethyl)-4-piperidyl] acetanilide)

Acetylmethadol (3-acetoxy-6-dimethylamino-4, 4-diphenylheptane)

Alfentanil (N-[1-[2-(4-ethyl-4, 5-dihydro-5-oxo-1*H*-tetrazol-1-yl) ethyl)-(methoxymethyl)-4-piperidinyl]-*N*-phenylpropanamide monohydrochloride)

Allylprodine (3-allyl-l-methyl-4-phenyl-4-propionoxypiperidine)

Alphacetylmethadol (alpha-3-acetoxy-6-dimethylamino-4, 4-diphenylheptane)

Alphameprodine (alpha-3-ethyl-l-methyl-4-phenyl-4-propionoxypiperidine)

Alphamethadol (alpha-6-dimethylamino-4, 4-diphenyl-3-heptanol)

Alpha-methylfentanyl (*N*-[1-(*a*-methylphenethyl)-4-piperidyl] propionanilide)

Alpha-methylthiofentanyl (*N*-[1-[1-methyl-2-(2-thienyl) ethyl]-4-piperidyl] propionanilide)

Alphaprodine (alpha-1, 3-dimethyl-4-phenyl-4-propionoxy piperidine)

Anileridine (1-*para*-aminophenethyl-4-phenylpiperidine-4-carboxylic acid ethyl ester)

Benzethidine (1-(2-benzyloxyethyl)-4-phenylpiperidine-4-carboxylic acid ethyl ester)

Benzylmorphine (3-benzylmorphine)

Betacetylmethadol (beta-3-acetoxy-6-dimethylamino-4, 4-diphenylheptane)

Beta-hydroxyfentanyl (N-[1-(beta-hydroxyphenethyl)-4-piperidyl] propionanilide)

Beta-hydroxy-3-methylfentanyl (N-[1-(beta-hydroxyphenethyl)-3-methyl-4-piperidyl] propionanilide)

Betameprodine (beta-3-ethyl-1-methyl-4-phenyl-4-propionoxypiperidine)

Betamethadol (beta-6-dimethylamino-4, 4-diphenyl-3-heptanol)

Betaprodine (beta-1, 3-dimethyl-4-phenyl-4-propionoxypiperidine)

Bezitramide (1-(3-cyano-3, 3-diphenylpropyl)-4-(2-oxo-3-propionyl-1-benzimidazolinyl)-piperidine)

Cannabis (Indian Hemp) and Cannabis resin (Resin of Indian Hemp)

Clonitazene (2-*para*-chlorbenzyl-1-diethylaminoethyl-5-nitrobenzimidazole)

Coca Leaf

Cocaine (methyl ester of benzoylecgonine)

Codoxime (dihydrocodeinone-6-carboxymethyloxime)

Concentrate of poppy straw (the material arising when poppy straw has entered into a process for the concentration of its alkaloid when such material is made available in trade).

Desomorphine (dihydrodeoxymorphine)

Dextromoramide ((+)-4-[2-methyl-4-oxo-3, 3-diphenyl-4-(1-pyrrolidinyl)-butyl]-morpholine)

Diampromide (N-[(2-methylphenethylamino)-propyl]-propionanilide)

Diethylthiambutene (3-diethylamino-I, I-di-(2'-thienyl)-butene)

Difenoxin (1-(3-cyano-3, 3-diphenylpropyl)-4-phenylisonipecotic acid)

Dihydromorphine

Dimenoxadol (2-dimethylaminoethyl-I-ethoxy-I, I-diphenylacetate)

Dimepheptanol (6-dimethylamino-4, 4-diphenyl-3-heptanol)

Dimethylthiambutene (3-dimethylamino-I, I-di-(2'-thienyl)-1-butene)

Dioxaphetyl butyrate (ethyl-4-morpholino-2, 2-diphenylbutyrate)

Diphenoxylate (1-(3-cyano-3, 3-diphenylpropyl)-4-phenylpiperidine-4-carboxylic acid ethyl ester)

Dipipanone (4, 4-diphenyl-6-piperidine-3-heptanone)

Drotebanol (3, 4-dimethoxy-17-methylmorphinan-6β, 14-diol)

Ecgonine, its esters and derivatives which are convertible to ecgonine and cocaine

Ethylmethylthiambutene (3-ethylmethylamino-I, I-di-(2'-thienyl)-I-butene)

Etonitazene (I-diethylaminoethyl-2-*para*-ethoxybenzyl-5-nitrobenzimidazole)

Etorphine (tetrahydro-7x-(I-hyroxyl-I-methylbutyl)-6, 14-*end*oetheno-oripavine)

Etoxeridine (1-[2-(2-hydroxyethoxy)-ethyl]-4-phenylpiperidine-4-carboxylic acid ethyl ester)

Fentanyl (I-phenethyl-4-N-propionylanilinopiperidine)

Furethidine (1-(2-tetrahydrofurfuryloxyethyl)-4-phenylpiperidine-4-carboxylic acid ethyl ester)

Heroin (diacetylmorphine)

Hydrocodone (dihydrocodeinone)

Hydromorphinol (14-hydroxydihydromorphine)

Hydromorphone (dihydromorphinone)

Hydroxypethidine (4-*meta*-hydroxyphenyl-l-methylpiperidine-4-carboxylic acid ethyl ester)

Isomethadone (6-dimethylamino-5-methyl-4, 4-diphenyl-3-hexanone)

Ketobemidone (4-*meta*-hydroxyphenyl-l-methyl-4-propionylpiperidine)

Levomethorphan* ((–)-3-methoxy-N-methylmorphinan)

Levomoramide ((–)-4-[2-methyl-4-oxo-3, 3-diphenyl-4-(l-pyrrolidinyl)-butyl]-morpholine)

Levophenancylmorphan ((–)-3-hydroxy-N-phenacylmorphinan)

Levorphanol* ((–)-3-hydroxy-N-methylmorphinan)

Metazocine (2'-hydroxy-2, 5, 9-trimethyl-6, 7-benzomorphan)

Methadone (6-dimethylamino-4, 4-diphenyl-3-heptanone)

Methadone-Intermediate (4-cyano-2-dimethylamino-4, 4-diphenylbutane)

Methyldesorphine (6-methyl-delta-6-deoxymorphine)

Methyldihydromorphine (6-methyldihydromorphine)

3-methylfentanyl (N-(3-methyl-l-phenethyl-4-piperidyl) propionanilide)

3-methylthiofentanyl (*N* [3-methyl-l-[2-(2-thienyl) ethyl]-4-piperidyl] propionanilide)

Metopon (5-methyldthydromorphinone)

Moramide-Intermediate (2-methyl-3-morpholino-l,l-diphenylpropane carboxylic acid)

Morpheridine (1-(2-morpholinoethyl)-4-phenylpiperidine-4-carboxylic acid ethyl ester)

Morphine

Morphine Methobromide and other pentavalent nitrogen morphine derivatives, including in particular the morphine-N-oxide derivatives, one of which is Codeine-N-Oxide

Morphine-N-Oxide

MPPP (l-methyl-4-phenyl-4-piperidinol propionate (ester))

Myrophine (myristylbenzylmorphine)

Nicomorphine (3, 6-dinicotinylmorphine)

Noracymethadol ((±)-alpha-3-acetoxy-6-methylamine-4, 4-diphenylheptane)

Norlevorphanol ((–)-3-hydroxymorphinan)

Normethadone (6-dimethylamino-4, 4-diphenyl-3-hexanone)

Normorphine (demethylmorphine) or (N-demethylated morphine)

Norpipanone (4, 4-diphenyl-6-piperidino-3-hexanone)

Opium

Oxycodone (14-hydroxydihydrocodeinone)

Oxymorphone (14-hydroxydihydromorphinone)

Para-fluorofentanyl (4'-fluoro-*N*-(l-phenethyl-4-piperidyl) propionanilide)

PEPAP (l-phenethyl-4-phenyl-4-piperidinol acetate (ester)

Pethidine (l-methyl-4-phenylpiperidine-4-carboxylic acid ethyl ester)

Pethidine-Intermediate-A (4-cyano-l-methyl-4-phenylpiperidine)

Pethidine-Intermediate-B (4-phenylpiperidine-4-carboxylic acid ethyl ester)

Pethidine-Intermediate-C (l-methyl-4-phenylpiperidine-4-carboxylic acid)

Phenadoxone (6-morpholino-4, 4-diphenyl-3-heptanone)

Phenampromide (N-(l-methyl-2-piperidinoethyl)-propionanilide)

Phenazocine (2'-hydroxy-5, 9-dimethyl-2-phenethyl-6, 7-benzomorphan)

Phenomorphan (3-hydroxy-N-phenethylmorphinan)

Phenoperidine (l-(3-hydroxy-3-phenylpropyl)-4-phenylpiperidine-4-carboxylic acid ethyl)

Piminodine (4-phenyl-1-(3-phenylaminopropyl)-piperidine-4-carboxylic acid ethyl ester)

Piritramide (l-(3-cyano-3, 3-diphenylpropyl)-4-(l-piperidino)-piperidine-4-carboxylic acid amide)

Proheptazine (1, 3-dimethyl-4-phenyl-4-propionoxyazacycloheptane)

Properidine (l-methyl-4-phenylpiperidine-4-carboxylic acid isopropyl ester)

Racemethorphan ((±)-3-methoxy-N-methylmorphinan)

Racemoramide ((±)-4-[2-methyl-4-oxo-3,3-diphenyl-4-(l-pyrrolidinyl)-butyl]-morpholine)

Racemorphan ((±)-3-hydroxy-N-methylmorphinan)

Sufentanil (*N*-[4-(methoxymethyl)-l-[2-(2-thienyl)-ethyl]-4-piperidyl]-propionanilide)

Thebacon (acetyldihydrocodeinone)

Thebaine

Thiofentanyl (*N*-[1-[2-2-thienyl) ethyl-]-4-piperidyl] propionanilide)

Tilidine ((±)-ethyl-trans-2-(dimethylamino)-l-phenyl-3-cyclohexene-l-carboxylate)

Trimeperidine (1,2,5-trimethyl-4-phenyl-4-propionoxypiperidine); and

The isomers, unless specifically excepted, of the drugs in this Schedule whenever the existence of such isomers is possible within the specific chemical designation;

The esters and ethers, unless appearing in another Schedule, of the drugs in this Schedule whenever the existence of such esters or ethers is possible;

The salts of the drugs listed in this Schedule, including the salts of esters, ethers and isomers as provided above whenever the existence of such salts is possible.

Acetyldihydrocodeine

Codeine (3-methylmorphine)

Dextropropoxyphene (x-(+)-4-dimethylamino-1,2-diphenyl-3-methyl-2-butanol propionate)

Dihydrocodeine

Ethylmorphine (3-ethylmorphine)

Nicocodine (6-nicotinycodeine)

Nicodicodine (6-nicotinyldihydrocodeine)

Norcodeine (N-demethylcodeine)

Pholcodine (morpholinylethylmorphine)

Propiram (N-(1-methyl-2-piperidinoethyl)-N-2-pyridylpropionamide)

The isomers, unless specifically excepted, of the drugs in this Schedule whenever the existence of such isomers is possible within the specific chemical designation.

The salts of the drugs listed in this Schedule, including the salts of the isomers as provided above whenever the existence of such salts is possible.

SECOND SCHEDULE

[Section 2.]

LIST OF PSYCHOTROPIC SUBSTANCES

NOTE: The names printed in capitals in the left-hand column are the International Non-proprietary Names (INN). Other non-proprietary or trivial names also are given where INN has yet been recommended or when such names are commonly applied to the substances. Also under international control are the salts of the substances listed in this Schedule, whenever the existence of such salts is possible.

INN	*Other Non-Proprietary or Trivial Names*	*Chemical Name*
BROLAMFETAMINE	DOB	(±)-4-bromo-2, 5-dimethoxy-α-methylphene-thylamine
CATHINONE		(–)-(*S*)-2-aminopropiophenone
	DET	3-[2-(diethylamino) ethyl] indole

SECOND SCHEDULE—*continued*

INN	*Other Non-Proprietary or Trivial Names*	*Chemical Name*
	DMA	(±)-2,5-dimethoxy-α-methylphenethylamine
	DMHP	3-(1,2-dimethylheptyl)-7, 8, 9, 10-tetrahydro-6, 6, 9-trimethyl-6*H*-dibenzo [*b*, *d*] pyran-l-ol
	DMT	3-[2-(dimethylamino) ethyl] indole
	DOET	(±)-4-ethyl-2, 5-dimethoxy-α-phenethylamine
ETICYCLIDINE	PCE	*N*-ethyl-1-phenylcyclohexylamine
+)-LYSERGIVE	LSD, LSD-25	9, 10-didehydro-*N*, *N*-diethyl-6-methylergoline-8-β-carboxamide
	MDMA	(±)-*N*, α-dimethyl-3, 4-(methylenedioxy) phenethylamine
	mescaline	3, 4, 5-trimethoxyphenethylamine
	4-methyl*aminorex*	
	MMDA	2-methoxy-α-methyl-4, 5-(methylenedioxy) phenethylamine
	N-ethyl MDA	(±)-*N*-ethyl-α-methyl-3, 4-(methylenedioxy) phenethylamine
	N-hydroxy MDA	(±)-*N*-(α-methyl-3, 4-(methylenedioxy) phenethyl] hydroxylamine
	parahexyl	3-hexyl-7, 8, 9, 10-tetrahydro-6, 6, 9-trimethyl 6*H*-dibenzo [*b*, *d*] pyran-l-ol
	PMA	*p*-methoxy-α-methylphenethylamine
	psilocine, psilotsin	3-[2-(dimethylamino) ethyl] indol-4-ol
PSILOCYBINE		3-[2-(dimethylamino) ethyl] indol-4-yl dihydrogen phosphate
ROLICYCLIDINE	PHP, PCPY	1-(1-phenylcyclohexyl) pyrrolidine
	STP, DOM	2, 5-dimethoxy-α, 4-dimethylphenethylamin
TENAMFETAMINE	MDA	α-methyl-3, 4-(methylenedioxy) phenethylamine

SECOND SCHEDULE—*continued*

INN	*Other Non-Proprietary or Trivial Names*	*Chemical Name*
TENOCYCLIDINE	TCP	1-[1-(2-thienyl) cyclohexyl] piperidine
	tetrahydrocannabinol,	the following isomers and their stereo-chemical variants:
		7, 8, 9, 10-tetrahydro-6, 6, 9-trimethyl-3-pentyl 6*H*-dibenzo [*b*, *d*] pyran-l-ol
		(9R, 10a*R*)-8, 9, 10, 10a-tetrahydro-6, 6, 9-trimethyl-3-pentyl-6*H*-dibenzo [*b*, *d*] pyran-l-ol
		(6a*R*, 9R10a*R*)-6a, 9, 10, 10a-tetrahydro-6, 6, 9-trimethyl-3-pentyl-6*H*-dibenzo [*b*, *d*] pyran-l-ol
		(6a*R*, 10a*R*)-6a, 7, 10, 10a-tetrahydro-6, 6, 9-trimethyl-3-pentyl-6*H*-dibenzo [*b*, *d*] pyran-l-ol
		(6aR, 10a*R*)-6a, 7, 8, 10a-tetrahydro-6, 6, 9-trimethyl-3-pentyl-6*H*-dibenzo [*b*, *d*] pyran-1-ol
		6a, 7, 8, 9-tetrahydro-6, 6, 9-trimethyl-3-pentyl-6*H*-dibenzo [*b*, *d*] pyran-l-ol
		(6a*R*, 10a*R*)-6a, 7, 8, 9, 10, 10a-hexahydro-6,6-dimethyl-9-methylene-3-pentyl-6*H*-dibenzo [*b*, *d*] pyran-l-ol
	TMA	(±)-3, 4, 5-trimethoxy-α-methylphenethylamine
CLOBAZAM		7-chloro-1-methyl-5-phenyl-1*H*-1, 5-benzodiazepine-2,4 (3*H*, 5*H*)-dione
CLONAZEPAM		5-(*o*-chlorophenyl)-1, 3-dihydro-7-nitro-2*H* 1, 4-benzodiazepine-2-one
CLORAZEPATE		7-chloro-2,3-dihydro-2-oxo-5-phenyl-1*H*-1,4-benzodiazepine-3-carboxylic acid
CLOTIAZEPAM		5-(*o*-chlorophenyl)-7-ethyl-1, 3-dihydro-l-methyl-2 *H*-thieno [2, 3-*e*]-1, 4-diazepine-2 one

SECOND SCHEDULE—*continued*

INN	*Other Non-Proprietary or Trivial Names*	*Chemical Name*
CLOXAZOLAM		10-chloro-11b-(*o*-chlorophenyl)-2, 3, 7, 11b-tetrahydrooxazolo-[3, 2-*d*] [1, 4] benzodiazepine-6 (5*H*)-one
DELORAZEPAM		7-chloro-5-(*o*-chlorophenyl)-1, 3-dihydro-2*H*-1, 4-benzodiazepine-2-one
DIAZEPAM		7-chloro-1, 3-dihydro-1-methyl-5-phenyl-2*H*-1, 4-benzodiazepine-2-one
ESTAZOLAM		8-chloro-6-phenyl-4*H*-*s*-triazolo [4, 3-*a*] [1, 4] benzodiazepine
ETHCHLORVYNOL		1-chloro-3-ethyl-l-penten-4-yn-3-ol
ETHINAMATE		1-ethynylcyclohexanol carbamate
ETHYL		ethyl 7-chloro-5-(*o*-fluorophenyl)-2, 3-dihydro-
LOFLAZEPATE		2-oxo-1*H*-1,4-benzodiazepine-3-carboxylate
ETILAMFETAMINE	*N*-ethylamphetamine	N-ethyl-*a*-methylphenethylamine
FENCAMFAMIN		N-ethyl-3-phenyl-2-norbornanamine
FENPROPOREX		(±)-3-[*a*-methylphenethyl) amino] propionitrile
FLUDIAZEPAM		7-chloro-5-(*o*-fluorophenyl)-1, 3-dihydro-l-methyl-2*H*-1, 4-benzodiazepine-2-one
FLUNITRAZEPAM		5-(*o*-fluorophenyl)-1, 3-dihydro-1-methyl-7-nitro-2*H*-1, 4-benzodiazepine-2-one
FLURAZEPAM		7-chloro-1-[2-(diethylamino) ethyl [-5-(*o*-fluoro-phenyl)-1, 3-dihydro-2*H*-1, 4-benzodiazepine-2-one
HALAZEPAM		7-chloro-1, 3-dihydro-5-phynyl-1-(2, 2, 2-trifluoroethyl)-2*H*-1, 4-benzodiazepine-2-one
HALOXAZOLAM		10-bromo-11b-(*o*-fluorophenyl)-2, 3, 7, 11b-tetrahydrooxazolo [3, 2-*d*][1,4] benzodiazepine-6(5*H*)-one

SECOND SCHEDULE—*continued*

INN	*Other Non-Proprietary or Trivial Names*	*Chemical Name*
KETAZOLAM		11-chloro-8, 12b-dihydro-2, 8-dimethyl-12b-phenyl-4*H*-[1, 3] oxazino [3, 2-*d*] [1, 4] benzodiazepine-4, 7 (6*H*)-dione
LEFETAMINE	SPA	(–)-*N*, *N*-dimethyl-1, 2-diphenylethylamine
LOPRAZOLAM		6-(*o*-chlorophenyl)-2, 4-dihydro-2 [(4-methyl-1-piperazinyl) methylene]-8-nitro-1*H*-imidazo [1, 2-*a*] [1, 4] benzodiazepine-1-one
LORAZEPAM		7-chloro-5-(*o*-chlorophenyl)-1, 3-dihydro-3-hydroxy-2*H*-1, 4-benzodiazepine-2-one
LORMETAZEPAM		7-chloro-5-(*o*-chlorophenyl)-1, 3-dihydro-3-hy-rdoxy-l-methyl-2*H*-1, 4- benzodiazepine-2-one
MAZINDOL		5-(*p*-chlorophenyl)-2, 5-dihydro-3*H*-imidazo [2, 1-*a*] isoindol-5-ol
MEDAZEPAM		7-chloro-2, 3-dihydro-l-methyl-5-phenyl-1*H*-1, 4-benzodiazepine
MEFENOREX		N-(3-chloropropyl)-α-methylphenethylamine
MEPROBAMATE		2-methyl-2-propyl-1-3-propanediol, dicarbamate
METHYLPHENO-BARBITAL		5-ethyl-1-methyl-5-phenylbarbituric acid
METHYPRYLON		3, 3-dithyl-5-methyl-2, 4-piperidine-dione
MIDAZOLAM		8-chloro-6-(*o*-fluorophenyl)-1-methyl-4*H*-imidazol [1, 5-*a*) [1, 4] benzodiazepinee
NIMETAZEPAM		1, 3-dihydro-1-methyl-7-nitro-5-phenyl-2*H*-1, 4-benzodiazepine-2-one
NITRAZEPAM		1, 3-dihydro-7-nitro-5-phenyl-2*H*-1, 4-benzodiazepine-2-one
NORDAZEPAM		7-chloro-1, 3-dihydro-5-phenyl-2*H*-1, 4-benzodiazepine-2-one
OXAZEPAM		7-chloro-1, 3-dihydro-3-hydroxy-5-phenyl-2*H*-1, 4-benzodiazepine-2-one

SECOND SCHEDULE—*continued*

INN	*Other Non-Proprietary or Trivial Names*	*Chemical Name*
OXAZOLAM		10-chloro-2, 3, 7, 11b-tetrahydro-2-methyl-11b-phenyloxazolo [3, 2-*d*] [1, 4] benzodiazepine-6 (5*H*)-one
PERMOLINE**		2-amino-5-phenyl-2-oxazolin-4-one (=2-*imino*-5-phenyl-4-oxazolidinone)
PHENDIMETRAZINE		(+)-(*SS*, 3*S*)-3, 4-dimethyl-2-phenylmorpholine
PHENOBARBITAL		5-ethyl-5-phenylbarbituric acid
PHENTERMINE		α, α-dimethylphenethylamine
PINAZEPAM		7-chloro-1, 3-dihydro-5-phenyl-1-(2-propynyl)-2*H*-1, 4-benzodiazepin-2-one
PIPRADROL		α, α-diphenyl-2-piperidinemethanol
PRAZEPAM		7-chloro-1-(cyclopropylmethyl)-1, 3-dihydro-5-phenyl-2*H*-1, 4-benzodiazepin-2-one
PROPYLHEXEDRINE		*N*, α-dimethylcyclohexaneethylamine
PYROVALERONE		4'-methyl-2-(1-pyrrolidinyl) valerophenone
SECBUTABARBITAL		5-*sec*-butyl-5-ethylbarbituric acid
TEMAZEPAM		7-chloro-1,3-dihydro-3-hydroxy-1-methyl-5-phenyl-2*H*-1, 4-benzodiazepine-2-one
TETRAZEPAM		7-chloro-5-(1-cyclohexen-1-yl)-1, 3-dihydro-1-methyl-2*H*-1, 4-benzodiazepin-2-one
TRIAZOLAM		8-chloro-6-(o-chlorophenyl)-1-methyl-4*H*-*s*-triazolo [4, 3-*a*) [1, 4] benzodiazepine
VINYLBITAL		5-(1-methylbutyl)-5-vinylbarbituric acid
AMFETAMINE		(±)-2-amino-l-phenylpropane
DEXAMFETAMINE		(±)-2-amino-l-phenylpropane
FENETYLLINE		*dl*-3, 7-dihydro-1, 3-dimethyl-7-(2-((1-methyl-2-phenylethyl) amino) (ethyl)-1H-purine-2, 6-dione

SECOND SCHEDULE—*continued*

INN	*Other Non-Proprietary or Trivial Names*	*Chemical Name*
LEVAMFETAMINE		*l*-α-methylphenethylamine
	levomethamphetamine	*l-N*, α-dimethylphenethylamine
MECLOQUALONE		3-(*o*-chlorophenyl)-2-methyl-4 (3*H*)-quinazolinone
METHAMFETAMINE		(+)-2-methylamino-1-phenylpropane
METHAQUALONE		2-methyl-3-o-tolyl-4 (3*H*)-quinazolinone
METHYLPHENIDATE		2-phenyl-2-(2-piperidyl) acetic acid, methyl ester
PHENCYCLIDINE	PCP	1-(1-phenylcyclohexyl) piperidine
PHENMETRAZINE		3-methyl-2-phenylmorpholine

The salts of the substances listed in this Schedule whenever the existence of such salts is possible.

AMOBARBITAL		5-ethyl-5-(3-methylbutyl) barbituric acid
BUTALBITAL		5-allyl-5-isobutylbarbituric acid
CATHINE		*d-threo*-2-amino-1-hydroxy-1-phenylpropane
CYCLOBARBITAL		5-(1-cyclohexen-l-yl)-5-ethylbarbituric acid
GLUTETHIMIDE		2-ethyl-2-phenylglutarimide
PENTAZOCINE		1, 2, 3, 4, 5, 6-hexahydro-6, 11-dimethyl-3-(3-methyl-2-butenyl)-2, 6-methano-3-benzazocin-8-01
PENTOBARBITAL		5-ethyl-5-(1-methylbutyl) barbituric acid
SECOBARBITAL		5-allyl-5-(1-methylbutyl) barbituric acid

The salts of the substances listed in this schedule whenever the existence of such salts is possible.

ALLOBARBITAL	5, 5-diallylbarbituric acid
ALPRAZOLAM	8-chloro-1-methyl-6-phenyl-4*H*-β-triazolo [4, 3-*a*] [1, 4] benzodiazepine
AMFEPRAMONE	2-(diethylamino) Propiophenone
BARBITAL	5, 5-diethylbarbituric acid
BENZPHETAMINE	*N*-benzyl-*N*, α-dimethylphenethylamine

SECOND SCHEDULE—*continued*

INN	*Other Non-Proprietary or Trivial Names*	*Chemical Name*
BROMAZEPAM		7-bromo-1, 3-dihydro-5-(2-pyridyl)-2*H*-1, 4-benzodiazepine-2-one
BUTOBARBITAL		5-butyl-5-ethylbarbituric acid
CAMAZEPAM		7-chloro-1, 3,-dihydro-3-hydroxy-1-methyl-5-phenyl-2*H*-1, 4-benzodiazepine-2-one dimethylcarbamate (ester)
CHLORDIAZEPOXIDE		7-chloro-2-(methylamino)-5-phenyl-3*H*-1, 4-benzodiazepine-4-oxide

THIRD SCHEDULE

[Section 2.]

PROHIBITED PLANTS

1. Cannabis.
2. Coca bush.
3. *Papaver* somniferum (opium poppy).
4. *Papaver* setigerum.