Cape Peninsula
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**THE EFFECTS OF BUDGETARY ALLOCATION ON SOUTH AFRICAN POLICE SERVICE CRIME PREVENTION STRATEGY IN THE WESTERN CAPE, SOUTH AFRICA**


**by**


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**DECLARATION**

I, Mxolisi Wilford Mdodi, declare that the contents of this dissertation represent my own unaided work, and that the thesis/dissertation has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

**Signed**                                                                                      **Dated:  2022-01-17**

## ABSTRACT

The high crime rate in South Africa affects the economic well-being of the country. Reduction in crime depends on many factors, one of which is the resources allocated for efforts to reduce crime. Economic growth of the country is indirectly affected by the level of crime since the country's level of growth is used by credit rating agencies in deciding a country's measure of credit worthiness. Allocation of financial resources thus plays a significant role in the fight against crime. However, in recent times, the South African Police Services (SAPS) budgetary allocation towards crime reduction has not matched the increasing cost of crime prevention in relation to the country's population. The police play a significant role in preventing and investigating crime. For the police to achieve this objective, adequate funding is essential.

The study objective to ascertain the trend of SAPS budget allocation in the past ten years in view of increasing population and how it affects the crime prevention strategy.
This study investigated the impact of budget constraints on crime prevention strategy using a mixed method approach. A questionnaire was used to collect quantitative data, which were analysed using SPSS and XLSTAT, while semi-structured interviews were used to collect qualitative data. The population consisted of SAPS officers holding the ranks of constables, sergeants, warrant officers and captains, at Cape Town Central SAPS along with senior Western Cape provincial managers. In all, 50 officers and 2 senior managers responsible for budget and crime prevention participated in the study.

The findings indicated that budgetary allocation to SAPS has been relatively constant when the annual rate of inflation is taken into consideration, especially for the last decade. However, there was a significant increase in the budget allocation to SAPS for the Western Cape in the 2009/2010 fiscal year (29%), suspected to be in preparation for the hosting of the FIFA World Cup in South Africa. The increase in budgetary allocation was associated with a moderate increase in the success rate in crime reduction. This study identified the need to increase the annual budgetary allocation to SAPS in order to address personnel shortages, police training and the use of technology in the Western Cape Province in order to strengthen crime prevention.

The study recommends regular increases in police budgetary allocation that should reflect annual increases in the inflation rate and population growth and should cater for capital expenditure in modern technology deployed to combat crime.

**ACKNOWLEDGEMENTS**

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## ACRONYMS

| | |
|---|---|
| ATF | Automatic Face Recognition |
| AOP | Annual Operation Plan |
| APP | Annual Performance Plan |
| BWC | Body-Worn Camera |
| CCTV | Closed Circuit Television |
| CoCT | City of Cape Town |
| Enatis | Electronic National Traffic Information System |
| NCPS, 1996 | National Crime Prevention Strategy, 1996 |
| LRP | Licence Plate Recognition |
| SAPS | South African Police Services |
| SAPS, PHO | South African Police Services Provincial Head Office |
| SPSS | Statistics Package for Social Sciences |
| SANDF | South African National Defence Force |
| TMS | Technology Management Services |
| UK | United Kingdom |
| WCG | Western Cape Government |

# CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY

## 1.1 Introduction

Attainment of the goals of the government's National Development Plan 2030 and improving the prospects of South Africa's economic growth, depend on the support of government departments and government agencies like the South African Police Service. Safety in our society is one of the key goals of the National Development Plan 2030 and the police have the responsibility of providing a safe environment to enable citizens go about their legitimate businesses without fear (SAPS Annual Performance Plan, 2018/2019). Since the plan of the government is to increase economic growth, which depends on a safe environment, safety has become one of the government's priorities. Economic growth leads to an increase in employment opportunities for citizens, along with community development and enables the country to compete favorably in the global economy in terms of production of goods and services. Currently, the country depends heavily on the importation of heavy machinery, vehicles, automobile parts and related services from European countries and China (Statistics SA, 2018). These goods and services are important for developing the economy.

The tourism sector is one of the biggest contributors to South Africa's economic growth. It created 1, 5 million jobs in the country and added R4.25 billion to the gross domestic product (GDP) in 2017 (Smith, 2018). The Western Cape Province is a leading tourist destination and Cape Town has been attracting tourists to the province because of its outstanding attractions (such as Table Mountain and the beautiful beaches) which, in turn, create jobs. However, the influx of tourists and people to the Western Cape, the City of Cape Town, in particular, has resulted in an increasing crime rate (BBQ, 2019) that threatens the tourism industry and necessitates the strengthening of SAPS Crime Prevention Strategy (Mudzanani, 2017).

In addition to the Western Cape's growing population and influx of tourists to Cape Town, there is internal migration of citizens from poor rural provinces (like the Northern Cape and Eastern Cape) to the province in search of employment opportunities, which puts pressure on infrastructure and SAPS crime control and prevention efforts. It is estimated that about 300 000 people come to Cape Town annually from other provinces. The population of the Western Cape is estimated to have increased by 7.5% or 6.3 million people in 2016 (Statistics SA, 2016). Infrastructure development in the province also contributes to job creation because of foreign investment and population growth (Legg, 2013; Statistics SA, 2017).

Big companies in the hospitality and resorts industry, as well as property group companies, continue to invest in infrastructure and the construction of new malls or development of existing ones, construction of new hotels and casinos, including the development of existing infrastructure to meet international standards. The high value of property and high demand for houses in the Western Cape encourages the middle class to invest in property in places like Hout Bay and Camps Bay, where construction runs into millions of rands (Wesgro, 2016).

The government has also invested heavily in constructing houses and infrastructure like schools in Western Cape townships. All these economic activities have attracted job seekers from neighboring countries like Zimbabwe and Mozambique as well as investors from the African continent and beyond. The Western Cape Province has private and public schools that provide high quality education, and institutions of higher learning that have attracted the youth outside the province and from neighbouring countries. Migrant workers bring skills and enormous contribution to the economic activities of the Western Cape. All these economic activities result in influx of people into the province, which increases the already growing population. These economic opportunities also attract criminals who, in turn, contribute to high crime rate in the province (BBQ, 2019).

The government's response to crime resulted in designing of the National Crime Prevention Strategy (1996), aimed at controlling and reducing crime to an acceptable minimum in the country through the South African Police Service. The incidence of crime does not only keep communities in fear but poses a significant risk to the democratic institutions of government. As a result, the government must engage with communities and justice cluster departments, including the Department of Social Development (NCPS, 1996).

The National Crime Prevention Strategy (1996) clearly outlines the role of provincial governments and communities and the fact that prevention of crime should not be the responsibility of only the police (NCPS, 1996). Kruger et al. (2016) suggested that the community must step forward taking their role in preventing crime as guided by the NCPS (1996). The Community Crime Prevention Strategy (CPS) was planned with a clear intention to prevent crime. This strategy brings together role-players to identify crime and collectively deal with it. According to Kruger et al. (2016), the role of municipalities is to provide close-circuit television (CCTV), support street design, have signage warnings about crime and provide streetlights, while the police do patrols to enforce the law and train response teams. This strategy acknowledges the role of other role-players, but the police play a critical role in preventing crime.

In line with national government strategy, SAPS cost containment and budget constraints tend to affect the workforce and recruitment of new trainees, which negatively affects crime prevention efforts. The budget constraints also negatively affect transport equipment (SAPS Operation Plan, 2018/2019). The use of technology in fighting crime plays a significant role, but shortage of personnel always hampers crime prevention efforts. The use of drones and CCTV technology requires people on the ground who can respond to incidents of crime (Swart, 2018). Although Cape Town central business district has many CCTV cameras in residential and commercial areas, it experienced a high number of reported crimes (15,422) in 2017/2018 (Swart, 2018), which suggests despite the huge amount of money allocated to the police for crime prevention efforts, it seems crime prevention strategies are still not effective.

## 1.2    Research problem statement

Crime statistics measure the performance and effectiveness of SAPS crime prevention efforts to reduce the incidence of crime. Increased crime between 2013 and 2018 indicates that efforts of the police to reduce crime, including serious and violent crimes, seem not to be having the intended results (SAPS Crime Statistics, 2017/18). The biggest assets the police use to prevent crime are personnel and resources allocated to fight crime, according to the South African Police Service, an admission that policing demands high labour to achieve the desired results. Crime has been rising, according to Crime Stats (SAPS Crime Statistics, 2017/18), while the SAPS has been working to reduce the workforce due to budget constraints, instead of increasing it to deal with increasing crime. This is because all government departments were to reduce their workforce as directed, because their budgets were considered bloated. Employee compensation amounts to 77,4% of SAPS budget (R229, billion) (SAPS Operation Plan, 2018-2019). As a result, during the budget hearing of 2016, SAPS management made a commitment in Parliament to reduce personnel. The police-population ratio is currently higher than the United Nations prescribed standard of 1:220, that is, one police officer to 220 people. In South Africa, the current ratio is 1:385 or one police officer to 385 people (SAPS Crime Stats, 2017/2018), which is 75% above the United Nations' standard. During the SAPS briefing in 2018 to the Western Cape provincial parliament, the police also acknowledged having a shortage of personnel in the Western Cape and indicated that shortage of personnel hinders all efforts at implementing the crime prevention strategy of SAPS (Western Cape Crime Statistics, 2017/18).

Due to budget constraints, there is currently also insufficient CCTV coverage/equipment to assist in monitoring, preventing or apprehending perpetrators of crime in various parts of the province such as Khayelitsha, Nyanga and Mitchells Plain. For the SAPS to achieve a better level of crime

prevention, there is a need to have more police officers, more marked police cars and police centres so that the police will be visible and accessible to communities they serve (SAPS Annual Performance Plan 2017-2018; Kruger et al., 2016)

The CCTV cameras installed by the City of Cape Town Municipality require the police to monitor and respond to incidents of crime picked up by the cameras on the ground, and maintain visibility in areas with potential of crime commission to prevent crime from happening. The CCTV cameras and gunfire detection system (shot spotter) identify perpetrators of crime at the time of commission, but a quick response by police to apprehend suspects plays a big role in prevention and helps to improve confidence of the public in the police. Thus, quick response of the police is considered a key focus in crime prevention and reduction in serious crimes (SAPS Annual Report 2017-2018). The ratio of vehicles to personnel in the Western Cape currently stands at 3:21 (20230 personnel over 6213), which is the second lowest in the country after North West Province (SAPS Annual Report, 2017-2018).

The shortage of resources and workforce in the Western Cape has been the subject of engagement between the Western Cape Department of Community Safety and the SAPS as well as the Minister for Police. According to reports, there is a shortage of police officers all over the country, but the Western Cape is considered to be in a worse situation compared with other provinces. Shortage of personnel has a huge effect on the high crime rate in the Western Cape Province (Lepule, 2018). According to Felix (2018), the Western Cape SAPS does not only lack personnel, but also lacks training in firearms. There is also a shortage of ''ammunition", which is important equipment for police officers. Resource allocation should match the strategic direction of the SAPS. Any strategy needs evaluation by matching up expected and achieved results and any deviation should be investigated (David & David, 2015).

Shortage of workforce and resources to carry out policing duties leads to a huge workload on existing personnel, which demotivates the current personnel. Demotivated staff members cannot be productive, the result of which is service delivery failure at the stations (Lepule, 2018). Any means to continue preventing crime will always be fruitless as long as the people who are supposed to help in achieving the organisation's goals are negative. Susan et al. (2012) suggest that when police officers are demotivated the community suffers because they will not get good services. According to Ghaffari et al. (2017), motivated employees' performance improves, but when they are demotivated performance declines. Some factors that motivate employees are salary and promotion. A motivated workforce is very important to achieve the purpose of its existence. The Minister of Finance has emphasised that government needs motivated, competent

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and effective employees (Minister of Finance Budget Speech, 2020).

According to Dolley (2017), police operations are critical in reducing crime. Almost no police station could conduct operations unless assisted by specialized units like the Tactical Response Team because of shortage of resources at the station level, including a shortage of personnel – but these units also have their own responsibilities.

The increasing crime rate has a negative impact on the country's economy as it discourages investment in the country, including foreign direct investment, which should bring billions of Rand into the country's economy (Brown & Hibbert, 2017). President Cyril Ramaphosa (CNBC Africa, 2018) embarked on roadshows with the assistance of his investment envoys, travelling around the world to invite investors to invest in South Africa. The concern of most of potential investors is the high crime rate and ineffective efforts to reduce it. Credit rating agencies also consider crime as one of the determining factors in deciding whether a country is worthy of credit or a risky investment destination (Barber, 2014:34-49). The high crime rate therefore threatens economic growth, which may lead to current investors de-investing. When investors lose interest in a country, the cost of living becomes high, the consumer price index goes up and unemployment increases.

## 1.3   Research aim

The aim of the study is to explore the effects of SAPS budgetary allocation on the SAPS crime prevention strategy in Cape Town.

## 1.4   Objectives

In line with this aim, the objectives are to:

i.   Ascertain the trend of SAPS budget allocation over the past decade (2009-2019) in view of the increasing population in Cape Town.

ii.   Examine the effect of budgetary allocation on the SAPS police recruitment exercise

iii.   Investigate the effect of budgetary allocation on SAPS's crime prevention strategy in terms of personnel training and acquisition of modern technology

iv.   Examine the effect of budgetary allocation on SAPS's crime prevention strategy in view of the increasing population in Cape Town, Western Cape.

v.   Analyse the relationship between SAPS' resources or budget allocation and the UN-recommended guideline

### 1.5 Research questions

i. What is the trend of SAPS budgetary allocation over the past decade in view of the increasing population in Cape Town?

ii. How has the budget trend affected SAPS recruitment of police personnel in view of cost containment by South African national government? How has the budget allocation trend affected SAPS police recruitment exercise?

iii. How has the budgetary allocation affected crime prevention strategy in SAPS in terms of police personnel training and acquisition of modern technology to combat crime?

iv. How has the budgetary allocation affected the SAPS crime prevention strategy in view of increasing population in Cape Town, Western Cape?

v. How well are the resources available to the SAPS aligned to the United Nations recommended guidelines?

## 1.6 Research hypotheses

Three hypotheses were stated in terms of null hypothesis that were to be either rejected or confirmed based on statistically significant impact test of path modeling to be estimated using the partial least square structural equation model.

i. $H_0$: Budgetary allocation does not significantly affect crime prevention strategy in the area of the police recruitment exercise.

ii. $H_0$: Budgetary allocation does not significantly affect crime prevention strategy in terms of personnel training and acquisition of modern technology.

iii. $H_0$: Budgetary allocation does not significantly affect crime prevention strategy on how to handle increased population.

## 1.7 Research design and methodology

Brynard et al. (2014: 36) define research methodology as the "how" of collection of data   and processing within the framework of the research process." The research has two research approaches, namely: qualitative and quantitative research.

### 1.7.1   Mixed Method

This study used mixed method, which involved qualitative and quantitative research methods, the reason being to ensure that the detailed information that could not obtained using the questionnaire would be obtained using qualitative interviews.

Athanasou et al. (2012:88) describe a mixed methods approach as research that uses both qualitative and quantitative approaches in one study. The authors (2012:71) further define quantitative research as "a formalized systematic, objective and nomothetic approach where numerical data and statistical analysis are used to generalize results from sample to population". Further, citing Merrian (2009), Athanasou et al. (2012:72) state that: "qualitative research is interested in understanding how people interpret their experience, how they construct their worlds and what meaning they attribute to their experiences". This study used a mixed method approach, which allows the use of different research approaches and research instruments to ensure reliable research outcomes. The benefit of using mixed methods is that one method can refute or expand results of the other method (Athanasou et al., 2012:129).

### 1.7.2   Research design

A research design is defined as a ''procedure or guideline for doing something under certain conditions." (Athanasou et al. (2012:81). It facilitates planning and implementing of a research plan. The aim of the research design is to ensure the results of the research are credible. Farquhar (2012:5) defines case study research as ''empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context especially when boundaries between phenomenon and context are clearly evident."

### 1.7.3   Population

Ghauri, & Grønhaug (2005:147) define population as a "universe of units from which samples are to be selected, it might be people, cities or nations". The study used two populations: the first population consisted of members of the South African Police Service employed under the Police Act 68 of 1995 working at Cape Town Central SAPS Visible Policing Unit and performing crime prevention duties. These members are in the ranks of constable, sergeant, warrant officer and captain. The total number of members performing crime prevention duties is 354. The total number of all police officers at Cape Town Police station, including those in visible policing, detective personnel and support personnel is 510. The second population was senior managers working at the Western Cape Provincial SAPS head office, Cape Town, in crime prevention and finance environment. Two senior managers are responsible for Western Cape budget and two senior

managers are responsible for crime prevention however senior manager responsible for crime prevention was not available for the interview. One senior manager interviewed.

### 1.7.4 Sampling

For the quantitative aspect of the study, simple random sampling method used for the first population (officers in ranks of constable, sergeants, warrant officer and captain), which afforded equal opportunity for all SAPS members in the target population to be selected (Quinlan, 2011). Purposive sampling is a technique where a researcher uses his own judgment on whom to include in the study. In this study, the contribution of the senior manager responsible for budget at SAPS Provincial Head Office Finance Section in the Western Cape SAPS head office obtained. They constituted the sample for the qualitative aspect of the study. According to SAPS Western Cape Annual Report 2017-2018, there are 19 987 SAPS members in the Western Cape. To collect data, the study targeted 50 police officers who hold ranks of constables, sergeants, warrant officers and captains at the Cape Town Central SAPS station using a questionnaire and conducted an interview involving one senior manager.

### 1.7.5 Data collection instrument

 Athanasou et al. (2012:89) define an interview as "a data collection method in which a researcher asks a respondent open-ended questions to learn about ideas, beliefs, views and opinions. And a semi-structured interview is a type of interview that is not fixed or fully free and commonly viewed as flexible". The semi-structured interview allows deviation from prepared questions. As a result, it gives greater opportunity to get more information from the respondent than a structured interview (Bryman & Bell, 2015:212-214). In a structured interview, the interview questions follow a certain fixed order and avoid deviation. A semi-structured interview is more reliable than a structured interview as follow-up questions can be asked, which provide an opportunity to obtain more information from the respondent. The questionnaire is another data collection instrument that is reliable, convenient and self-administered by respondents.

### 1.7.6 Data coding and analysis

The data collected for this study were analyzed using different data analysis techniques, tools and software such as SPSS for quantitative data, and thematic content analysis for qualitative data.

### 1.8 Significance of the study

The study is significant in a number of ways. First, the budgeting process could help the South African Police Service to achieve more in bringing services to the community with fewer resources. Secondly, the public could benefit from the findings of this study through implementation of

recommendations by police management. Thirdly, the study could assist the SAPS in strategic planning and allocation of funds from the allocated budget. Further, it could assist Parliament and National Treasury in allocating funds to the police. Additionally, it could assist the Department of Police and top police management in their financial planning priorities. Finally, it could contribute to the body of knowledge in security studies.

## 1.9    Scope and limitations of the study

The study covered 2007 to 2020 and relied on information available in the public domain, information submitted to Parliament through reporting and accountability as well as data collected from respondents. Data from documents, interviews and the questionnaire collected in Cape Town may not be sufficient for the study to generalise the results for the whole SAPS.

## 1.10    Preliminary literature review

In this study, budget is defined as ''the process through which government makes choices about competing priorities that need to be funded for services to be delivered'' (Radebe, 2017:3). The reason for government budgeting is to spend funds in line with organizational or departmental priorities. Scarcity of resources is the main reason businesses and government institutions must set priorities. In addition to scarcity of resources, high government spending, corruption, mismanagement, and poor planning are some of the causes of budget constraints (Brown, 2018). The literature indicates that these budget constraints are not unique to the SAPS; it affects other policing agencies across the world and the South African Defence Force.

### 1.10.1  SAPS budgetary allocation

The SAPS' budget allocation is regulated by the Public Finance Management Act of 1999 (PMFA), a Division of the Revenue Act of 2012 and Treasury Regulations. The PMFA regulations require institutions to account for money they receive from the state. According to Radebe (2017:9-18), "the institution must have a medium term expenditure framework (MTEF) that shows (i) Analysis of baseline, (ii) Achievement that could be achieve without spending, (iii) Previous performances which both involve finance and do not involve finance".

Radebe (2017:9-18) further explains that "SAPS must then report to National Treasury a 5 years' strategic plans, annual plan, approved budget, spending projections, quarterly performance reports, annual reports, program plans. These reporting mechanisms assist National Treasury to assess the performance of the SAPS". The police minister and top leadership of the police carry this responsibility in Parliament during the budget vote speech and before the Standing Committee on Police in Parliament.

## 1.10.2 SAPS budget allocation trends

The budget allocation for SAPS has increased over the years and SAPS has increased the allocation for crime prevention initiatives. The allocation for the programme 'Visible Policing' increased to 38% of the R52.5 billion of the police budget allocated (in 2010), of which crime prevention is a sub-programme (SAPS budget, 2010). The budget allocation to the crime prevention programme has increased in the past 10 years to R46 872.3billion (SAPS Annual Performance Plan, 2017-2018).

## 1.10.3 Cost containment of South African government

Governments around the world are embarking on cost-saving efforts that should however not compromise service delivery (Maqhina, 2019). Rating agencies have cited the high public service employees' wage bill as one of the drivers of high inflation (Niselow, 2018). The South African government has identified employees' compensation as the biggest cost driver and embarked on efforts to save R30 billion in three years by giving severance and early retirement packages to public service employees who are between 55 and 60 years of age. As a government department, SAPS is part of this cost-saving (Paton, 2018). However, the departure of experienced personnel from the organization has left inexperienced employees who still need mentoring and guidance to do their work effectively.

The cost-reduction embarked on by the South African government is similar to cost-reduction efforts the Canadian government has initiated to curb fiscal expenses and improve the functioning of the public service. The perception is that wages of public employees are the biggest cost driver in the public service and reducing the workforce will afford the state an opportunity to redirect and re-prioritise resources (Loriggio, 2018).

## 1.10.4 Effect of budgetary allocation on SAPS crime prevention strategy regarding personnel training and acquisition of modern technology

The reduction in the police budget has led to high crime rates and poor, or lack of, attendance to community crime-related complaints and to a shortage of ammunition for SAPS members to participate in annual firearm proficiency assessments (Cruywagen, 2019).

## 1.10.5 Alignment between resources and population growth

According to Simelane et al. (2017:8), the SAPS has a tool known as The Human Resource Requirement System meant to analyse all issues that might hinder the police management when determining resources for police stations. Key issues include population size, its nature and its movement, the size of the police station and the places hosting events such as convention centres,

stadiums and universities. Simelane et al. (2017:32) further argue that because of scarce resources resulting from budget constraints, police stations are unable to perform their functions to full capacity, as they must use available resources to cope with their day-to-day operations.

According to Ehlers and Lazenby (2010), for a strategy to be successful the budget, resources, compensation of employees and the way things are done in an organization must be aligned to the chosen strategy and everyone in the organization must know about how the strategy and must be committed to achieve it. For the organization to be successful there must be a link between performance and the reward system. In the crime prevention strategy, when organizational reward systems are aligned to the strategy, officers will not just work because they are on duty. They will work to achieve the organization's objectives as well as for incentives linked to achieving the strategy.

### 1.10.6 The effect of budgetary allocation on SAPS crime prevention strategy in view of increasing population in Cape Town

According to the reviewed literature, the budget cut does not only affect SAPS, but other law enforcement agencies as well as the army. Army personnel deployed to the borders play a complementary role in supporting the work of the SAPS.

The Defence Force has a responsibility to protect the borders of the country so that citizens are safe. The work of the Defence Force at the borders complements the crime prevention efforts of the police. When borders are not guarded, criminals from neighbouring countries come into South Africa, commit crimes and leave as they wish (Maqhina, 2019). As a result, it is difficult for the police to prevent such crimes or investigate them, as the criminals might be untraceable. This does not suggest that our brothers and sisters from the neighbouring countries only come to South Africa to commit crime and leave or are a threat of any sort. It merely shows the impact of budget shortage on other government departments that play a complementary role to the SAPS and the importance of the SANDF's role in supporting SAPS crime prevention efforts.

Budget constraints not only affect the functioning of government institutions because of shortage of the funds, but risk reversing achievements gained in the past, further threatening the future functioning of the SAPS. In the normal operation of any institution, inability to fund all activities can happen for a short period, but the impact still needs mitigation.

### 1.11    Dissertation outline

The dissertation consists of five chapters. Chapter 1 provides the introduction, problem statement

and research objectives. Chapter 2 focuses on the literature review, while Chapter 3 discusses research methodology and research design. Chapter Four deals with data analysis and Chapter 5 concludes the dissertation and provides recommendations.

## 1.12   Ethical considerations

All protocols relating to research ethics were followed. Written permission to conduct the study was obtained from the SAPS and ethics clearance from the Ethics Committee of the Faculty of Business and Management Sciences. For informed consent, respondents were informed of the purpose of the study and the processes to be followed for interviews and completion of the questionnaire.

Participants were assured they would not be misled or exposed to any harm. Participants were also informed their participation was purely voluntary and they could withdraw at any time during the data collection or decline from responding to any question they did not wish to. Thus, the consent of all participants was sought and obtained. To achieve confidentiality and anonymity, the identity of participants was guaranteed not be revealed at any time. As such, no statement or view expressed by participants is attributed to any identifiable individual. Further, data collected were used for study purposes only. Finally, data collected was kept confidential and will remain so even after publication of the study results.

## 1.13   Chapter summary

This chapter introduced the research, outlined the problem statement, indicated the aim and objectives, method, and research questions, aim and objectives, stated the research hypotheses, briefly discussed the research design and methodology, indicated the significance of the study, provided a preliminary literature review and chapter outline, and addressed ethical issues. The next chapter discusses the theory and reviews the literature related to the study.

# CHAPTER TWO: LITERATURE REVIEW

## 2.1    Introduction

In the previous chapter, several introductory issues were discussed, including the problem statement. Further, the aim, method, objectives of the study, research questions, research design and methodology, the significance of the study, a brief literature review, an outline of the chapters and ethical considerations. Chapter 1 therefore laid the foundation by outlining the background to the study, as well as providing an insight into the research design and methodology. This chapter deals with the literature review, aimed at examining the perspectives of researchers on similar topics with a view to better understand it.

## 2.2.1    Theory Review

Budget has been defined by different authors and different budget theories has been developed over the years but Key's theory's normative question regarding how scarce resources ought to be distributed to unlimited demands its still dominant theory. And Walker's theory of helping in decisions for allocating government expenditures (Khan and Hildreth, 2002). Both theories are relevant to this study.  The research questions in this study aimed to evaluate how effective SAPS distribute its scarce financial resources to achieve its primary mandate prevention of crime. Henry (2018: 262) described Planning-Programming-Budgeting System as a "method of resource allocation designed to improve governmental efficiency and effectiveness by establishing long-range planning goals, analyzing the costs and benefits of alternative programs that would meet these goals, and articulating programs as budgetary and legislative proposals and long-term projections"

## 2.2.2    Strategic management process

Different authors give different definitions to strategic management but agree on linking it to planning and tracing its origin to the military. "Strategic management is defined as art and science of formulating, implementing, and evaluating cross-functional decisions that enable an organization to achieve its objectives" (David & David, 2015:39). Prasad (2015:3) defines strategy as an understanding of business, focused on the future, and a step forward towards the future. The SAPS formulates strategic plans with activities and implementation times linked to the budget. The strategic process has three stages as the definition suggests: planning, implementation and evaluation.

Planning in the SAPS takes into consideration the vision, mission and long-term plan (medium-term strategic framework), which takes three to five years and the annual performance plans. The

strategic plans are linked to the financial year and to the budget of the organisation (SAPS Strategic Plan, 2020-2025).

Different authors agree that resources are key in the successful implementation of strategy and define resources as including physical resources (people, machinery and finance) and capabilities (competencies & expertise). Organisations implement strategy in the day-to-day operations of the enterprise or implemented projects. Strategy sets the direction for the enterprise (Prasad, 2015:16). The success of any organisation depends on successful implementation of the strategy and implementation depends on resources of the organisation, which include tangible and intangible resources. Intangible resources include the organisation's reputation, technology, and employee skills and expertise. Tangible resources include technology infrastructure, financial resources, and people (Prasad, 2015:17).

For successful implantation of strategy, it is necessary to have annual objectives/ performance plans where resources are allocated accordingly, which will assist in assessing management's performance and monitoring progress towards achievement of medium-/long-term strategic goals of the organisation/enterprise (David & David, 2015:335).

The last phase of strategic management, as the definition suggests, is monitoring and evaluation of cross-function decisions. The organisation needs to monitor and evaluate strategies it implements and the strategic decisions it takes. This phase helps to check if strategic plans are on track. The lesson learned from implementation is to understand how success has been achieved or why it has not been achieved. The SAPS annually compiles a report covering the financial year to the parliamentary committee on police and publishes it for public knowledge. The National Crime Prevention Strategy (1996) is a medium- to long-term strategy broken into annual objectives and integrated into an annual performance plan, which is then broken down at the station level as part of the station's operational plan (SAPS WC Annual Reports 2018-2019).

## 2.3    Conception Review

### 2.3.1  South African Crime Prevention Framework

According to SAPS' Annual Performance Plan 2018-2019, the following legislation and prescriptions inform the formulation and implementation of their Crime Prevention Strategy:

- Constitution of the Republic of South Africa (1996)
- South African Police Act 68 of 1995.
- National Development Plan 2030 (NDP2030) goal

- National Crime Prevention Strategy 1996
- State of the Nation Address by the President
- Medium-Term Strategic Framework (MTSF)
- Police Minister and Police Commissioner's priorities

The Constitution of South Africa guarantees everyone the right of protection by the law and the responsibility of protecting all inhabitants in the Republic is assigned to the SAPS. It mandates the SAPS to prevent combat and investigate crimes. The National Development Goals 2030 (NDP2030) contemplate that all people in South Africa should be safe and feel safe. The NDP2030 stipulates that the police should demilitarise and be professional by attracting and recruiting professionals to the police service. It further emphasises the community's involvement in crime prevention and use of technology in preventing and solving crimes.

The development goals of government 2030 follow the National Crime Prevention Strategy (1996), which came into existence because of the high crime rate in the country that poses a threat to peace, development and economic growth. The NCPS (1996) includes all government departments and communities; it clearly explains the role of each department, local government authority, and the community. It is aimed at reducing crime in the country and acknowledges that crime prevention is not the sole responsibility of the police.

The State of the Nation Address (SONA) is the address by the President where he explains government achievements of the preceding year, and government objectives and priorities in the coming year. During the 2020 SONA, President Ramaphosa stated that ''investment and economic growth requires a safe, stable and crime-free environment''. The high crime rate is a threat to economic growth. During the SONA in 2019, President Ramaphosa directed that violent crime to be reduced by half.

According to SAPS' Medium Term Strategic Framework 2020-2025 (Strategic Plan 2020-2025), NDP Vision 2030, and the National Crime Prevention Strategy (1996), SONA plays an important role in formulating strategic plans, annual performance plans (Annual Performance Plan), national plans, provincial plans, and station operational plans. The strategic plan also is known as a medium-term strategy framework aligned with the government's term. Strategic plans and annual performance plans aligned are with the budget of the department.

The SAPS has adopted the NCPS (1996) and its pillars to the crime prevention approach (SAPS Strategic Plan, 2015-2019). This study focuses on the crime prevention framework and community-based crime prevention strategy in the urban environment. The SAPS needs to zoom in on specific crimes as prioritised by the national crime prevention strategy. Then it must devise

crime prevention strategies/approaches that deal specifically with these crimes, which include:

- Crimes against women and children (gender-based violence) strategy
- School safety strategy: prevention of crime at schools
- Youth crime prevention, which deals with youth-related crimes
- Rural safety strategy that deals with the prevention of crime on the farming community and rural communities only
- Gang strategy: gang-related crimes, including prevention and investigation approaches.

These strategies include emerging priority crimes like gang-related crimes. Resources include financial resources allocated for combating these crimes. As a result of these, crimes appear individually in the annual performance plans. Cape Town Central SAPS, like any police station in the Western Cape and across the country, makes its plans in line with the provincial strategy and in line with the aforementioned directives to address all crimes in policing precincts. In addition, it takes into consideration challenges in immediate communities, for instance, Cape Town (SAPS Strategic Plan, 2020-2025).

## 2.3.2    Crime prevention strategy

The description of a crime prevention strategy includes different approaches, but is not limited to stop and search, roadblocks, patrols, response to crime-related complaints and patrols focusing on hot spots. The purpose of crime prevention is to reduce opportunities for the suspect to commit a crime (Karn, 2013). The crime prevention strategy is mostly implemented at local or station level. The provincial level (provincial crime prevention section of visible policing) co-ordinates, monitors the implementation of crime prevention, and reports to head office who consolidate it to the annual report section of crime prevention (SAPS Annual Report, 2018-2019).

The high, serious and, sometimes, violent crime in South Africa threatens all South Africans, the business community, and women and children, and has become a threat to the hard-won democracy and economic growth of the country. The South African government adopted the National Crime Prevention Strategy in 1996 with the aim of coordinating all crime prevention efforts with all stakeholders, including other government departments. The effect of this approach is to have a framework that permits the government to deal with crime in a focused way that ensures resources taken in both civil society and the government sector (NCPS, 1996).

According to the National Crime Prevention Strategy (1996:6-7), there are four pillars:

*"Pillar 1: The Criminal Justice Process aims to make the criminal justice system more efficient and effective. It must provide a sure and clear deterrent for criminals and reduce the risks of re-offending.*

*Pillar 2: Reducing Crime through Environmental Design focuses on designing systems to reduce the opportunity for crime and increase the ease of detection and identification of cr1iminals.*

*Pillar 3: Public Values and Education concern initiatives aimed at changing the way communities react to crime and violence. It involves programs which utilize public education and information in facilitating meaningful citizen participation in crime prevention.*

*Pillar 4: Trans-national crime programs aim at improving the controls over cross border traffic related to crime and reducing the refuge which the region offers to international criminal syndicates."*

The responsibility to co-ordinate and implement the National Crime Prevention Strategy (1996) as well as ensure its success is assigned to the Department of Police (Ministry of Police).

The following became policy mandates of the SAPS:

- The National Crime Prevention Strategy
- National Development Plan 2030
- Constitution of RSA
- White Paper on Safety and Security became the policy mandate of the SAPS. (SAPS Strategic Plan 2014-2019)

During SONA 2018, the President directed the Department of Police to devise a Youth Crime Prevention strategy that will involve, empower and support the youth in the fight against crime. The other crime prevention strategy is Rural Safety Strategy, which is intended to address rural safety as part of an integrated and holistic day-to-day crime prevention approach (Rural Safety Strategy, 2015).

National crime prevention strategies have been devised by other countries to deal with crime reduction. In Tanzania, the national crime prevention strategy which is aimed at building capacity and providing a framework to support local structures' initiatives in collaboration with stakeholders, including local/urban authorities. As other countries do, the Tanzanian crime strategy prioritises crime against women and children (Crime Prevention –Tanzania, 2007).

The British Modern Crime Prevention Strategy (2016) identified drivers of crime in England and Wales these were opportunity, financial benefits, and ineffectiveness of the criminal justice system, drugs, character, and alcohol. It also identified that quick response in apprehending suspects and sentencing by the court contributes to deterring crime from happening because criminals know something is being done quickly. The modern crime prevention strategy recognises the importance of data and technology in the prevention of crime, which includes CCTV cameras and drones.

The literature indicates that many countries in the world have crime prevention strategies but allocating sufficient funding and resources to them has been a problem for many governments. A crime prevention plan must have resources, including financial resources, to be successful (Fournier-Ruggles, 2011, Mothibi and Phago, 2018).

Mothibi and Phago's (2018) study assessed the effectiveness of government agencies measures in the control and prevention of organised crime. The findings pointed to poor co-ordination of concerted efforts of government agencies. The SAPS lacks critical resources (like scanners) to detect and prevent crime because of budget constraints, which has negative effects on preventing crime. Lack of resources limits the ability of police officers to prevent crime and deliver service to the community. The budget constraints have been observed in other government departments like the South African National Defence Force which could put the country's safety and economic wellness at risk.

Mudzanani (2017) examined crime reports against tourists in South Africa and found that crime not only threatens tourists and the tourism industry, but also threatens job creation and economic growth opportunities that the tourism industry brings to the country. The study recommended the industry's Crime Prevention Strategy funded by the government and involving concerted efforts by communities, the private sector and government.

The visible policing programme received R46.87 billion in 2018/19, 51% of the department's budget. The crime prevention sub-programme of visible policing received 77.3% (R36.3billion) of the programme allocation (SAPS Annual Performance Plan 2019-2020).

The Western Cape Province received an allocation of R843 million in the 2017/2018 financial year of which R568, 000 000 was allocated to visible policing. Crime prevention financial programme receives the biggest part of the budget allocated to the police. Visible policing/crime prevention has over 50% of the workforce. One of the important resources to assist crime prevention efforts is vehicles. The SAPS vehicle to personnel allocation ratio has not been achieved because of shortage of vehicles. The vehicle to personnel calculation includes all SAPS Western Cape, not

only operational members, which gives the impression that shortage is more than reported in the annual report (SAPS WC Annual Report 2018-2019).

The crime prevention strategy of the police station should include partnerships with other stakeholders including, but not limited to, communities the police station serves, the business community, and security companies in the policing precinct. Sector managers and community police forums' leadership are players in organising support of the community for the police and following up complaints of the community in police stations (SAPS Sector Policing Guideline, 2015)

Lazzati and Menichini (2016) argue that the use of hot spots policing where scarce resources for policing are re-assigned to high crime concentrated areas helps to reduce crime. This strategy has worked in New York City for many years but requires monitoring and analysing crime to avoid displacement of criminal activities. It is important to use police resources optimally. As part of the National Crime Prevention Strategy (1996), municipalities must have safety plans in their integrated development plans (IDP) and take a lead in community safety forums (Buthelezi, 2017).

### 2.3.3  Western Cape SAPS

The SAPS is a national department of government. The Provincial Commissioner reports to the National Commissioner and accounts to the Western Cape Provincial Parliament. According to SAPS Act 68 of 1995, the Provincial Commissioner of SAPS has command and control of the police in the province. The Provincial Commissioner may create and maintain police stations, control and distribute human capital, financial resources and physical resources.

The constitutional mandate of SAPS provides for a vision and mission of the organisation. The National Crime Prevention Strategy (1996) is the operational plan of the SAPS. All police stations in the Western Cape and around the country, implement national crime prevention strategy together with other government crime priorities (SAPS Annual Performance Plan 2019-2020). The Provincial Office of the SAPS oversees and gives guidance to the implementation of the organisation's plans. It also controls the budget and resources.

The Western Cape has 151 police stations, grouped into 16 clusters. Cluster commander(s) monitor and co-ordinate implementation of the organisation's strategies and polices in the cluster police stations and report to the Provincial Office. The Western Cape has a population of 6 844 272 people (Statistics SA, 2019).

### 2.3.4    Cape Town Central SAPS

The Cape Town Central SAPS is the biggest police station in the Western Cape located in the Cape Town CBD with 510 police officers (Hyman, 2020). The police station serves city residents, businesses that operates in the city as well people who work in the CBD. In the Cape Town Central, policing precinct there is National Parliament, at least one public University (CPUT), and a number of colleges and schools, which add to the city population.

Thousands of people visit the CBD every day for shopping, work, doing business in government departments and attending schools in the city centre. This influx largely contributes to the policing efforts and crime in the city centre. The Cape Town Central SAPS is the highest community-reported crimes station in the country and in the Western Cape Province for the past five years (2014-2019). The number of serious crimes reported by communities to the police are listed in Table 2.1 (SAPS Annual Performance Plan 2018-2019).

**Table: 2.1: Seventeen community reported serious crimes top 30 stations**

| Position | Station | Province | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 |
|----------|---------|----------|---------|---------|---------|---------|---------|
|          |         |          |         |         |         |         |         |
| 1 | Cape Town Central | WC | 15 191 | 15 952 | 14 754 | 15 422 | 13 747 |
| 2 | Jhb Central | GP | 13 641 | 12 912 | 13 044 | 12 221 | 12 199 |
| 3 | Mitchells Plain | WC | 14 966 | 14 258 | 12 894 | 11 382 | 11 374 |
| 4 | 4 Park Road | FS | 11 925 | 10 296 | 9 870 9 | 9 611 | 10 664 |
| 5 | Honeydew | GP | 11 721 | 11 127 | 10 965 | 10 506 | 9 981 |

Source: SAPS Crime Stats 2018-2019

### 2.4    Empirical Review

### 2.4.1    Source of police funds

Sources of police funding in different countries around the world differ, though national governments are a source of funding of police services in many countries. The deficiency in the police budget makes it important to know where police budget comes from (municipality, national government or donations). The source of funds tends to take control of policing agency. In cases where funding of the police budget comes from different sources, it puts the police in a better position in terms of having policing resources (Schraer, 2019).

In the United Kingdom, the police budget comes from different sources, unlike South Africa where 99, 9% of funding is provided by the national government. According to British Statistics Bulletin 10/19 (2019), the source of funds for police in England and Wales is the (British) Home Office (government), local council tax precept and additional sources of income from special police services like major events such as soccer tournaments and concerts. The Police in England and Wales charge for these services.

The funding of police budget in Canada also comes from different sources as in England and Wales; in some cases, the municipality and provincial government provide funding, in addition to grants from the national government. In different countries and states, the responsibility of providing police services belongs to municipalities. In cases where municipalities provide the policing service, they fund the police and the police becomes accountable to the mayor (Fletcher, 2019).
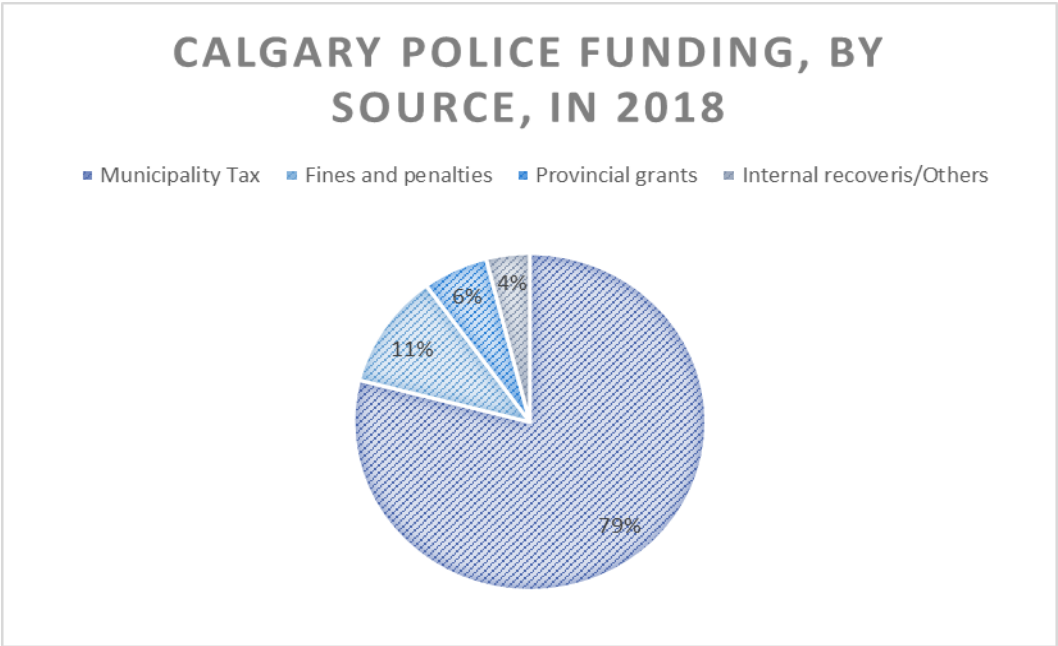


**Figure 2.1: Calgary police funding by source in 2018**

Source: Fletcher (2019)

The Calgary police in Alberta Province, Canada, has different sources of funding. As shown in Figure 2.1, the main funding for the police budget (79% of $509.4million) came from municipality tax. The other sources of funding included cannabis tax and fines (11%) (Fletcher, 2019).

According to Kiedrowski et al. **(**2016**),** the Canadian federal government and Territories/Municipalities reached a cost-sharing agreement in 1991 with the aim of sharing cost

of policing. The federal government provides 52% and the Territory government/provincial/municipality government the remaining 48%. Thus policing in Canada is the primary responsibility of municipalities.

In many cities in the USA, including Chicago, Minneapolis, Houston and New York, policing services are also the primary responsibility of municipal government. The mayor and the council provide funds for the policing budget (Neuhauser, 2017). In New York, the council provides up to 90% of the budget and the remainder comes from the federal government (NYPD Finance Report, 2018)

With the Kenyan Police Services, like in most African countries, the national government allocates funds to the police (Ombati, 2019). In South Africa, the national government is responsible for providing policing services and funds for the budget of the SAPS (SAPS Annual Performance Plan 2018-2019).

### 2.4.2 The SAPS budget allocation trends

Radebe (2017:3) defines a budget as "a key statement of the policy of government. It is the process through which government makes choices about competing priorities that need to be funded for services to be delivered". The SAPS has five financial programmes: Administration, Visible policing, Crime detection, Crime intelligence, and Protection and Physical Security Services. The SAPS budget allocates funds to all the programmes (Radebe, 2017). The SAPS, in provinces, has three programmes: Administration, Visible policing and Crime detection. Crime intelligence, protection, and physical security services have a presence in provinces, but are accountable to national office of the police (SAPS Annual Report 2017-2018). All these programmes have funds allocated to them according to their needs.

According to the Police Minister's Budget Vote Speech (2019), the police budget stood at R97,5 billion during MTEF (2019/2021) and R111,1 billion (2021/2022), which amounts to 45% compared to 2015/2016 which was R76,7 billion.

Compensation has been the biggest cost driver for the past decade and remains the biggest cost driver. Employees' compensation has been standing at 78% and expenditure on goods and service 17%, as indicated in Table 2.2.

Between 2007/2008 and 2013/2014 financial years, the SAPS budget increased up to 101% (R51.3, billion) and compensation cost stood at 78%. Compensation cost consists of 64% for basic salaries, 11% of employer contribution to medical aid and 3% to homeowners' allowances (Radebe, 2017), which continues in the current financial year.

In this budget cost, the programme with the highest number of employees is visible policing with 102 059 personnel, while other components like crime detection and administration had 39 069 and 37 729, respectively. Crime intelligence and protection, and physical security share less than 10 000 personnel. According to the SAPS annual report 2016-2017, the national SAPS workforce amounted to 194 605 (SAPS Annual Report, 2016-2017)

The SAPS budget has grown more than double over a period 10 years since 2008/2009 financial year, as illustrated in Table 2.2. The trend has been consistent: compensation has been the highest cost driver at 71% to 85%. The next highest cost driver is the goods and services, which includes payment of suppliers of services and procurement of items like computers. The SAPS budget is centrally controlled by the SAPS head office in Pretoria, while provincial offices and local police stations are responsible for the funds allocated to them for their expenditure. Provinces account to the head office and local police stations account to provinces.

**Table 2.2: Budget allocation trends**

| SAPS Budget Allocation trends | | | | | | |
|---|---|---|---|---|---|---|
| | 2008/2009 | 2009/2010 | 2010/2011 | 2011/2012 | 2012/2013 | 2013/2014 |
| Total revenue | 41,875,999 | 47,974, 694 | 53,824,993 | 58,862,46 2 | 63740398 | 69,183, 595 |
| Goods and services | 9,459,498 | 10 644 947 | 11 318 255 | 11,998,47 1 | 12,449,153 | 13,592, 703 |
| Compensati on expenditure | 29,046,228 | 33 739 819 | 38,415,337 | 42,427,70 2 | 46824559 | 51284717 |
| Total Expenditure | 41,505,758 | 44 398 940 | 53,534,250 | 57,946,24 3 | 59285099 | 64883271 |
| SAPS Budget Allocation trends | | | | | | |
| | 2014/2015 | 2015/2016 | | 2016/2017 | 2017/2018 | 2018/2019 |
| Total Revenue | 72 905 165 | 77199 511 | | 81740 867 | 87 438 814 | 92,247,310 |
| Goods and services | 14 244 265 | 15235651 | | 15094401 | 15 344 805 | 14,836,304 |
| Compensati | 54 332 228 | 57478371 | | 62038112 | 67 124 496 | 71,282,392 |

| | | | | | |
|---|---|---|---|---|---|
| **on expenditure** | | | | | |
| **Total expenditure** | 72 514 989 | 72714493 | 77132513 | 82 469 301 | 90,428,742 |

Source: Compiled from SAPS annual reports /statement of financial performance (2008-2019)

### 2.4.3 Budget expenditure trends

The literature shows that different trends in different policing agencies have different cost drivers and different priorities across the world. The literature further indicates the police agencies are busy trimming their budgets and national governments allocate less funds every year.

High turnover in government departments and high demand for skilled personnel in both private and public sectors has forced governments around the world to be market competitive in compensating employees, which has made compensation cost one of cost drivers in government departments. Governments around the world are struggling to cut compensation cost without compromising service delivery (Dathan and Winchester, 2020)

In the police operating expenditure in Canada from 2010/2011 to 2014/2015, the highest expenditure, amounting to 81% of the budget, was employees' compensation (Mazowita & Greenland, 2015). According to Conor et al. (2019), this trend continued until 2017/2018 financial year as indicated in Table 2.3. According to New South Wales Police Force Annual Report 2018-2019, the police budget allocated 81,5% for compensation.

**Table 2.3: Canada police budget expenditure**

| Canada Police Budget Expenditure | | | | |
|---|---|---|---|---|
| | | | | |
| Percentage | 2013/2014 | 2014/2015 | 2016/2017 | 2017/2018 |
| Operating expenditures for policing | | 13.9 billion | $14.7 billion | $15.1 billion |
| **Expenditure** | | | | |
| Salaries, wages and | 66% | 66% | 65% | 66% |
| Employees benefits | 15% | 15% | 16% | 15% |

| Information Technology (IT) operations | | | | $380.0 million |
|---|---|---|---|---|
| Other operations expenditures | | | | $284.2 million |

Source: Canada police resource allocation 2013-2018

Police equipment like radios and other communication devices were procured, but the literature did not show any consistency in procuring such items as indicated in the compensation expenditure trends over a period of five years (Conor et al., 2019). These items are important to do police work.

The trend of high compensation expenditure is also depicted in the Australian Federal Police (AFP), where consistently high expenditure is the trend for a period of five years, as indicated in Table 2.4 (AFP, 2018/2019 Budget). Moved from below to this position so that the text appears before the table supporting it

**Table 2.4: Comprehensive income statement (showing net cost of services)**

| EXPENSES | 2017–18 Estimated actual $'000 | 2018–19 Budget $'000 | 2019–20 Forward estimate $'000 | 2020–21 Forward estimate $'000 | 2021–22 Forward estimate $'000 |
|---|---|---|---|---|---|
| | | | | | |
| Employee benefits | 876,175 | 882,994 | 889,364 | 876,130 | 827,796 |
| Suppliers | 469,538 | 452,983 | 418,456 | 413,050 | 371,405 |
| Depreciation and amortisation | 101,390 | 109,543 | 116,854 | 119,341 | 116,588 |
| Total expenses | 1,447,103 | 1,445,520 | 1,424,674 | 1,408,521 | 1,315,789 |

Source: Australian Federal Police, Financial Statements 2018/2019

The New York Police Department (NYPD) also showed the same trend, where the police spend most of their budget compensating employees, including overtime. The NYPD spending trend can

be traced back to 2016 to 2018 (NYPD Finance Report, 2018).

The literature on this topic is limited in the African continent.

### 2.4.4   Compensation in the police services

The police job is known to be an underpaid job in the world. Quah's, 2019 study analysed differences and causes of police corruption in five Asian countries and found that low salaries of police officers, red tape, lack of meritocracy in recruitment, promotions, and lack of accountability of police were reasons of corruption.

In South Africa, pressure from trade unions and efforts at retaining police officers (employees) in the service played an important role in ensuring that police officers' salaries grow over the years (Rakabe, 2019). Schuck and Rabe-Hemp's 2018 study examined the relationship between turnover and police officers' salaries in USA. The study showed that high salaries play a huge role in retention of officers. Specifically, it was found that high salaries improved employees' job and encouraged them to be committed to their jobs and the organisation.

The perception is that police officers are the most corrupt government officials because of poor salaries, pointed out as the reason for corruption by different authors. The biggest part of the budget is for compensation, which should place police officers among the best-compensated employees (Faull, 2018). This argument serves as a counterpoint to the view that police salaries are poor.

Faull (2018) argues that non-commissioned officers (constables, sergeants and warrant officers) in the SAPS make up 86% of the workforce. Most part of the police compensation budget pays senior managers who earn R2 000 000 each and make up 2451. He further argues that the salary of one senior manager can pay up to 11 constables. The table below depicts the salary structure of the SAPS workforce.

**Table 2.5: SAPS personnel cost**

| SAPS Personnel | | | | |
|---|---|---|---|---|
| **Personnel** | **Salary Band** | **Number** | **Salary** | |
| General | 15 | 1 | R2,141416.00 | R21414146.00 |
| Lieutenant General | 15 | 17 | R1,771104.00 | 30,108,768.00 |
| Major General | 14 | 170 | R1 273 710 | 216,530, 700.00 |
| Brigadier | 13 | 654 | R1,076,376.00 | 703,949,904.00 |
| Colonel | 12 | 1618 | R838 407 | 1,356, 542, 526.00 |
| **Total cost of SMS** | | **2760** | | **2,311,273,314.00** |
| Lieutenant Colonel | 10 | 4973 | R467 208 | 2,323,425,384.00 |
| Captain | 8 | 14037 | R370 908 | 5,206,435,596.00 |
| **Total cost of commissioned officers** | | **19,010** | | **7,529,860,980.00** |
| Warrant Officer | 7 | 32771 | R295 905 | 9,697,102,755.00 |
| Sergeant | 6 | 25639 | R220 000 | 5, 640, 580, 000.00 |
| Constable | 5 | 64043 | R186 483 | 11,942,930,769.00 |
| Student constable | 1-4 | 3,690 | R38,100.00 | 140,589,000.00 |
| **Total cost of non-commissioned officers** | | **126,143** | | **22,344,680,524.00** |

Source: compiled from Faull, 2018; SAPS Reply to Parliament question 136, (2018)) and *The Citizen* (2019), Govpage (2019)

Gascon and Foglesong's (2010) study investigated the cost of policing, what drives up the cost and measured the value thereof in USA cities. The study found that:

- The cost of policing is higher than cost of correctional services and justice functions in the last ten years.
- Paying market competitive salaries to retain employees drives up the compensation cost.
- Increased demand of labour in the police, population growth and demand for police for non-police related matters like responding to loud music or alarms also played a part.

- Return on investment was realised: in some cities, crime reduced and the feeling of safety improved.

In 2018, Canada had 68 562 police officers whose numbers continued to decline. The average salary of police officers was $99,298 and highest paid police officer was earning $101 000. Canada has a different rank structure from SAPS. Constables (lowest rank) make up 69% of the police strength in Canada and 26% non-commissioned officers. The police resources in Canada do not disclose how much commissioned officers earn or cost the compensation budget (Conor et al., 2019).

### 2.4.5 Training and recruitment of new police officers

According to the South African Police Service Act 68 of 1995, the National Police Commissioner is empowered to decide the procedure of recruiting police officers/employees and training as well as conditions of employment.

Human capital is a critical part of crime prevention strategy. The key in prevention of crime is disrupting the perpetrator's opportunity to commit crime. Police officers cannot be everywhere at the same time to prevent crime, but the more visible the police, the less opportunity for criminals to commit crime. Table 2.6 shows the recruitment of police officers, including those who left and returned to the police services. The recruitment trends seem to fail to overcome the challenge of shortage of police officers in the Western Cape, which continues as some officer's exit the police service because of dismissals, retirements, voluntary resignations and death of serving members.

**Table 2.6: SAPS Cape Western recruitments trends and members' exits**

| Western Cape SAPS recruitments trends and members' exits | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Financial Year(s)** | **2012/13** | **2013/14** | **2014/15** | **2015/16** | **2016/17** | **2017/18** | **2018/19** |
| Allocated posts & filled | 183 | 549 | 1014 | 830 | 373 | 218 | 1206 |
| Re-enlisted recruitment | | | | 101 | | 59 | |
| Resignation/ Early retirement/Dismissals | | | | (93) | (108) | | (589) |

According to Dodd (2019), England and Wales have had shortage of police officers since 2010 because of budget constraints. The new British Prime Minister, Mr Boris Johnson, pledged to provide 20,000 police officers to address shortage of police officers, which has led to a high crime rate in Britain. Though government promised to provide police officers by September 2019, lack of funding has meant government could not provide the police officers within the agreed timelines.

Recruitment of police officers is a lengthy and costly process. After a police officer is recruited to join, the officer goes to a police academy for a period of six months or more, depending on the standard of each county, state or police department. In the NYPD, the officer goes to the academy for six months for basic training and undergoes field training after that to gain practical experience (NYPD Financial Report, 2019).

Though there is a shortage of police officers in South Africa in general, the Western Cape Province is the hardest hit. Population growth and new residential developments are contributors to the shortage of police officers (Lepule, 2018). Aging of the current personnel in the police force also contributes to a declining workforce. According to Conor et al. (2019), during the 2017/2018 financial year, 7416 Canadian police officers, that is, 11% of the workforce, were eligible for retirement. In the SAPS, 5,815 officers left during the 2018/2019 financial year (SAPS Annual Report, 2018-2019). According to the Parliamentary Committee Report on Community Safety (2017), an average of 475 police officers exited the police service every year for the past five years in the Western Cape.

The South African government has introduced an early retirement with no pension penalties to reduce the bloated government employees and high wage bill. This has increased departure of experienced officers in the police and other government departments (Mokone, 2019).

The Western Cape Province has been the murder capital of the world for three consecutive years and continues to have a high number of serious crimes (Businesstech, 2019) The provincial government has been prepared to take the matter to court to force the national Minister of Police to address the shortage of police officers. The provincial parliament tasked Dr Luthuli to investigate this shortage. Results of the investigation confirm that there is 85% understaffing in 128 of the 150 stations in the Western Cape. The current police per population ratio in the country is 1:383, while it is 1:509 in the Western Cape (Lepule, 2018).

The SAPS recruits police officers at entry level and has an age restriction. As a result, it is impossible to recruit qualified police officers from the outset. The process of recruiting police, as depicted in Table 2.7, is divided into three phases: recruitment, selection and enlistment. The

recruitment alone can take up to three months to finalise.

Steps in the recruitment process include community input about the person being recruited, verification of the address, psychometric testing, medical testing and physical assessment. The last step is screening and verification of qualifications (Brothwell, 2019). In 2018/2019, 246 120 applicants applied for entry-level recruitment and were tested (SAPS Annual Report, 2018-2019).

**Table 2.7: SAPS recruitment process flow**

| SAPS officer recruitment process flow | | |
|---|---|---|
| **Phase 1** | **Phase 2** | **Phase 3** |
| Recruitment | Selection | Enlistment |
| Step 1<br><br>Planning | Step1 psychometric assessment (integrity testing) | Step 1<br>Finalisation of administration |
| Step 2<br><br>Targeted recruitment community involvement | Step 2 physical fitness assessment &fingerprints | Step 2<br>Induction |
| Step 3<br>Advertisement received<br>Register screen<br>Application<br>Address verification | Step 3<br><br>Interview &reference checking | Step3<br><br>Basic police development phase |
| Step 4<br><br>Identify pool of | Step 4<br><br>Recruitment board | Step 4<br><br>Appointment |

| candidates | | |
|---|---|---|
| | Step 5<br><br>Medical assessment<br><br>Step 6<br>Security screening &<br>verification of<br>qualifications | |

Source: SAPS Basic Police Development Learning Programme

After this intense recruitment process, the police trainee will undergo the following phases:

(1) Phase one: 10 months at the training academy and earn R3175, 00 per month.
(2) Phase two: 12 months at the workplace and the trainee will be earning a minimum of R7 275.00 per month.
(3) Phase three: two months of integrated assessments at the academy after completing the training, the police trainee is appointed permanently to the police service. Thus, from initial training to full-time appointment, the total cost is R133600.00 (R7275.00 X 14) + (10x 3175.00), excluding recruitment cost.

This confirms how long and costly it is to recruit police officers in South Africa. Faull (2018) points out that SAPS advertised 3500 positions in August 2018 and 500 000 people applied for these positions. This put pressure on recruitment and added cost to the recruitment process.

 According to New Zealand Police (2020), recruitment of a police officer takes six to eight months to finalise. The recruitment process includes physical assessments, psychometric tests, medical test and vetting. It takes 16 weeks to train police trainees, no specific secondary education required, payment on training is $1,440.00 per fortnight, and they undergo two years of supervised police work with regular assessments.

As policing itself is labour-intensive, when police recruitment happens it involves a large number of people and that requires a lot of money from government. In all these stages, the officer is not yet productive.

## 2.4.6 Alignment of policing resources with population Growth

The main reason for census is not only to know the size of the population, but for government to use the statistics for planning. The more population grows, the more resources need to be increased to meet the needs of the growing population.

Resources are a critical part of delivering police service to any community in the world. During election periods, leaders of political parties acknowledge that the police are under resourced and promise to increase capacity by allocating more resources should they be elected to power, after elections no leadership returns to those promises (Kirchmaeir, 2019).

In the past decade, the South African population has increased from 51,8 million in 2010 to 58,8 million in 2019 (Stats SA, 2019). In Western Cape population increased from 4,313 959 in 2002 to 6,844,272 in 2019 and is expected to continue increasing. Migration of people to the Western Cape has increased from 493 621 in 2016 to 316 308 in 2021.In addition, people coming from outside the country to the Western Cape has estimated to increase from 106 227 in period 2011 to 2016 to 120 420 in 2021 and these figures continue to grow (Stats SA, 2002 & Stats SA, 2019).

Population growth has a huge impact on policing resources as it affects the ability of the police to render service to the community. The police to population ratio, according to the UN standard, is 1:220, but in South Africa, it is currently 1:385. The continuing increase in population and influx of people into the Western Cape places more burden on police resources in the SAPS Western Cape (SAPS Crime Stats, 2017/2018).

For any organisation or government department to achieve its objectives, it needs resources to meet demand for its services. The more population grows, the more demand for services of the police increases. However, mere population growth does not indicate any need to deploy police resources unless crime increases with the population. According to Masiloane (2014:129), crime statistics show the community the state of crime, its nature and extent in the country. The crime statistics are used by community members, businesses and investors to decide whether to do business or not in a city, country or specific area. It helps the police management to decide where to deploy resources and the approach to deal with crime.
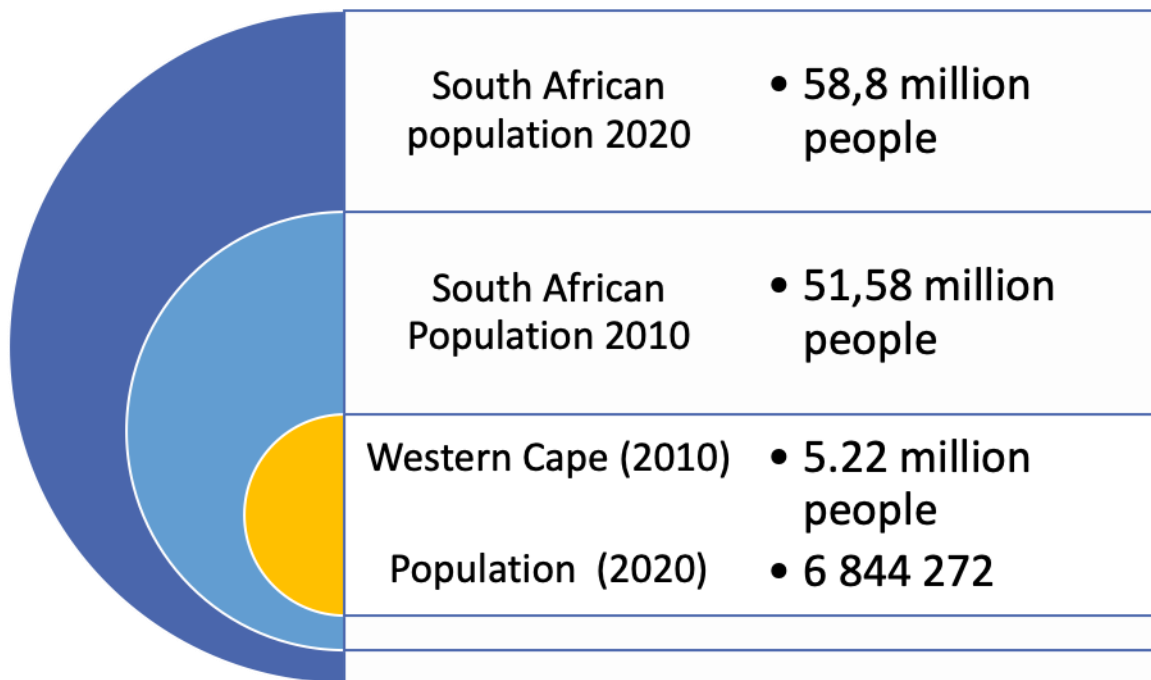
**Figure 2.2: Growing population in South Africa**

Source: Stats SA (2019)

## 2.4.7 Acquisition of modern technology and training of personnel to support crime prevention strategy

Technology plays a significant role in creating opportunities for committing, preventing and solving crimes. Policing agencies, governments and departments around the world are gearing in readiness for Fourth Industrial Revolution (4IR) technology. The Fourth Industrial Revolution necessitates organisations to acquire technological equipment and employ people with technological expertise to meet its demands. Training and modern technological equipment make it easier for police officers to prevent crime from happening. The following technological resources are used in the fight against crime:

(1) Body-worn camera (BWC)

(2)  Natural surveillance

(3)   Souseveillance (watched from below)

(4)  Closed circuit television

(5)  Face recognition technology (Automated facial recognition)

(6)  Futuristic technology (predictive crime mapping)

(7) Licence plate recognition (LPR)

(8) Drones

(9) Shot Spotter gunshot detection system

(10) Two-way radio communication

Crime-related incidents that have happened in the USA, UK and elsewhere in the world have prompted responses meant to prevent recurrence of these incidents and assist in prevention of crime. In 2014, police killed in Ferguson, Missouri (USA) an African American young man. This prompted mandatory use of body-worn cameras (BWCs) by police officers, which not only expose the actions of police officers while performing their duties, but also plays a significant role in preventing and solving crimes (Schuck & Rabi-Hemp, 2017; Liou, 2019).

Liou's (2019) study examined critical issues and challenges of applying technologies to improve police management performance in the USA. The findings indicated that technology helps in improving transparency of police activities to communities they serve and that technology helps to reduce time and related costs of operations, and promotes accountability on the side of police. Further, the study identified the following challenges: technology, human risk factor, resource limitations, invasion of privacy and public trust.

In the UK, the police use face recognition technology, also known as automated face recognition (AFT), to prevent crime and apprehend wanted suspects. ATF maps faces of people in the crowd and matches them with a list of wanted persons. An ATF technology camera can zoom in on people in large, crowded busy places like Long Street, Cape Town, and big crowded events like those that soccer matches. If a person is positively identified/ matched through AFT, the police track and apprehend the person (Morris, 2019). Police in the USA and Kent police (UK) also use futuristic technology to predict crime-using data so that they can deploy resources and officers to prevent crime (Dearden, 2017).

Many countries use closed circuit television, including the City of Cape Town, to monitor movements of suspected criminals in the CBD and apprehend people who commit crimes in the street (Swart, 2018). Natural surveillance and souseveillance include watching from security towers using binoculars. Intelligence-led operations using this technology to not only prevent crime, but also respond to incidents of crime(Ceccato, 2019).

A licence plate recognition (LPR) camera captures number plates of vehicles and stores the data, which could be retrieved later for analysis of driving patterns. The LPR is linked to eNatis system, which has details of all registered vehicle owners. Whenever a vehicle passes a LPR camera, its details are captured and stored by the camera (Swart, 2018). In addition, this information can be used in investigation of crime or planning of crime prevention initiatives.

According to Cloete (2019), the City of Cape Town (CoCT) has identified use of drone's technology as it offers an 'eye in the sky' in assisting police to prevent crime and respond to incidents during or after their occurrence. Drones play a role in apprehending suspects in the City of Cape Town and monitoring protests in the city. Protests cost the CoCT and businesses millions of Rand in damages (Swart, 2018). The drones cost the city R600 000 each drone, excluding operational cost and services cost. These costs also exclude maintenance and cost associated with operating personnel (Mail & Guardian, 2014).

Closed circuit television, two-way radio and gunshot detection systems are already being used by the police in Cape Town for crime prevention or response to crime incidents. However, some of these technologies are not commonly used in South Africa because they are unaffordable. Table 2.8 shows the cost of technological equipment.

**Table 2.8: Cost of technology used in crime prevention**

| Cost of technology used in crime prevention | | | |
|---|---|---|---|
| **Drones technology :** | | ShotSpotter/ gunshot detection system | R32million |
| Drone | R 95,000.00 | | |
| Camera installed in a drone | R12,000.00 | | |
| CCTV camera costs | R350, 000.00 | | |

Source: Swart (2018)

According to Dearden (2017), the British police have predictive crime mapping tools that assist them to predict place, kind of crime and times it possibly happens. Although they should deploy such resources to prevent crime from happening, deployment was not happening. The literature is, however, silent on why this technology has not been used for more than ten years by the British police. Only a few police stations were using the technology.

The literature identifies the following issues relating to the use of technology for crime prevention:

1. Due to high cost of technology and budget constraints, policing agencies do not acquire technology. In addition to cost of acquisition of the technology is maintenance of technological equipment, training of personnel to use it and storage cost of the data (Strom, 2017)
2. Technology not integrated into the traditional policing strategies. Operations control rooms do not have people with appropriate training needed to operate the technological equipment (Menichelli, 2014).
3. Strategic planning of policing agencies does not include the technology. Technology plays an important role in crime prevention. It should be included in planning. There must be a proper plan to purposely acquire technological equipment, how the technology will be used, and people properly trained to use it. Lastly, success that technology brings must be quantified (Strom, 2017).

Albertus (2020), citing Corruption Watch (2017), states that the replacement of manual way of doing things by information technology could enhance efficiency, boost trust in the police service and save cost for the SAPS. The author further argues that the use of competent personnel, and better funding and information technology infrastructure could be a huge help to the organization.

Information technology infrastructure used by the Cape Town SAPS like CCTV and LPR cameras is procured and owned by the City of Cape Town (Swart, 2018). According to the NCPS (1996), all levels of government (national, provincial and local) have roles to play in preventing crime. The NCPS (1996) does not really explain the role of local government but emphasises local government must be at the centre of crime prevention. The four pillars of the NCPS (1996) must be utilised as a framework for Local Government Crime Prevention Strategy or priorities to build the ability to deal with crime prevention plans.

The Western Cape Provincial government (WCG), in playing its role in the national crime prevention strategy, devised the Western Cape Safety Plan 2019-2024. Data and technology were to guide the implementation of this plan. Moreover, the deployment of resources is to be based on evidence. Data-informed deployment of resources and policing based on evidence are at the

centre of the WCG safety plan and intended to increase the ability of crime fighting and utilisation of current law enforcement officers. The plan relies on successful collaboration with CoCT in funding, training and deploying law enforcement officers (Western Cape Safety Plan, 2019-2024).

## 2.5    Chapter summary

This chapter reviewed the literature related to this study as well as SAPS reports relevant to the study. Relevant literature included the legislative framework, reports from SAPS to Parliament for accountability of SAPS to national Parliament and Provincial Parliament. The next chapter focuses on the research design and methodology, and the sampling methodology as well data analysis. It also discussed the ethical considerations required and implemented for this study.

# CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

## 3.1 Introduction

This chapter deals with the design and methodology used in this study, the sampling method selected and the data collection techniques used. Various data collection techniques are discussed as well as the population for the study. Thus, the chapter deals with the design of the study, outlined in Chapter One, and how it was actually implemented. Regarding the design, a case study approach was adopted, while in terms of research methodology mixed methods (that is, a combination of qualitative and quantitative methods) was employed to collect and analyze the data.

## 3.2 Research paradigm

"A paradigm is defined as a set of beliefs that leads to particular research approach, such as a scientific approach, and this influences within that approach how research should be done" (Farquhar, 2012:28). According to De Vos et al. (2011:41) "paradigm has a major impact on the philosophy and methodology (qualitative and quantitative)". Creswell and Creswell (2018:5) characterise paradigms as "Philosophy (or worldviews) described as basic sets of beliefs that guide action. Positivism, pragmatism and interpretivist are well known philosophical worldviews" For De Vos et al. (2011:8) the ''Interpretive approach aims to understand people''. Easterby-Smith et al. (2008:57) describe positivism as having a key idea which is that "a social world exists externally, and that its properties should be measured through objective methods rather than being inferred subjectively through sensation, reflection or intuition''.

In the view of Creswell and Creswell (2018:10-11), "Pragmatism does not see the world as an absolute unity. In a similar way mixed methods look to many approaches for collecting and analysing data, rather than subscribing to only one'' Further argument by these authors sees that pragmatism considers intended consequences and that when mixed methods is used it must be justified. It does not confine itself in one system of reality and philosophy (Creswell and Creswell, 2018:11). This study adopted pragmatism approach because it is more relevant for this study. This study used two methods in collecting and analyzing data, qualitative and quantitative.

## 3.3 Sampling

Salkind (2014:95) defines a sample as "a subset of the population", while a 'population' is defined as "a group of potential participants to whom you want to generalize the results of your study''. The sample for this the study was made up of two sets of SAPS personnel. The first consisted of 354 officers of Cape Town SAPS Visible Policing Crime Prevention Unit within the ranks of Constable, Sergeant, Warrant Officer and Captain. These members are directly responsible for

the implementation of crime prevention strategy at the station level. A simple random sampling method was used to select a sample of 50 participants from this population to whom a questionnaire was administered to collect quantitative data. The sample size is 14% of the population based on 95% confidence level and 5 % error margin. This sample size is good representative of the population (Saunders et al., 2012:266)

The second sample consisted of one senior manager: provincial commander at SAPS Provincial Head Office (PHO), Western Cape, in Cape Town, who is responsible for finance budget section Purposive sampling was used to select this senior manager from the population to be interviewed for qualitative data. The rationale for selecting was to collect data from decision-maker SAPS PHO finance (budget section). The SAPS PHO has one senior manager at the level of provincial commander (Colonel) who has overall responsibility for the budget in the Province. The provincial commander considered to be well informed in matters related to SAPS budgeting in the province, his / her contribution could assist this study. The study acknowledges that there is a budget committee as the budget of the SAPS Western Cape is not the responsibility of one person.

### 3.4.1 Data collection methods

Semi-structured interviews and a five-point Likert scale questionnaire were used as instruments to collect data from selected participants. According to Salkind (2014:142-143), "The Likert scale is an attitude assessment scale that assesses individual feelings about something or object." Athanasou et al. (2012:89) define an interview "as a data collection method in which the researcher asks respondents open-ended questions to learn about ideas, beliefs, views and opinions – and semi-structured interviews as the type of interview that is neither fixed nor free. The semi-structured interview allows deviation from prepared questions and, as a result, gives greater opportunity to get more information from the respondent than a structured interview (Bryman & Bell, 2015:212-14). In a structured interview, the interview questions follow a certain fixed order and avoid deviation.

The semi-structured interview is more effective than the structured interview as follow-up questions can be asked, which create an opportunity to get more information from the respondent. It also answers questions in detail that cannot be addressed by a questionnaire. The questionnaire is another data collection instrument that is reliable, convenient and the respondent can self-administer it.

### 3.4.2 Data collection

Data is described as the collection of bits and pieces of information found in the environment and

it is critical to obtain credible data (Athanasou et al. (2012:88). There are many different data collection techniques, as shown in Table 3.1. The research method adopted directs which technique to use. This study used interviews and a questionnaire. Both sources of data were supported by secondary sources such as documents collected during the literature review, including SAPS strategic plans, operational plans and reports submitted to Parliament, some of which were reviewed and analyzed.

A pilot study is important to be conducted before the actual study so that any error in wording and questions can identified and corrected before the roll out of the full research. It also gives opportunity to test adequacy of instrument, sample as well as analysis (De vos et al. 2011:237). The pilot study was conducted with three respondents, police officers from Cape Town, Western Cape to test adequacy of the questionnaire no errors or inadequacy found and thereafter the full roll out of the questionnaire was conducted.

**Table 3:1 Data collection techniques**

| Data collection techniques | | |
|---|---|---|
| | **Qualitative** | **Quantitative** |
| Interview | Focus group | Survey |
| | Telephone interview | Questionnaire |
| Observation | Participant observation | Standardized test |
| Documents | Personnel documents | |
| | Public documents | |

Source: Athanasou et al. (2012:89)

### 3.4.3 Questionnaire

According to De Vos et al. (2011:212), "the Likert scale used in research to express the attitude or other responses in terms of ordinal-level categories that are ranked along the continuum. The Likert scales usually asks the respondents to indicate if they agreed or disagreed with a statement". The questionnaire, which was simple and self-explanatory, was administered to the respondents. It was divided into two sections: (i) Section A sought biographical information of respondents, and (ii) Section B consisted of statements for the respondents. These statements were divided into four subsections, each of which had four or five statements. A copy of the questionnaire was handed over to the respondents, which they returned after completion. The questionnaire was in simple language so that respondents could easily understand it

### 3.4.4 Semi-structured interview

One-on-one semi-structured interviews were conducted with one respondent. The data collected was recorded on an audio recorder, accompanied by written notes. According to De Vos et al. (2011:342), the researcher collects data by directly engaging with people who know and can contribute the relevant data required. The purpose of the interview was to collect rich and descriptive data to enable the researcher to understand the social reality of participants.

### 3.5     Reliability and validity

For any research, it is important to collect valid data in order to arrive at reliable outcomes. Brynard et al**.** (2014:50) explain reliability as accuracy and consistency. For Habib et al. (2014) validity "refers to the accuracy of the measured extent to which a score truthfully represents a concept." Validity may be internal or external. The latter refers to the extent to which an experimental or independent variable can be said to be truly responsible for change in a dependent variable, while the former relates to how accurately results of a study can be generalised beyond the studied population.  External validity is described as "accuracy with which experimental results can be generalized beyond the experimental subjects, while internal validity exists to the extent that an experimental variable is truly responsible for any variable in the dependent variable"(Habib et al. ,2014). This study ensured validity and reliability by collecting necessary, relevant and correct data. In both the design of the questionnaire and interview questions, expert assistance was sought from a statistician to confirm content validity. The reliability test was conducted using Cronbach Alpha test, which confirmed positive results. Convergent validity and discriminant reliability tests conducted, it gave positive results.

### 3.6     Bias

Bias is described as the decision as to who to include in a sample,this decision must be heavily influenced personal feelings and availability of respondents (Bryman et al. (2014). Bias in sampling or data collection discredits the quality of the research. Consequently, avoiding bias is very important. There are different forms of bias including sampling bias, gender bias, and race bias. In this study, all forms of bias were avoided to ensure credibility of the results. In order to avoid bias, respondents for the first data collection sample (the questionnaire) were randomly selected, while the two interviewees for the second data collection aspect (interview) were selected based on managerial responsibilities.

### 3.7     Data analysis

After data is collected, it must be analysed to separate relevant data for use from the irrelevant

data. According to Brynard et al (2014:62), the researcher must filter huge amounts of data available until only the data relevant for the research remains. There are two approaches in qualitative data analysis, namely: inductive and deductive reasoning. According to Bertram and Christiansen (2014:117), inductive reasoning works from specific observation to broader generalisation and theories, while deductive reasoning works from general to more specific. Both approaches are relevant and used in this study to analyse the data. The data collected was analysed using thematic analysis for qualitative data, while SPSS 26 was used to analyse quantitative data. Thematic analysis, according to Bryman et al. (2014) is "a qualitative analysis method that is flexible method not tied to any philosophical orientation, its goal to analyse, identify and describe patterns or themes across the data set".

## 3.8 Ethical considerations

Ethical considerations are critical for any research study. Research ethics does not only gain the trust of participants, it ensures responsibility of the researcher to protect participants (Creswell & Creswell, 2018:88). De Vos et al. (2011:115-116) identify several ethical issues to be considered, including consent, avoidance of harm to participants and voluntary participation. This study considered ethical issues during data collection from respondents and afterwards to avoid any unethical behaviour. In protecting the respondents and complying with ethical considerations in this study, the following measures were taken:

### 3.8.1 Harm to participants

The participants were not exposed to any form of harm or prejudice during or after the study.

### 3.8.2 Informed consent

The nature of the study and its purpose were explained to the respondents prior to their participation, and they were assured of their anonymity.

### 3.8.3 Voluntary participation

All participants voluntarily participated and the right to withdraw at any time was explained to them. No payment or promise of any reward was made to the participants.

### Consent

Consent to conduct the study in the SAPS environment was obtained from the SAPS prior to the collection of data and the letter of permission was shown to the participants.

### Privacy

Confidentiality and anonymity of the participants were maintained throughout the study. All the respondents were assured that their participation as well their responses would be kept confidential, and the responses would not be used for any other purpose other than this study.

### 3.8.4 Ethical clearance

Ethical clearance was obtained from the Ethics Committee of the Faculty of Business and Management Sciences (CPUT) prior to collection of the data.

### 3.9 Chapter summary

This chapter dealt with research design and methodology. It discussed the data collection methods, data collection instruments, sampling techniques used and ethical considerations addressed. In the next chapter, the collected data is analysed and discussed.

# CHAPTER FOUR: DATA PRESENTATION, ANALYSIS, DISCUSSION AND FINDINGS

## 4.1    Introduction

This chapter focuses on the presentation of the data collected from the field, systematic analysis of the data and discussion of findings/results obtained from the data analysis generated using data analysis software, notably the XLSTAT excel application software and SPSS 26 software. Qualitative data is presented based on thematic analysis.

The aim of the study was to measure the effect of budgetary allocation on the South African Police Service's crime prevention strategy (CPS) in Western Cape Province of South Africa. This chapter specifically sought to provide answers to critical research questions. This is against the background of increasing population in the Province and the United Nations' Standard on Policing, which recommends that one police officer should only look after 220 people for effective and efficient CPS strategy. Although many African countries fall below this standard and believe that other para-military neighbourhood watches can help policing with modern technology, which requires periodic training. Any CPS requires financial resources that need to be properly planned in the budget (Van der Spuy & Röntsch, 2008).

There are five research questions for this study, which are: first, what is the effect of budgetary allocation on personnel training regarding crime prevention strategies and persistent population increase? Secondly, how has the budgetary trend affected SAPS recruitment of police personnel in view of the cost containment implemented by the South African national government? Thirdly, how has the budgetary allocation affected the crime prevention strategy in SAPS in terms of police personnel training and acquisition of modern technology to combat crime? Fourthly, how has the budgetary allocation affected the SAPS crime prevention strategy in view of the increasing population in Cape Town?  Lastly, how well are the resources available to the SAPS aligned with the population in view of the United Nations' standard for policing?

The first part of the response analysis contains the respondents' demographic information distribution, which includes respondents' age, gender, and experience level in the organisation's structure, their qualifications and whether their qualification is business related. The second part deals with business demographics and control variables that dictate the size of a business, which

consist of number of employees and annual turnover.

## 4.2.1    Questionnaire response

The demographic information presents background information about the respondents and the number of years working with SAPS. This is crucial in any research that uses a questionnaire as a data collection instrument, as the understanding of crime prevention strategies may differ across the respondents' demographics, which could be gender, respondents' level of education and/or years of experience. Bias was minimised in the responses by only including three demographics that are important in perception studies based on what obtains in the literature.

### 4.2.1.1   Gender distribution of the respondents

The first demographic identified as important is gender distribution of the respondents. Gender is a major factor that affects perception as several studies identified gender-based perception can result to biasness if gender is included in the respondents' sample. Table 4.1 row 1 shows male respondents covers 63% of the total sample, indicating the expected sample structure of SAPS members in the Western Cape and police force throughout the world is skewed towards male gender. The remaining respondents identified as female constituted 37% of the respondents, representing a similar proportion of plausible sample from South Africa police force. Figure 4.1 also depicts the same information.

**Table 4.1: Descriptive analysis of respondents' demographics**

| Variable\Statistic | Frequency | Percentage |
|---|---|---|
| (i) Gender:  Male | 31.00 | 63.265% |
| Female | 18.00 | 36.735% |
| Total | 49 | 100% |
| (ii)  Education Qualification: | | |
| Matric | 39.00 | 79.592% |
| Tertiary education | 10.00 | 20.408% |
| Total | 49 | 100% |
| (iii)  Working experience: | | |
| 1-5 | 10 | 20.40% |
| 6-10 | 21 | 32.653% |
| 11-20 | 21 | 42.857% |

| | | |
|---|---|---|
| 21-40 | 2 | 4.082% |
| Total | 49 | 100% |

Source: Fieldwork (2021)



**GENDER DISTRIBUTION OF THE RESPONDENTS**

FEMALE 37%

MALE 63%
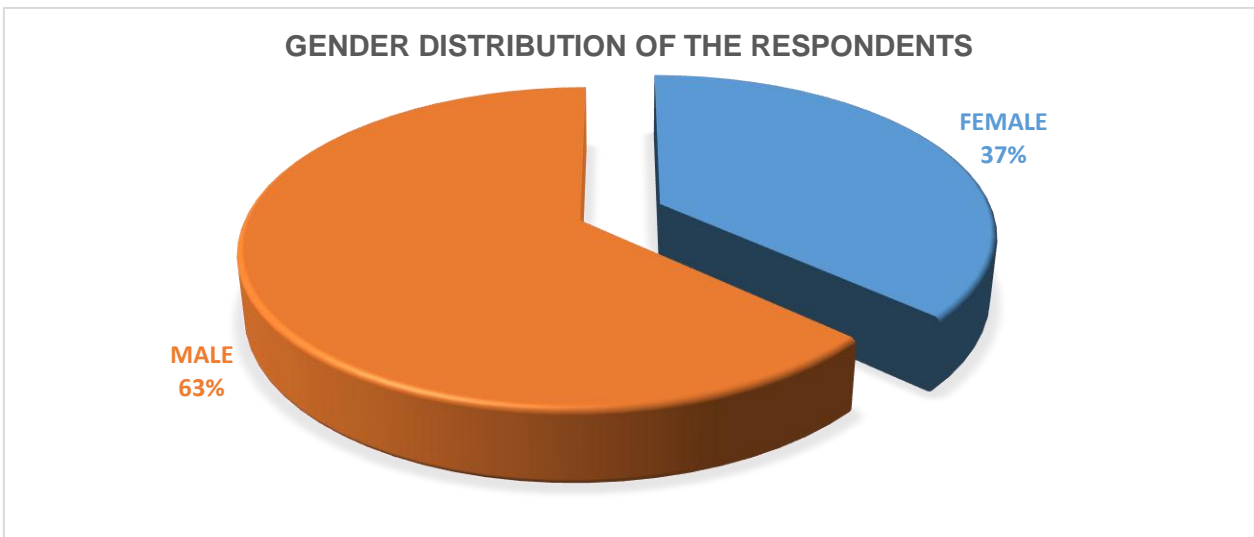
**Figure 4.1: Gender distribution of respondents**

Source: Fieldwork (2021)

#### 4.2.1.2 Distribution of respondents' level of education

Table 1 row 2 shows the respondents' education level, which indicates that 80% of the respondents are holders of matriculation certificates, while the remaining 20% are in possession of tertiary education qualifications. Analysis has shown that there are very few SAPS staff who hold tertiary qualifications. Figure 4.2 conveys similar information.

**RESPONDENT'S EDUCATION LEVEL**

TERTIARY
EDUCATION
20%

MATRIC
80%
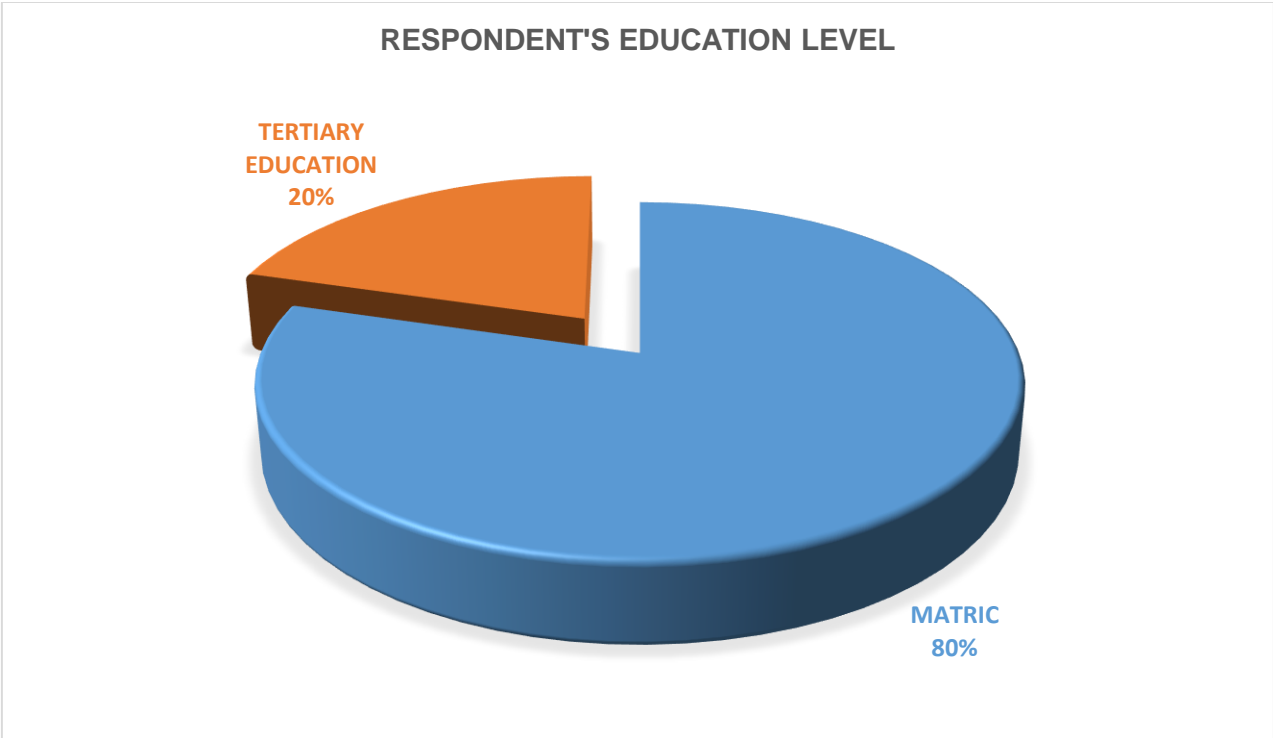
**Figure 4.2: Respondents' educational level**

Source: Fieldwork (2021)

### 4.2.1.3   Respondents' work experience

The mode of distribution depicted in Table 4.1 row 3 indicates that the majority of employees (53%) have been working for the SAPS for between 1 and 10 years, while 47% of staff have been working for SAPS for more than 11 years.

**RESPONDENT'S WORKING EXPERIENCE**

- 21-40: 4%
- 1-5: 20%
- 11-20: 43%
- 6-10: 33%
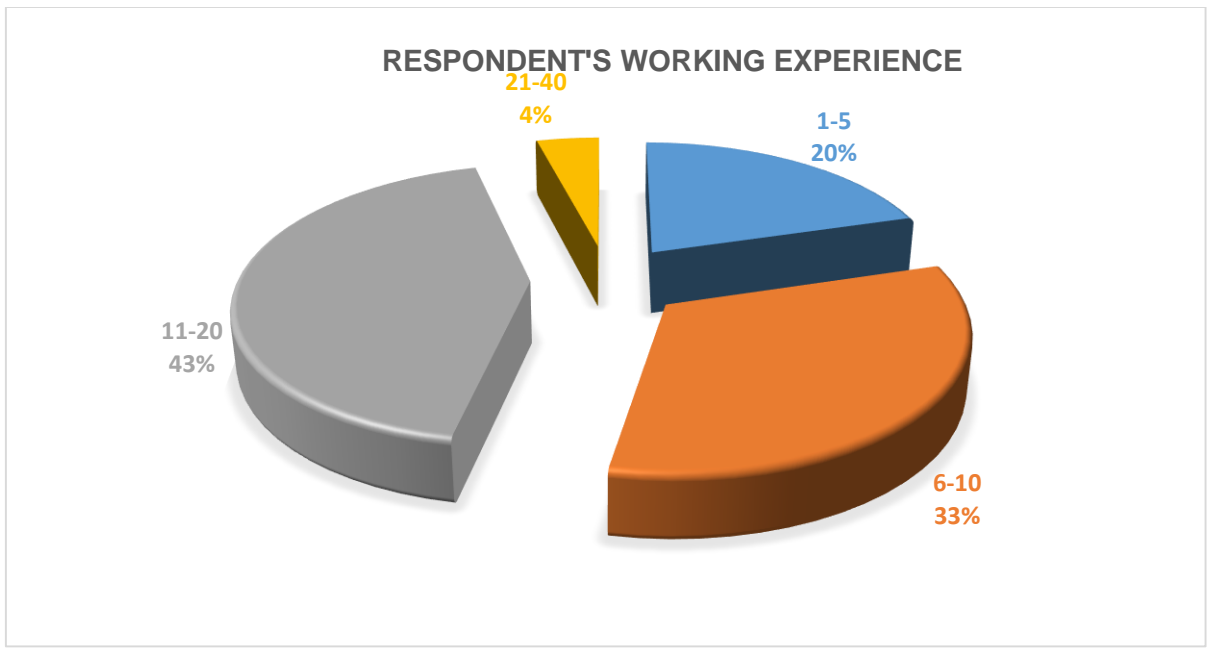
**Figure 4.3: Respondents' working experience**

Source: Fieldwork (2021)

### 4.3.1    Research questions

i.    What is the trend of SAPS budgetary allocation over the past decade in view of the increasing population in Cape Town?

ii.   How has the budget trend affected SAPS recruitment of police personnel in view of cost containment by South African national government? How has the budget allocation trend affected SAPS police recruitment exercise?

iii.  How has the budgetary allocation affected crime prevention strategy in SAPS in terms of police personnel training and acquisition of modern technology to combat crime?

iv.   How has the budgetary allocation affected the SAPS crime prevention strategy in view of increasing population in Cape Town, Western Cape?

v.    How well are the resources available to the SAPS aligned to the United Nations recommended guidelines?

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### 4.3.2 Trend of SAPS budgetary allocation over the past decade in view the increasing population in Cape Town

Figure 4.4 indicates that for a decade that is, between 2010 and 2020, there was no significant increase in SAPS budget despite a persistent increase in the crime rate in South Africa. Moreover, if the budgetary allocation to SAPS should account for the annual inflation rate, which remained in single digits for the period under consideration, it means the budgetary allocation has been relatively constant for a decade. SAPS, like any other government department, is affected by several underfunding issues which, in turn, negatively affect the performance of the organisation as identified in the literature (Ehlers & Lazenby 2010; Simelane et al. 2017; Cruywagen, 2019; Maqhina, 2019).

Even when one considers the period between 2007 and 2020, the only significant change that occurred was in the budgeted year in 2009, which was suspected to be driven by preparation for the FIFA World Cup in 2010. In addition, the establishment of the Directorate for Priority Crime Investigation (DPCI), also known as The Hawks elite investigating unit, was initiated in the same year. The organisation employed 7000 additional personnel with over 150 000 new vehicles purchased and that year also recorded several notable reductions in the crime rate.

The then National Commissioner of Police, now Minister of Police (BH Cele), reported that five out of seven contact crime categories reduced from -2.9% to -7.2% in the same year of more than 29% increase in budgetary allocation to SAPS in Western Cape Province. Despite the progress reported, due to the increase in the budgetary allocation, an increase in budgetary allocation did not match the change in level of inflation. The increase in budget allocation means more resources allocated for prevention of crime.  Figure 4.4 shows the budgetary allocation to SAPS Western Cape from 2007 to 2020.
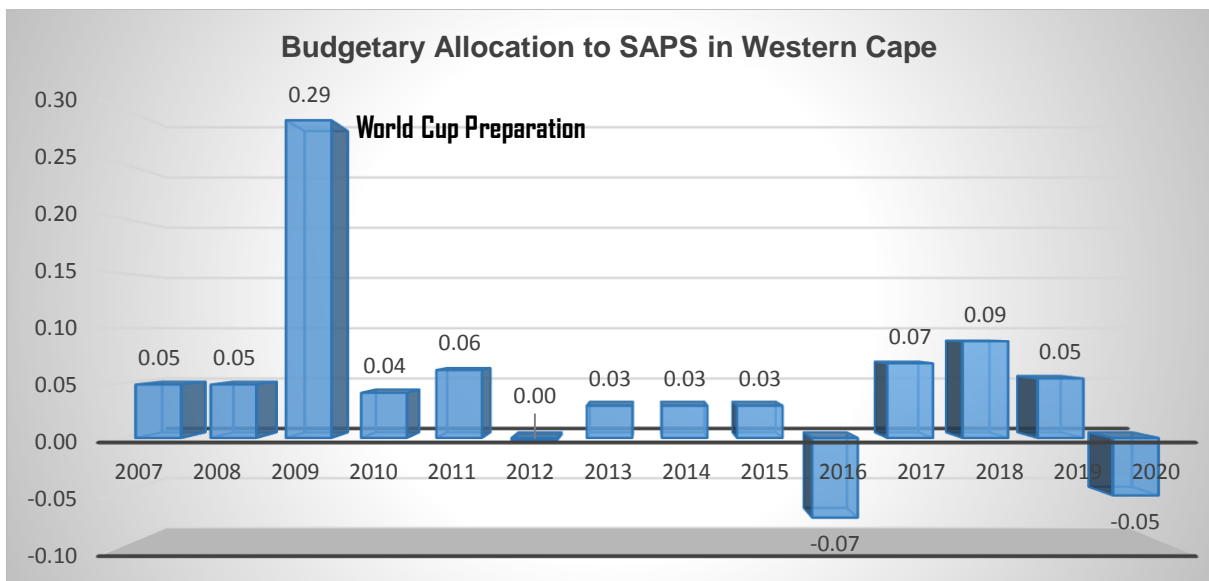
**Figure 4.4: Trend in budgetary allocation to SAPS in Western Cape: 2007 to 2020**

Source: SAPS WC Annual Reports 2015-2019 SAPS WC Performance Plan 2020

### 4.3.3 Budgetary allocation and South African Police Service Crime prevention Strategy

In Table 4.2, the response to the first statement indicates that less than 30% of the respondents agreed their station provides all the resources necessary to do work effectively. The response to this statement raises a critical issue regarding availability of the resources needed to prevent crime in Western Cape. In effect, about 59% disagreed that they are provided needed resources to work effectively as police officers to prevent crime. The second statement relates to provision of training in all resources used in daily activities. In Table 4.2, the percentage of respondents who disagreed was 47%, just slightly more than those who agreed with the statement (44.9%). This means respondents were almost equally divided on this issue. It would seem that there was neither enough needed resources nor adequate training provided to respondents in existing resources to enable them to carry out their daily activities effectively.

The third statement suggests that all resources needed in performance of respondents' duties were procured within 60 days. About 45% responded in the negative, while 34.7% affirmed, but 20.4% were unsure. Responses to the last statement indicated that 22.5% of the respondents were paid overtime for work done to improve organizational performance in the last six months, but 70% did not agree with the statement.

Table 4.2 summarily revealed that almost 70% (69.9%) of the respondents neither agree nor strongly agree with the effectiveness of budgetary allocation of SAPS in Western Cape. The result revealed the likelihood of inefficiency in the system as the respondents failed to get all resources

needed to work effectively. The resources range from financial resources, to timely procurement and training.

**Table 4.2: Response of the respondents to effectiveness of budget allocation to South Africa Police Service crime prevention**

| | Response | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| | Strongly Disagree | Disagree | Not Sure | Agree | Strongly Agree | Total |
| The station provides all the resources that are necessary to do I my work effectively | 16 | 13 | 7 | 12 | 1 | 49 |
| | 32.7% | 26.5% | 14.3% | 24.5% | 2.0% | 100.0% |
| The training on all resources that you use on your daily activities has been provided | 7 | 16 | 4 | 16 | 6 | 49 |
| | 14.3% | 32.7% | 8.2% | 32.7% | 12.2% | 100.0% |
| The resources that were needed in performance of my duties was procured within 60 days | 8 | 14 | 10 | 14 | 3 | 49 |
| | 16.3% | 28.6% | 20.4% | 28.6% | 6.1% | 100.0% |
| I worked a paid overtime in the last 6 months to improve the performance of the organization | 22 | 12 | 4 | 9 | 2 | 49 |
| | 44.9% | 24.5% | 8.2% | 18.4% | 4.1% | 100.0% |
| Total | 53 | 55 | 25 | 51 | 12 | 196 |
| | 27.0% | 28.1% | 12.8% | 26.0% | 6.1% | 100.0% |

Source: Fieldwork (2021)

## 4.3.4 The effect of budgetary allocation on the SAPS crime prevention strategy in view of increasing population in Cape Town

Table 4.3 presents respondents' views on how the budgetary allocation affects the effectiveness of crime prevention strategies in view of the increasing population in the Western Cape. S explained above, there is a consistent increase in rural-urban migration in South Africa and the Western Cape is no exception. The majority of municipalities in the province are in urban areas. The city life, school, tertiary institutions and job opportunities serve as attractions to many rural dwellers who consistently migrate to the Western Cape, which increases the population and the demand for police services to prevent crime.

The first statement in Table 4.3 refers to regular training in the use of firearms. Most respondents (65%) affirmed undergoing regular training in effective use of firearms, but 32.7% responded in the negative, while 2% remained neutral. The second statement directly relates to service training on crime prevention. The results show that 63% of the respondents undergo regular service training on crime prevention strategies. The third statement relates to respondents' knowledge of SAPS crime prevention strategies for the province. The response shows more than 61% of the respondents have knowledge of crime prevention strategies of SAPS, while 39% agreed, disagreed or were unsure.

The last but one item, is a direct question regarding whether budget constraints negatively affected effective implementation of SAPS crime prevention strategies in relation to increased population. About 47% of the respondents responded affirmatively, while only 12% said it did not. Interestingly,

however, about 41% were unsure. The last statement refers to population increase and SAPS' crime prevention efforts. The results indicate that about 67% of the respondents thought population increase in their policing area affected their crime prevention efforts negatively, while only 20% disagreed.

**Table 4.3: Budgetary allocation and how it affects the SAPS crime prevention strategy in view of increasing population in Cape Town**

| | Response | | | | | |
|---|---|---|---|---|---|---|
| | Strongly Disagree | Disagree | Not Sure | Agree | Strongly Agree | Total |
| I undergo regular firearm training to use my firearm effectively | 9 | 7 | 1 | 28 | 4 | 49 |
| | 18.4% | 14.3% | 2.0% | 57.1% | 8.2% | 100.0% |
| I received in service training on crime prevention | 7 | 9 | 2 | 27 | 4 | 49 |
| | 14.3% | 18.4% | 4.1% | 55.1% | 8.2% | 100.0% |
| I know the current SAPS crime prevention strategy | 6 | 7 | 6 | 28 | 2 | 49 |
| | 12.2% | 14.3% | 12.2% | 57.1% | 4.1% | 100.0% |
| Did budget constraints negatively affect implementation of crime prevention strategy | 2 | 4 | 20 | 17 | 6 | 49 |
| | 4.1% | 8.2% | 40.8% | 34.7% | 12.2% | 100.0% |
| The increase of population in my policing area affected negatively my crime prevention efforts. | 5 | 5 | 6 | 24 | 9 | 49 |
| | 10.2% | 10.2% | 12.2% | 49.0% | 18.4% | 100.0% |
| Total | 29 | 32 | 35 | 124 | 25 | 245 |
| | 11.8% | 13.1% | 14.3% | 50.6% | 10.2% | 100.0% |

Source: Fieldwork (2021)

## 4.3.5 How budgetary allocation affected the crime prevention strategy in SAPS in terms of police personnel training and acquisition of modern technology to combat crime

Table 4.4 presents respondents' views on how budgetary allocation affected crime prevention strategies in terms of police personnel training and acquisition of modern technology to combat crime in the Western Cape. In response to the first statement, regarding availability of all necessary resources to work effectively, a little more than a simple majority of respondents (53%) disagreed, while 34% agreed. On the second statement, 65% of respondents agreed on the importance of modern technology in preventing crime, but regarding the third statement, an majority of respondents (69%) disagreed they have modern equipment to carry out their duties. Further, a vast majority of respondents (69%) disagreed with the fourth statement relating to having received training in using the modern technology needed to prevent crime. Finally, regarding the negative effect of the budget on acquisition of technology to prevent crime, 61% agreed, while 24% disagreed.

**Table 4.4: Budgetary allocation effect on crime prevention strategy in SAPS in terms of police personnel training and acquisition of modern technology to combat crime**

| | Response | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| | Strongly Disagree | Disagree | Not Sure | Agree | Strongly Agree | Total |
| I have all the resources that are necessary to do my work effectively | 10 | 16 | 5 | 17 | 1 | 49 |
| | 20.4% | 32.7% | 10.2% | 34.7% | 2.0% | 100.0% |
| The modern technology plays a role in prevention of crime | 9 | 4 | 4 | 23 | 9 | 49 |
| | 18.4% | 8.2% | 8.2% | 46.9% | 18.4% | 100.0% |
| I do have modern equipment that is needed to carry out my duties | 14 | 17 | 6 | 10 | 2 | 49 |
| | 28.6% | 34.7% | 12.2% | 20.4% | 4.1% | 100.0% |
| I do have training in modern technology that is used to prevent crime | 14 | 20 | 5 | 7 | 3 | 49 |
| | 28.6% | 40.8% | 10.2% | 14.3% | 6.1% | 100.0% |
| The budget cut has negatively affected acquisition of technology needed to prevention crime duties. | 6 | 6 | 7 | 25 | 5 | 49 |
| | 12.2% | 12.2% | 14.3% | 51.0% | 10.2% | 100.0% |
| Total | 53 | 63 | 27 | 82 | 20 | 245 |
| | 21.6% | 25.7% | 11.0% | 33.5% | 8.2% | 100.0% |

Source: Fieldwork (2021)

### 4.3.6 Analysis of how budget trends affect SAPS recruitment of police personnel in view of the cost containment of the South African national government

Table 4.5 presents respondents' view in percentage terms regarding budgetary allocation for recruitment of new officers. The results relating to the first statement indicated that more than 60% agreed new recruits had been employed in the past five years. On the statement that budget shortage affected the recruitment of new officers, 38,8% agreed, 36.7% were unsure and 24% disagreed. About 45% of the respondent disagreed with the third statement that they have personal coaches to guide them to improve performance, about 41% agreed and 14% were neutral. The majority of respondents 49% disagreed that the employer allows them to be innovative in performing their duties. However, about 37% agreed and 18% were neutral.

**Table 4.5: Cross-tabulation on budgetary allocation effect on SAPS recruitment of new police officers**

| | Response | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| | S-Disagree | Disagree | Not Sure | Agree | S-Agree | Total |
| The new members have been recruited in my environment in the past five years. | 6 | 2 | 7 | 28 | 6 | 49 |
| | 12.2% | 4.1% | 14.3% | 57.1% | 12.2% | 100.0% |
| The budget shortage affected the recruitment of new members | 6 | 6 | 18 | 14 | 5 | 49 |
| | 12.2% | 12.2% | 36.7% | 28.6% | 10.2% | 100.0% |
| I have a person coach and guide me in doing my duties which helps me to improve my performance | 9 | 13 | 7 | 17 | 3 | 49 |
| | 18.4% | 26.5% | 14.3% | 34.7% | 6.1% | 100.0% |
| My workplace allows me to be innovative in performance of my duties. | 11 | 11 | 9 | 15 | 3 | 49 |
| | 22.4% | 22.4% | 18.4% | 30.6% | 6.1% | 100.0% |
| Total | 32 | 32 | 41 | 74 | 17 | 196 |
| | 16.3% | 16.3% | 20.9% | 37.8% | 8.7% | 100.0% |

Source: Fieldwork (2021)

### 4.3.7 Inferential data analysis

Inferential statistics were used to answer the research questions raised in the study that involved measuring the effect of budgetary allocation on crime prevention strategies in the Western Cape. The bootstrap resampling of 1000 respondents was conducted, which indicated negligible level of bias, and showed the data was reliable for inferential statistics. Small sample bias of inconsistent level of estimates was absent.

Three null hypotheses were framed on variables of interest to the study based on items in the questionnaire. Four variables were identified, with budgetary allocation (BA) as an exogenous variable with four items discussed in Table 4.2. The remaining three identified were crime protection strategies (CPS1 to CPS 3), which are captured in Tables 4.3, 4.4 and 4.5, respectively. The three hypotheses were stated in terms of null hypothesis to be either rejected or confirmed based on statistically significant impact test of path modeling in the partial least square structural equation model designed in Figure 4.5.

1. $H_0$: Budgetary allocation does not significantly affect crime prevention strategy in the area of the police recruitment exercise.
2. Budgetary allocation does not significantly affect Crime Prevention Strategy in the modern technology deployment and its training.
3. $H_0$: Budgetary allocation does not significantly affect crime prevention strategy on how to handle increased population

**Figure 4.5: Budgetary allocation and crime prevention strategies of South Africa Police Service in Western Cape Province model design**

Source: Fieldwork (2021)

BUDGETARY ALLOCATION AND CRIME PREVENTION STRATEGY MODEL IN WESTERN CAPE

w(B) = 0.408
Corr = 0.774
Corr(B) = 0.774

I undergo regular firearm training to use my firearm effectively

w(B) = 0.242
Corr = 0.671
Corr(B) = 0.670

I received in service training on crime prevention

w(B) = 0.345
Corr = 0.660
Corr(B) = 0.659

I know the current SAPS crime prevention

w(B) = 0.359
Corr = 0.715
Corr(B) = 0.714

Did budget constraints negatively affect implementation of crime prevention

w(B) = 0.088
Corr = 0.415
Corr(B) = 0.415

The increase of population in my policing area affected negatively my crime prevention efforts.

w(B) = 0.403
Corr = 0.859
Corr(B) = 0.858

The station provides all the resources that are necessary to do I my work effectively

H1: BA does not affect CPS1

Corr = 0.560
Reg = 0.560
t = 4.631
Pr > |t| < 0.001

Personel Training on Population (CPS1)

The new members has been recruited in my environment in the past five years.

w(B) = 0.367
Corr = 0.439
Corr(B) = 0.413

w(B) = 0.308
Corr = 0.722
Corr(B) = 0.723

The training on all resources that you use on your daily activities has been provided

Budgetary Allocation

The budget shortage affected the recruitment of new members

w(B) = -0.420
Corr = 0.068
Corr(B) = 0.050

Police Regular Recruitment Excercise(CPS 3)

w(B) = 0.299
Corr = 0.827
Corr(B) = 0.827

The resources that was needed in performance of my duties was procured within 60 days

H3: BA does not affect CPS3

Corr = 0.345
Reg = 0.345
t = 2.517
Pr > |t| = 0.015

I have a person coach and guide me in doing my duties which helps me to

w(B) = 0.023
Corr = 0.144
Corr(B) = 0.135

w(B) = 0.286
Corr = 0.641
Corr(B) = 0.641

I worked a paid overtime in the last 6 months to improve the performance of the organisation

H2: BA does not affect CPS2

Corr = 0.671
Reg = 0.671
t = 6.205
Pr > |t| < 0.001

Modern Technology Deployment and Training (CPS2)

My workplace allows me to be innovative in performance of my duties.

w(B) = 0.901
Corr = 0.919
Corr(B) = 0.886

Ctrl M: Define the manifest variables
Ctrl L: Link two latent variables after selecting them
Ctrl R: Reverse the direction of a link
Ctrl D: Double direction
Ctrl O: Change or reset the position of the manifest variables

I have all the resources that are necessary to do my work effectively

The modern technology play a role in prevention of crime

I do have modern equipment that is needed to carry out my duties

I do have training in modern technology that is used to prevent crime

The budget cut has negatively affected acquisition of technology needed to prevention crime duties.

w(B) = 0.110
Corr = 0.422
Corr(B) = 0.422

w(B) = 0.375
Corr = 0.845
Corr(B) = 0.845

w(B) = 0.253
Corr = 0.597
Corr(B) = 0.597

w(B) = 0.280
Corr = 0.799
Corr(B) = 0.799

w(B) = 0.355
Corr = 0.736
Corr(B) = 0.736

**Figure 4.6: Budgetary allocation and crime prevention strategies of South Africa Police Service in Western Cape Province: model result estimated**

Source: Fieldwork (2021)

### 4.3.8   Analytical methods

Variance-based structural equation modeling analysis (SEM) has gained prominence in the literature because of its non-parametric attributes, and its statistical complexity, which fit small and medium sample data (Peng & Lai, 2012; Ali, Hussain, Konar, & Jeon, 2017, Hair, Ringle, & Sarstedt, 2013) relative to covariance-based SEM. Covariance-based SEM, requires several statistical assumptions and has a low level of predictability of the model, coupled with high volume

of data requirement. For this reason, several researchers without the required volume of data avoid using it. Conversely, variance-based SEM, also known as partial least square (SEM), runs even when the number of parameters is more than the number of observations. Several studies have found that the more the number of samples, the better the estimates, reliability and predictability power of the model.

This study tested the statistical analysis on the hypotheses formulated using Structural Equation Modelling (SEM) by performing partial least squares (PLS) model. The study employed XLSTAT software to conduct the analysis.

PLS has been applied in various fields of study, including operations research and management (for example Cording et al., 2008), marketing (for example, Hennig-Thurau et al., 2006; White et al., 2003), business and other related fields (Ali, Hussain, Konar & Jeon, 2017). The prominence of Partial Least Squares Structural Equation Modeling (PLSSEM) was established a couple of decades ago due to its capacity to construct latent variables based on weighted manifest variables under non-normality conditions regardless of sample size (Hair et al., 2013). This study was limited in sample size with view constructs of latent variable that make the use of PLSSEM imminent for formulating the perception of respondents on the effects of budgetary allocation on crime prevention strategies in the Western Cape, South Africa (Hair et al., 2013).

### 4.3.9   Analysis of measurement model

It is imperative to test the measurement model for convergent validity and reliability of the data before crunching it to PLSSEM model. Assessment of suitability of the data for PLSSEM was done through Average Variance Extracted (AVE), Composite Reliability (CR) and factor loadings based on recommended procedure in the literature (Hair et al., 2006). Table 4.6 shows that all item loadings exceeded the recommended threshold of 0.5 (Ali et al., 2017). Hair et al. (2006) recommend that composite reliability values must exceed 0.7 to have valid indicators construct for latent variable. They also affirm that average variance extracted should be above 0.5 or, sometimes, above 0.4 when the rho reliability exceeded 0.7 as a standard guideline for PLSSEM valid construct of latent variable (Hair et al., 2006).

**Table 4.6: Validity and reliability constructs**

| Constructs | Items | Loadings |
|---|---|---|
| Budgetary Allocation (BA) | The station provides all the resources that are necessary to do my work effectively | .844 |
| AVE = .589 | on your daily activities has been provided | .723 |
| Cronbach's Alpha = .762 | The resources that were needed for the performance of my duties was procured within 60 days | .851 |
| Composite Reliability = .850 | | |
| | I worked a paid overtime in the last 6 months to improve the performance of the organization | .631 |
| Personnel Training on Population (CPS1) | I undergo regular firearm training in order to use my firearm effectively | .736 |
| AVE = .434 | I received in service training on crime prevention | .738 |
| Cronbach's Alpha = .683 | I know/understand the current SAPS crime prevention strategy | .562 |
| Composite Reliability = .798 | Did budget constraints negatively affect implementation of crime prevention strategy | .707 |
| | The increase in population and policing in my area has affected negatively crime prevention efforts. | .572 |
| Police Regular Recruitment Exercises (CPS 3) | New members have been recruited in my environment in the past five years. | .762 |
| AVE = .265 | The budget shortage affected the recruitment of new members | .817 |
| Cronbach's Alpha = .660 | I have a personal coach and he guides me in doing my duties which helps me to improve my performance | .638 |
| Composite Reliability = .798 | My workplace allows me to be innovative in performance of my duties. | .588 |
| Modern Technology Deployment and Training (CPS2) | I have all the resources that are necessary to do my work effectively | .838 |
| AVE = .486 | The modern technology play a role in prevention of crime | .600 |
| Cronbach's Alpha = .730 | I do have modern equipment that is needed to carry out my duties | .812 |
| Composite Reliability = .823 | I do have training in modern technology that is used to prevent crime | .686 |

Source: Fieldwork (2021)

Assessment of discriminant validity is very important prior to estimation of structural path modeling. Discriminant validity deals with the extent to which the measures are not a reflection of some other variables and it is indicated by low correlations between the measure of interest and measures of other constructs, as indicated by Ramayah, Yeap, & Igatius (2013). Table 4:7 shows that the square root of the AVE (diagonal values) of each construct is larger than its corresponding correlation coefficients, pointing towards adequate discriminant validity (Fornell & Larcker, 1982).

**Table 4.7: Discriminant validity (Squared correlations < AVE)**

|  | (BA) | (CPS1) | (CPS 3) | (CPS 2) | Mean C (AVE) |
|---|---|---|---|---|---|
| Budgetary Allocation (BA) | 1 |  |  |  | 0.589 |
| Personnel Training on Population (CPS1) | 0.313 | 1 |  |  | 0.434 |
| Police Regular Recruitment Exercise (CPS 3) | 0.119 | 0.006 | 1 |  | 0.265 |
| Modern Technology Deployment and Training (CPS2) | 0.450 | 0.198 | 0.238 | 1 | 0.486 |
| Mean Communalities (AVE) | 0.589 | 0.434 | 0.265 | 0.486 | **0** |

Source: Fieldwork (2021)

### 4.3.10  Structural model

This structural model was estimated to test the hypothesis raised in the course of the study using XLSTAT software. XLSTAT is advanced statistical analysis software designed by Microsoft group of companies. The software works as ad-in with Microsoft Excel, which has numerous data analysis tools and directly links to R-data analysis software and macro program algorithm. Performing PLSSEM is just a click away inside Excel to generate tens of pages of comprehensive results that are robust enough to justify the fitness of PLSSEM model.

This study had a small sample size, but sufficient according to rule of thumb of the required sample for PLSSEM (Goodhue et al., 2006; Marcoulides & Saunders, 2006; Peng and Lai, 2012). Also, for better statistical power and to significantly reduce random sampling error that can create bias of in results, we adopted 5000 iterations for bootstrapping procedure that test statistical

significance of the model and its weights of sub-constructs.

### 4.4.1  Hypothesis one

**H0: Budgetary allocation does not significantly affect crime prevention strategy in the area of the police recruitment exercise.**

The first hypothesis was formulated as null hypothesis to test if budgetary allocation does not significantly affect crime prevention strategy in the area of regular police recruitment exercise. The path coefficient result showed positive and statistically significant impact of budgetary allocation on crime prevention strategy three ($\beta$ =0.383). This crime prevention strategy explains how paramount regular police recruitment exercises is since the population of Cape Town is consistently increasing. There is always a need to recruit new police officers for two reasons, which are: replacement of retired personnel and replacement of those who resigned to meet the standard requirement of police to population ratio.  The result implies that increase in budgetary allocation, indeed, increases the efficiency and effectiveness of crime prevention strategy regarding persistent training on strategy to deal with population explosion in the policing area.

The explanatory power of budgetary allocation was assessed with guidelines provided in the literature by Chin and colleagues (2008) that classified effect as assessed by $R^2$ to weak (<0.19), moderate (<0.33), and, and lastly substantial (< 0.67). This endogenous variable (CPS1) R2 (0.450) indicated that 45% variance in regular recruitment of SAPS personnel. However, budgetary allocation to SAPS has a substantial effect on regular recruitment of personnel in SAPS to preventing crime.

Table 4:9 provides summarised statistics on overall good fit of the model, which explains post-estimation on the relevance of the result. The first indicator of relevance is that the average $R^2$ must be greater than 0.10 to have predictive relevance in PLSSEM as recommended by Falk and Miller (1992) and iterated by Ali, Hussain, Konar, and Jeon (2017). Accordingly, all three hypotheses $R^2$ of the model exceeded 0.10 threshold of relevance with an average $R^2$ of 0.294, an indication that a moderate effect of budgetary allocation to SAPS on three explained crime prevention strategy identified in the study.

The overall goodness of fit indicator, as recommended by Hoffmann and Birnbrich (2012), classifies three thresholds of effect as measured by GOF large (0.36<), GOF medium (0.25<) and GOF small (0.1<). The GOF is calculated with the formula $\sqrt{(R^2 \times AVE)}$ =0.362. The result

indicates large goodness of fit, which implies that the PLSSEM predictability is valid, and the model has high policy relevance to SAPS on crime prevention strategy and the effect of inadequate budget. More so, the sample reuse techniques, as measured by ($Q^2$), also adds to the predictive relevance of the model, as indicated in the literature (for example, Chin et al., 2008; Ali, Hussain, Konar & Jeon, 2017).

The blindfolding procedure suggested that $Q^2$ captures how systematic the data collection procedure was reconstructed for empirical analysis based on PLSSEM parameters. The interpretation of $Q^2$ in the literature seems straightforward as positive indicated and well collected. The re-constructed and structured data and negative indicated, unstructured and not well data for empirical analysis not fit for PLSSEM. This study revealed positive 0.237 of $Q^2$, which indicates more than satisfactory level of fitness of our data structure for PLSSEM (Fornell & Cha, 1993; Chin, 2010).

Finally, on model relevance, the adoption of $f^2$ as another confirmatory analysis on model effect size and relevance is gaining prominence in the literature as Cohen (1988) indicated three thresholds of classification. The $f^2$ iterated the relevance of $R^2$ in a dynamic way to capture the variance explained by exogenous variable relative to proportion that remains unexplained or outside the model. The classification includes (0.02<) small effect, (0.15<) for medium effect, and, lastly (0.35<) for large effect of the model explanatory power relative to variance of unexplained endogenous variable. In this study, the average $f^2$, as indicated in Table 4.9, is 0.47 and implies a very large effect of budgetary allocation to SAPS and efficiency and effectiveness of the three identified crime prevention strategies, which are first order conditions for crime prevention as identified in the literature.

**Table 4.8: Structural estimates**

| Path | PLS Result | | | OLS Regression Result | | Power |
|---|---|---|---|---|---|---|
| | Coefficient | T-Stat (Prob). | Partial Correlation | Coefficient | T-Stat. | |
| Budgetary Allocation → Personal Training on Population (CPS1) | 0.628 | 0.000 | 0.406*** | 0.560 | 4.631 | 0.000 |
| Budgetary Allocation → Modern Technology Deployment (CPS2) | 0.699 | 0.000 | 0.477*** | 0.671 | 6.205 | 0.000 |
| Budgetary Allocation → Police Regular Recruitment Exercise (CPS3) | 0.383 | 0.000 | 0.109*** | 0.345 | 2.517 | 0.000 |

*, **, *** indicated 10%, 5% and 1% level of significant respectively.   Source: Fieldwork, 2021

**Table 4.9: R$^2$, communality, and** redundancy

| Construct | R$^2$ | Communality (AVE) | Redundancy | D. G rho | Q$^2$ | f$^2$ |
|---|---|---|---|---|---|---|
| Budgetary Allocation | | 0.589 | | **0.850** | | |
| Budgetary Allocation → Personal Training on Population (CPS1) | 0.313 | 0.434 | 0.136 | **0.787** | **0.021** | 0.456 |
| Budgetary Allocation → Modern Technology Deployment (CPS2) | 0.119 | 0.265 | 0.032 | | -- | 0.819 |
| Budgetary Allocation → Police Regular Recruitment Exercise (CPS3) | 0.450 | 0.486 | 0.219 | 0.818 | 0.241 | 0.135 |
| **Average** | **0.294** | **\*0.445** | **0.129** | | **0.237** | **0.470** |

*The average of communality is computed as a weighted average of all of the communalities using weights as the number of manifest variables in each construct with at least two manifest indicators.*
Source: Fieldwork (2021)

### 4.4.2 Hypothesis two

**H0: Budgetary allocation does not significantly affect crime prevention strategy in terms of personnel training and acquisition of modern technology.**

This hypothesis was formulated as null hypothesis to test if budgetary allocation does not significantly affect crime prevention strategy in the area of modern technology deployment and training on how to use the equipment. The path coefficient result indicated positive and a statistically significant impact of budgetary allocation on crime prevention strategy two ($\beta$ =0.699).

Thus, crime prevention strategy explains deployment and training of SAPS personnel in the use of modern technology to prevent crime in the Western Cape. The result implies that increases in budgetary allocation, indeed, increases the efficiency and effectiveness of crime prevention strategy regarding deployment and training in modern technology.

The explanatory power of budgetary allocation was assessed with guidelines provided in the literature by Chin et al., (2008) that classified impact as assessed by R$^2$ to weak (<0.19), moderate (<0.33) and, lastly, substantial (< 0.67). This endogenous variable (CPS1) R$^2$ (0.119) indicated that 11% variance in modern technology deployment and training is explained by budgetary allocation to SAPS. However, budgetary allocation to SAPS has weak impact on modern technology deployment and training in preventing crime.

### 4.4.3 Hypothesis three

**$H_0$: Budgetary allocation does not significantly affect crime prevention strategy on how to handle increased population.**

The structural equation model path coefficient was designed to test three distinct, but connected hypotheses as indicated in the structural equation model (Figure 4.5). This hypothesis was formulated as null hypothesis to test if budgetary allocation does not significantly affect crime prevention strategy in the area of personal training and increased population. The path coefficient result indicated positive and statistically significant impact of budgetary allocation on crime prevention strategy one ($\beta$ =0.628).

This crime prevention strategy explains adequacy and frequency of SAPS personnel training on how to address consistent increase in population of policing area in order to combat crime. The result implies that an increase in budgetary allocation, indeed, increases the efficiency and effectiveness of crime prevention strategy regarding persistent training on strategy to deal with population explosion in policing area. The explanatory power of budgetary allocation was assessed with guidelines provided in the literature by Chin and colleagues (2008) that classified impact as assessed by $R^2$ to weak (<0.19), moderate (<0.33) and, lastly, substantial (< 0.67). This endogenous variable (CPS1) $R^2$ (0.313) indicated that 31% variance in personnel training on increase in population of policing areas is explained by budgetary allocation to SAPS. However, budgetary allocation to SAPS has moderate impact on personnel training on how to combat crime related to population explosion.

### 4.5 Interview responses

In this section, the study targeted two respondents, but only one was available and responded to all the questions linked to the budget. The unavailability of the second respondent did not have a negative impact on the study as all data needed were collected from the available respondent. Both senior managers deal with budget matters in their respective responsibilities and both sit in a budget committee. Biographic information of the respondent is shown in Table 4.10.

**Table 4.10: Interview respondents' biographical information**

| Biographical information of interview respondents | | | | |
|---|---|---|---|---|
| **Gender** | **Job Title** | **Employment duration** | **Highest education level** | **Working environment** |
| Female(s) | Deputy Director | 21-40 years | Post matriculation | Western Cape SAPS Provincial finance: Budget section |

Source: Fieldwork (2021)

### 4.5.1 Theme: Budget

### 4.5.1.1 Question: What is the trend of SAPS budgetary allocation over the past decade in view of the increasing population in Cape Town?

The response in Table 4.11 indicates a consistent increase of the budget from 2013/2014 to 2019/2020 financial year, except in 2020/2021 financial year, which registered a decrease of 3.39%.

**Response:** Table 4.11 responds to this question.

**Table 4.11: SAPS budgetary allocation trend over the past decade**

### SAPS BUDGETARY ALLOCATION TRENDS FOR PAST DECADE (2011-2021)

■ Budget allocation trends (compare with previous year) Percentage %

| | 2020-2021 | 2019-2020 | 2018-2019 | 2017-2018 | 2016-2017 | 2015-2016 | 2014-2015 | 2013-2014 | 2012-2013 | 2011-2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| ■ Budget allocation trends (compare with previous year) Percentage % | -3.39 | 3.46 | 6.4 | 7.9 | -1.44 | 2.43 | 1.22 | 3.18 | 0.16 | 1.24 |
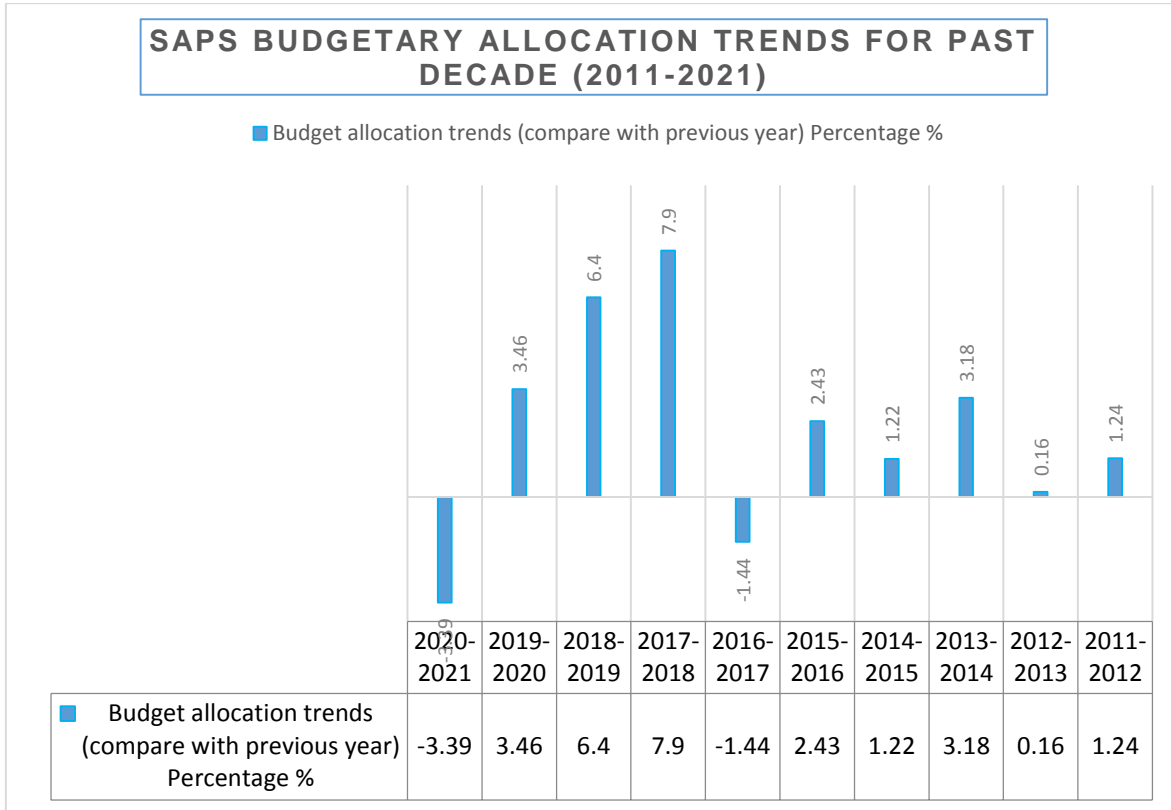
Source: Fieldwork (2021)

**4.5.1.2 Question: How much budget in the past five years was allocated for employees' compensation?**

**Response:** Table 4.12 below give detailed response to the question.

**Table 4.12: Budget allocated for employees' compensation**

| Budget in the past 5 years being allocated for employee's compensation | | |
|---|---|---|
| 2019/20 | R6,960,305,832 | (included: overtime expenditure: R57,359,522 |
| 2018/19 | R6,429,985,709 | (included: overtime expenditure: R28,784,644) |
| 2017/18 | R6,039,656,438 | (included: overtime expenditure: R31,179,343) |
| 2016/17 | R5,566,858,466 | (included: overtime expenditure: R52,747,085) |
| 2015/16 | R5,196,156,334 | |
| | | |

Fieldwork (2021)

**4.5.1.3 Question: How has the budget trend affected SAPS recruitment of police personnel in view of cost containment of South African government?**

**Response:** National Head Office funds Recruitment of police personnel.

**4.5.2 Theme: Resources**

**4.5.2.1 Question: How is allocation for personnel training and acquisition of modern technology performed**?

**Response:** Head Office Human Resources Development (HRD) allocates funds for training. In addition to the allocation, the province allocates funds for training interventions not funded by Head Office, as shown in Table 4.13 below.

**Table 4.13: Funds for training intervention not allocated by head office**

| Funds for training intervention not allocated by Head Office | |
|---|---|
| 2019/20 | R1, 200,000 |
| 2018/19 | R1, 000,000 |
| 2017/18 | R2, 200,000 |
| 2016/17 | R4, 200,000 |
| 2015/16 | R4, 000,000 |

Source: Fieldwork (2021)

Modern technology equipment such as drones and body cameras are procured by Technological Management Services (TMS) based at the National Head Office. Baseline budget cuts CCTV cameras purchase over two or three financial years as R302, 632, 67.00 was allocated for the purchase of CCTV cameras in the 2019/2020 financial year.

**4.5.2.2 Question: How well are resources available to the SAPS aligned to population in view of the United Nations standard for policing?**

**Response**: The SAPS Western Cape operational budget strives to ensure that the identified top 30 crime-contributing stations, that is, 17-priority crimes, are well resourced in order to ensure community safety, security and strengthen the community-centred approach to policing, whilst facing budget cuts. Increasing population and certain categories of increasing crime, which require more resources, place pressure on a constrained allocated budget.

**4.5.3 Theme: Recruitment**

**4.5.3.1 Question: How has budgetary allocation affected SAPS recruitment of new   police officers?**

**Response:** National Head Office funds recruitment of new police officers. The province gets its allocation of new recruits from Head Office, which sometimes depends on capacity of the police training college to accommodate trainees. As a result, it is difficult to tell how the budget constraints affect the recruitment of new trainees.

**4.6     Discussion of findings**

The empirical analysis from PLSSEM structural path coefficients indicated that all three hypotheses were supported at 1% statistical significance level. The significant impact of

exogenous variable, in this context budgetary allocation to SAPS on three identified crime prevention strategies, which include personnel training regarding population increase, modern technology deployment and training and lastly regular recruitments of SAPS personnel. The findings highlight that explanatory power of budgetary allocation as exogenous variable explains 45% variation on regular recruitment exercise of SAPS personnel, 31% variation on personnel training on how to handle training on population increase. The lowest explanatory power was observed in deployment and training on modern technology, with only 11% variation explained.

The findings signal that modern technology deployment and training gained the least attention of SAPS budget planners in the Western Cape, which reduces efficiency and effectiveness of crime prevention strategy designed for the province.

The findings corroborate the literature, as explained by Cruywagen (2019), that reduction in police budgets has led to high crime rates and poor, or lack of, attendance to community crime-related complaints and shortage of ammunition for SAPS members to participate in annual firearm proficiency assessments. In addition, the findings of this study align with resources inadequacy and population growth explosion in urban areas as indicated in the case of the Western Cape. More so, Simelane et al. (2017:32) supported the argument that scarce resources resulting from budget constraints made SAPS personnel unable to perform their functions to full capacity, as they must use available resources to cope with their day-to-day operations. They also iterated the internal tools of SAPS on The Human Resource Requirement System (THRR) used to determine factors that hinder the effectiveness and efficiency of service delivery. The internal tools for police management identified population size, its nature and its movement, relative to size of the police station and the events hosting places like convention centers, stadiums and universities which can become crime prevalence areas.

# CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

## 5.1     Introduction

The previous chapter presented the analysis and discussion of data. This chapter presents the conclusions based on the findings of the study and provides some recommendations. Budgeting is critical for proper planning and functioning of any institution, including government departments.

## 5.2     Revisiting the research questions

The research objectives and research questions were revisited to ensure they are adequately addressed. The research questions for the study were:

- What is the trend of SAPS budgetary allocation over the past decade in view of the increasing population in Cape Town?
- How has the budget trend affected SAPS recruitment of police personnel in view of cost containment by South African national government? How has the budget allocation trend affected SAPS police recruitment exercise?
- How has the budgetary allocation affected crime prevention strategy in SAPS in terms of police personnel training and acquisition of modern technology to combat crime?
- How has the budgetary allocation affected the SAPS crime prevention strategy in view of increasing population in Cape Town, Western Cape?
- How well are the resources available to the SAPS aligned to the United Nations recommended guidelines?

## 5.3     Conclusion

The aim of this study was to explore the effects of SAPS budgetary allocation on SAPS crime prevention strategies. Correct use of the allocated budget is very important because the department needs to evaluate its use and the impact thereof. A questionnaire was used to collect quantitative data and analyed with SPSS and XLSTAT, while qualitative data were collected through semi-structured interviews.

The findings suggested that budgetary allocation to SAPS has been relatively constant, especially if the annual inflation rates for the last decade are considered. However, there was a significant

increase in the budget allocation (29%) to SAPS Western Cape in the 2009/2010 fiscal year, suspected to be for preparation towards hosting of the FIFA World Cup in South Africa. This increase in budgetary allocation was accompanied by moderate success in crime reduction rates. According to SAPS Crime Situation Report 2009/2010 showed huge decline in serious crimes like murder declined by 4,9%, attempted murder by 5,1% and robbery with aggravating circumstances by 3,1%. The SAPS employed more than 7000 personnel nationally and more than 150 000 new vehicles were acquired to increase police efficiency and ensure effective service delivery. Data from the questionnaire corroborate figures from the budgetary data to the effect that budgetary allocation did account for 45% variation in regular recruitment exercises of personnel in SAPS. Thirty-one (31%) variation in personnel training regarding increase in population is explained by budgetary allocation capability. Further, only 11% variation in deployment and training in modern technology is explained by the annual budgetary allocation to SAPS.

In conclusion, deployment and training in modern technology is explained by budgetary allocation, which explains why crime prevention strategies without commensurate budget allocation to execute SAPS strategic plan will not give desired results. High crime in Western Cape makes it necessary to deploy all necessary resources and trained personnel as high crime negatively economic wellness of the province.. This study identified the need to increase budgetary allocation to SAPS annually to address of crime prevention strategies effectively implemented to address crime in the province.

## 5.4    Recommendations

This study found budgetary allocation as a pivot to which any workable crime prevention strategy has to be anchored. The following recommendations are made based on the findings and conclusion of the study:

1. A regular review of police budgetary allocation should reflect annual increases in inflation rates. A mismatch between budget allocation and the rate of inflation translates to a reduction in SAPS budget. The literature corroborates the findings that reductions in police budget have led to a high crime rate, poor, or lack of, attendance to community crime-related complaints and shortage of ammunition for SAPS members to participate in annual firearm proficiency assessments (Cruywagen, 2019).
2. Annual budget increase should be commensurate with increase of population with specific focus on the urban population explosion.
3. Annual allocation should increase in line with the need for capital expenditure such as procurement of modern technology equipment and deployment of it to combat crime prevalence in the Western Cape.

4. There should always be effective human resource planning for timely replacement of retiring personnel and those who resign or retire from the SAPS.

5. SAPS should employ the use of both pecuniary and non-pecuniary incentives to motivate personnel and sustain their morale.

In short, three points need to be emphasised. First, an increase in budgetary allocation to meet the United Nations' prescribed ratio of police to population and an adequate number of police personnel to deal with population explosion, particularly in urban areas, is of utmost importance. Secondly, an increased allocation to allow regular recruitment of personnel and their training as SAPS loses personnel annually. Thirdly, budgetary allocation should increase to facilitate effective and efficient deployment and training of SAPS personnel in the use of modern technology in the Western Cape.

## 5.5    Limitations of the study

The study did not consider the nature and content of crime prevention training provided to officers. It focused on Cape Town Central SAPS, Western Cape, and some information or functions of the SAPS such as recruitment and centralised training from the national head office, on which the provinces rely.

## 5.6    Suggestions for further study

There is a need for further studies to establish the nature of crime prevention courses the SAPS Human Resource Development offers to members. In addition, further study should consider income inequality among SAPS personnel and crime prevention strategy. Besides, performance-based funding of SAPS should be investigated and its effects on crime reduction plan documented.

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## APPENDICES

## APPENDIX A: STATISTICAL DATA

| Variable | Obs | Minimum | Maximum | Mean | Std. d |
|---|---|---|---|---|---|
| The station provides all the resources that are necessary to do I my work effectively | 49 | 1.000 | 5.000 | 2.367 | 1.224 |
| The training on all resources that you use on your daily activities has been provided | 49 | 1.000 | 5.000 | 2.959 | 1.309 |
| The resources that were needed in performance of my duties was procured within 60 days | 49 | 1.000 | 5.000 | 2.796 | 1.195 |
| I worked a paid overtime in the last 6 months to improve the performance of the organization | 49 | 1.000 | 5.000 | 2.122 | 1.272 |
| I undergo regular firearm training to use my firearm effectively | 49 | 1.000 | 5.000 | 3.224 | 1.313 |
| I received in service training on crime prevention | 49 | 1.000 | 5.000 | 3.245 | 1.254 |
| I know the current SAPS crime prevention strategy | 49 | 1.000 | 5.000 | 3.265 | 1.139 |
| Did budget constraints negatively affect implementation of crime prevention strategy | 49 | 1.000 | 5.000 | 3.429 | 0.948 |
| The increase of population in my policing area negatively affected my crime prevention efforts. | 49 | 1.000 | 5.000 | 3.551 | 1.196 |
| The new members have been recruited in my environment in the past five years. | 49 | 1.000 | 5.000 | 3.531 | 1.145 |
| The budget shortage affected the recruitment of new members | 49 | 1.000 | 5.000 | 3.122 | 1.136 |
| I have a person coach and guide me in doing my duties which helps me to improve my performance | 49 | 1.000 | 5.000 | 2.837 | 1.251 |
| My workplace allows me to be innovative in performance of my duties. | 49 | 1.000 | 5.000 | 2.755 | 1.270 |
| I have all the resources that are necessary to do my work effectively | 49 | 1.000 | 5.000 | 2.653 | 1.205 |
| The modern technology plays a role in prevention of crime | 49 | 1.000 | 5.000 | 3.388 | 1.367 |
| I do have modern equipment that is needed to carry out my duties | 49 | 1.000 | 5.000 | 2.367 | 1.207 |
| I do have training in modern technology that is used to prevent crime | 49 | 1.000 | 5.000 | 2.286 | 1.195 |
| The budget cut has negatively affected acquisition of technology needed to prevention crime duties. | 49 | 1.000 | 5.000 | 3.347 | 1.188 |

Composite reliability (Mono-factorial manifest variables):

| Latent variable | Dimension | Cronbach's alpha | D.G. rho (PCA) | Condition number | Critical value | Eigenvalues |
|---|---|---|---|---|---|---|
| **Budgetary Allocation (BA)** | 4 | 0.762 | 0.850 | 2.567 | 1.000 | 2.359 |
| | | | | | | 0.777 |
| | | | | | | 0.506 |
| | | | | | | 0.358 |
| **Personnel Training on Population (CPS1)** | 5 | 0.683 | 0.798 | 2.106 | 1.000 | 2.228 |
| | | | | | | 0.994 |
| | | | | | | 0.646 |
| | | | | | | 0.631 |
| | | | | | | 0.502 |
| **Police Regular Recruitment Exercise (CPS 3)** | 4 | 0.660 | 0.798 | 2.074 | 1.000 | 2.002 |
| | | | | | | 0.815 |
| | | | | | | 0.718 |
| | | | | | | 0.465 |
| **Modern Technology Deployment and Training (CPS2)** | 5 | 0.730 | 0.823 | 3.568 | 1.000 | 2.452 |
| | | | | | | 1.056 |
| | | | | | | 0.697 |
| | | | | | | 0.602 |
| | | | | | | 0.193 |

Partial correlations (Latent variable):

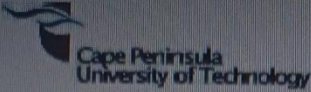| | Budgetary Allocation (BA) | Personnel Training on Population (CPS1) | Police Regular Recruitment Exercise (CPS 3) | Modern Technology Deployment and Training (CPS2) |
|---|---|---|---|---|
| Budgetary Allocation (BA) | **1.000** | | | |
| Personnel Training on Population (CPS1) | 0.406 | **1.000** | | |
| Police Regular Recruitment Exercise (CPS 3) | 0.109 | -0.209 | **1.000** | |
| Modern Technology Deployment and Training (CPS2) | 0.477 | 0.183 | 0.392 | **1.000** |

Direct effects (Latent variable) (1):

| | Budgetary Allocation (BA) | Personnel Training on Population (CPS1) | Police Regular Recruitment Exercise (CPS 3) | Modern Technology Deployment and Training (CPS2) |
|---|---|---|---|---|
| Budgetary Allocation (BA) | | | | |
| Personnel Training on Population (CPS1) | 0.560 | | | |
| Police Regular Recruitment Exercise (CPS 3) | 0.345 | 0.000 | | |
| Modern Technology Deployment and Training (CPS2) | 0.671 | 0.000 | 0.000 | |

Total effects (Bootstrap) (1):

| from | to | Effects | Effects (Bootstrap) | Standard error (Bootstrap) | Lower bound (95%) | Upper bound (95%) |
|---|---|---|---|---|---|---|
| Budgetary Allocation (BA) | Personnel Training on Population (CPS1) | 0.560 | 0.561 | 0.022 | 0.517 | 0.602 |
| Budgetary Allocation (BA) | Police Regular Recruitment Exercise (CPS 3) | 0.345 | 0.348 | 0.036 | 0.290 | 0.402 |
| Budgetary Allocation (BA) | Modern Technology Deployment and Training (CPS2) | 0.671 | 0.671 | 0.015 | 0.640 | 0.699 |

## APPENDIX B: ETHICAL CLEARANCE CERTIFICATE

**Cape Peninsula University of Technology**

P.O. Box 1906 • Bellville 7535 South Africa •Tel: +27 21 4603291 • Email: fbmsethics@cput.ac.za
Symphony Road Bellville 7535

| Office of the Chairperson Research Ethics Committee | FACULTY: BUSINESS AND MANAGEMENT SCIENCES |
|---|---|

The Faculty's Research Ethics Committee (FREC) on 9 June 2020, ethics Approval was granted to Mxolisi Mdodi (208229469) for a research activity for M Tech: Business Administration at Cape Peninsula University of Technology.

| Title of dissertation/thesis/project: | The impact of budgetary allocation on South African Police Service crime prevention strategy in Western Cape, South Africa<br><br>Lead Supervisor (s): Prof L Obokoh |
|---|---|

Comments:

Decision: Approved

| | 6 August 2020 |
|---|---|
| Signed: Chairperson: Research Ethics Committee | Date |

Clearance Certificate No   2020FOBREC777

## APPENDIX C: PERMISSION LETTER



South African Police Service

| Private Bag X94 | Pretoria 0001 | Police fax<br>Fax No. | (012) 393 2126 |

Your reference/U verwysing:

My reference/My verwysing: 3/34/2

THE HEAD: RESEARCH
SOUTH AFRICAN POLICE SERVICE
PRETORIA
0001

Enquiries/Navrae: Lt Col Joubert
AC Thenga
Tel: (012) 393 3156
Email: JoubertDi@saps.gov.za

Mr M Mdodi
**CAPE PENINSULA UNIVERSITY OF TECHNOLOGY**

**RE: PERMISSION TO CONDUCT RESEARCH IN SAPS: THE IMPACT OF BUDGETARY ALLOCATION ON SOUTH AFRICAN POLICE SERVICE CRIME PREVENTION STRATEG[]  IN WESTERN CAPE, SOUTH AFRICA: CAPE PENINSULA UNIVERSITY OF TECHNOLOGY: MASTERS DEGREE: RESEARCHER: M MDODI**

The above subject matter refers.

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

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

The Provincial Commissioner: Western Cape

- Contact Person: AC Gomo
- Contact Details: (021) 417 7520
- E Mail Address : wc.od.research@saps.gov.za

Kindly adhere to paragraph 6 of our attached letter signed on the 2020-01-29 with the sa[] above reference number

**MAJOR GENERAL**
THE HEAD: RESEARCH
DR PR VUMA

DATE:     2020-07-20

## APPENDIX D: LETTER CONFIRMING LANGUAGE EDITING

Faculty of Business and Management Sciences

Cape Peninsula University of Technology (District Six Campus)

Commerce Building (Fourth Floor, Room 4.2)

Cape Town

8000

December 8 2021

TO WHOM IT MAY CONCERN

**Language and technical editing: Mxolisi Wilford Mdodi's master's dissertation**

This is to conform that I, Professor Maurice Oscar Dassah, have edited the master's dissertation of Mxolisi Wilford entitled 'The effect of budgetary allocation on South African Police Service crime prevention strategy in Western Cape, South Africa'.

I hold an Honours degree in English (University of Ghana, Legon-Accra) and Master of Linguistics (University of Stellenbosch) with wide experience in teaching English Language and Communication as well as academic writing at two South Africa universities from 1992 to 2011, including holding the position of Language Coordinator in the Faculty of Informatics and Design at Cape Peninsula University of Technology (CPUT) for six and a half years.

Over the past twelve years, I have been supervising postgraduate students and examining dissertations/theses for various universities and reviewing articles submitted to journals for publication and conferences on the basis of my being a language and writing specialist.

My mandate being to edit the dissertation, I have read it thoroughly and recommended language and technical changes that will greatly improve its quality. In this regard, to the best of my ability, I have pointed out certain aspects for the student to rectify that would make the dissertation scholarly and conform with the basic conventions of academic writing in terms of language, in general, and technical requirements, such as citations and referencing in line with the customised CPUT Harvard method, the official stylesheet. However, I have not, in any way, changed the content or substance of the dissertation.

Should there be a need to verify the authenticity of this letter, please contact me directly.

Prof Maurice Oscar Dassah

Email: dassahm@cput.ac.za

Tel: 021 460 3304

Cell: 079 895 7466

**APPENDIX E: QUESTIONNAIRE**

Cape
Peninsula
University
of Technology

**Faculty of Business and Management Sciences**
**Ethics Informed Consent Form**

| CONSENT TO PARTICIPATE IN A RESEARCH STUDY |
|---|

**Category of Participants (tick as appropriate):**

| Staff/Workers | X | Teachers | | Parents | | Lecturers | | Students | |
|---|---|---|---|---|---|---|---|---|---|
| Other (specify) | | | | | | | | | |

You are kindly invited to participate in a research study being conducted by Mxolisi Mdodi from the Cape Peninsula University of Technology.  The findings of this study will contribute towards (tick as appropriate):

| An undergraduate project | | A conference paper | |
|---|---|---|---|
| An Honours project | | A published journal article | |
| A  Masters/doctoral thesis | X | A published report | |

**Selection criteria**
You were selected as a possible participant in this study because you are:

   (a) SAPS members working at Cape Town Central SAPS
   (b) SAPS senior manager working Provincial Head Office
   (c)
The information below gives details about the study to help you decide whether you would want to participate.

**Title of the research:**

**The impact of budgetary allocation on South African Police Service crime prevention strategy in Western Cape, South Africa**
_____

**A brief explanation of what the research involves:**

The research involves police budget and crime prevention strategy in Western Cape. It will use research questionnaire and interview questions to collect data. The purpose of this research to investigate the impact of budgetary constraints on crime prevention strategy.

**Procedures**

If you volunteer to participate in this study the following will be done:
1. Describe the main research procedures to you in advance, so that you are informed about what to expect;
2. Treat all interviewees with respect by arriving on time for all the interview schedules and well prepared;
3. Conduct an introduction with the interviewee in order to break ice;
4. All the interviewees will be asked for permission to record the interviews and also take some note where applicable;
5. In a case where there is no clarity, the interviewees will be allowed to ask for confirmation or clarity of words/sentences/phrases to ensure accuracy of the data collected;
6. Participants will be told that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs;
7. Participants will be given the option of omitting questions they do not want to answer or feel uncomfortable with;
8. Participants will be told that questions do not pose any realistic risk of distress or discomfort, either physically or psychologically, to them;
9. At the end of each interview all the interviewees will be thanked for their time and information provided for this study;
10. Participants will be debriefed at the end of their participation (i.e. give them a brief explanation of the study).

You are invited to contact the researchers should you have any questions about the research before or during the study. You will be free to withdraw your participation at any time without having to give a reason.

Kindly complete the table below before participating in the research.

| Tick the appropriate column | | |
|---|---|---|
| **Statement** | Yes | No |
| **1. I understand the purpose of the research.** | | |
| **2. I understand what the research requires of me.** | | |
| **3. I volunteer to take part in the research.** | | |
| **4. I know that I can withdraw at any time.** | | |
| **5. I understand that there will not be any form of discrimination against me as a result of my participation or non-participation.** | | |
| **6. Comment:** | | |

Please sign the consent form. You will be given a copy of this form on request.

| | |
|---|---|
| | |
| Signature of participant | Date |

**Researchers**

| | Name: | Surname: | Contact details: |
|---|---|---|---|
| 1. | Mxolisi | Mdodi | 0842827742 |
| 2. | | | |
| 3. | | | |

| | |
|---|---|
| Contact person: Mxolisi Mdodi | |
| Contact number: 0842827742 | Email: mdodi@vodamail.co.za |

**INTERVIEW QUESTIONS**

**Research Questionnaire**

Dear respondent

**Invitation to participate in an academic research study**

My name is Mxolisi Mdodi I am doing Masters degree in Business Administration at Cape Peninsula University of Technology. I am doing a research on the "the effect of budgetary allocation on South African Police Service crime prevention strategy in Western Cape, South Africa". I kindly wish to invite you to take part in this research by filling out this questionnaire, which will take 10-15 minutes of your time. Please choose the correct box by marking (✖) next to it.

Please note that the information obtained from this questionnaire will be treated in strict confidentiality and for research purpose. Your participation in the study is voluntary and you can withdraw at any time.

Kind Regards

Mxolisi Mdodi

| Section A: Biographic Information | | | | | |
|---|---|---|---|---|---|
| 1 | Gender | | | | |
| | | Male | | Female | |

| 2 | Highest education level: | | | | |
|---|---|---|---|---|---|
| | Matric | | Post matric | | |

| 3 | How long you have been in the police service |
|---|---|
| | Years in service :<br>1-5<br>☐ |
| | 6-10<br>☐ |
| | 11-20<br>☐ |
| | 21-40<br>☐ |

## Section B:  Statements

Agree = A, Strongly Agree = Not sure = NS, Disagree D, Strongly Disagree =DS

| | | A | SA | NS | D | DS |
|---|---|---|---|---|---|---|
| 1 | **The allocation budget** | | | | | |
| 1. | The station provides all the resources that are necessary to do I my work effectively | | | | | |
| 2. | The training on all resources that  you use on your daily activities has been provided | | | | | |
| 3. | The resources that was needed in performance of my duties was procured within 60 days | | | | | |
| 4. | I worked a paid overtime in the last 6 months to improve the performance of the organisation | | | | | |

95

| 2 | The budgetary allocation affected the SAPS crime prevention strategy in view of increasing population in Cape Town | A | SA | NS | D | DS |
|---|---|---|---|---|---|---|
| 2.1 | I undergo regular firearm training to use my firearm effectively | | | | | |
| 2.2 | I received in service training on crime prevention | | | | | |
| 2.3 | I know the current SAPS crime prevention strategy | | | | | |
| 2.4 | Budget constraints negatively affect implementation of crime prevention strategy | | | | | |
| 2.5 | The increase of population in my policing area affected negatively my crime prevention efforts. | | | | | |

| 3 | The budgetary allocation effect on crime prevention strategy in SAPS in terms of police personnel training and acquisition of modern technology to combat crime. | A | SA | NS | D | DS |
|---|---|---|---|---|---|---|
| 3.1 | I have all the resources that are necessary to do my work effectively | | | | | |
| 3.2 | The modern technology play a role in prevention of crime | | | | | |
| 3.3 | I do have modern equipment that is needed to carry out my duties | | | | | |
| 3.4. | I do have training in modern technology that is used to prevent crime | | | | | |
| 3.5 | The budget cut has negatively affected acquisition of technology needed to prevention crime duties. | | | | | |
| 4 | The budgetary allocation effect on SAPS recruitment of new police officers | A | SA | NS | D | DS |
| | | | | | | |
| 4.1 | The new members has been recruited in my environment in the past five years. | | | | | |
| 4.2 | The budget shortage affected the recruitment of new members | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.3 | I have a  person coach and guide me in doing my duties which helps me to improve my performance | | | | | | |
| 4.4 | My workplace allows me to be innovative in performance of my duties. | | | | | | |
| | | | | | | | |

Thank you for participating in this questionnaire

**APPENDIX F: INTERVIEW QUESTIONS**


Cape Peninsula
University of Technology

**Semi-structure Interview questions**

Title: The impact of budgetary allocation on South African Police Service crime prevention strategy in Western Cape, South Africa

**Respondents**:

- Your participation in the interview and the response will be confidential and use only for this study.
- Your participation in this interview is voluntarily
- You have right to withdraw your participation in this interview any time.
- The researcher in this study currently studying Master degree and this interview will contribute in the completion of the dissertation.

| Section A: Respondent Biographic information | | |
|---|---|---|
| | **Yes** | **No** |
| Are you senior manager in the Western Cape SAPS | | |

| | | | |
|---|---|---|---|
| | Are you working in the Western Cape provincial finance or visible policing environment | | |
| | Are you in salary level 12-14 | | |
| | **Research Questions** | | |
| 1 | **What has been budget allocation in the past decade** | | |
| 1.1 | What is the trend of SAPS budgetary allocation over the past decade in of the increasing population in Cape Town | | |
| 1.2 | How much budget in the past 5 years being allocated for employee's compensation? | | |
| 2 | **How has the budget trend affected SAPS recruitment of police personnel in view of cost containment of South African government?** | | |
| | | | |
| 3 | **How has the budgetary allocation affected crime prevention strategy in SAPS in terms of police personnel training and acquisition of modern technology to combat crime?** | | |
| 3.1 | How much has been allocated for personnel training and acquisition of modern technology | | |
| 4 | **How has the budgetary allocation affected the SAPS crime prevention strategy in view of increasing population in Cape Town?** | | |
| 4.1 | Is there an alignment between the resources available to the SAPS and the population in view of the United Nations standard for policing | | |
| 5 | **How has the budgetary allocation affected the SAPS crime prevention strategy in view of increasing population in Cape Town?** | | |
| 5.1 | Is there an alignment between the resources available to the SAPS and the population in view of the United Nations standard for policing | | |
| 6 | **How does budgetary allocation has affected SAPS recruitment of new police officers** | | |
| | | | |

……………………………………………………………………………………………………….
………………………………………………………………………………………………

Thank you for participating in this interview