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Digital Transformation in the public sector: A case study of the South African police service

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A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Management in the field of Digital Business

Johannesburg, 2025

ABSTRACT

The growing spate of crime in South Africa presents significant challenges for police agencies, particularly in implementing effective crime control strategies. This study investigates the potential for digitalising operations within the South African Police Service (SAPS) to enhance its ability to combat crime more effectively. While there has been increasing global interest in digital transformation across law enforcement, limited research has specifically examined the barriers and opportunities associated with digitisation within the South African policing context.

Using a qualitative research approach, purposive sampling was employed to select eight key participants from the SAPS Technology Management Services Division. Structured interviews were conducted to investigate the current state of digital capabilities, operational challenges, and opportunities for improvement.

The findings indicate that although some headway is being made in the deployment of digital tools within the SAPS, limited infrastructure and lack of staff technological adeptness stifle the organisation's digitalisation efforts. Additionally, financial constraints emerge as a critical barrier to deploying advanced digital solutions, limiting the forces capacity to respond effectively to modern criminal activities.

The study concludes that while digitalisation is essential for improving operational efficiency, funding limitations hinder progress in this area. To address these challenges. Policymakers and stakeholders must prioritise investments in digital technologies and capacity- building initiatives. Collaboration with private sector partners could also provide innovative solutions and additional resources, enabling SAPS to bridge existing gaps and enhance public safety.

KEYWORDS

Digital Transformation

Technology Integration

Police Operations

Organisational Change

Crime Prevention

Public Safety

DECLARATION

I, Wandile Makepeace Nkosi, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the field of Digital Business at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Name: **Wandile Nkosi** Signature:*W.M Nkosi*

Signed at: Johannesburg

On the: 23…day of ……February: 2025

DEDICATION

This research project is dedicated to my beloved family and friends, whose unwavering support has been a constant source of strength throughout my academic journey.

A heartfelt thank you to my partner, Luyanda Mankayi, and my children, Simnikiwe, Lwandle, and Asante, for your endless encouragement and love. To my mother Cynthia, my sister Zinhle, and my brother Thulasizwe, your support has been immeasurable.

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LIST OF ACRONYMS

AI- Artificial Intelligence

KPI- Kep Performance Indicators

ICT- Information Communication Technology

NDP- National Development Plan

R&A- Research and development

SA- South Africa

SAPS- South African Police Service

SITA- State Information Technology Agency

SLA- Service Level Agreement

SMME- Small, Medium, and Micro Enterprises

TMS- Technology Management Services

CHAPTER 1. INTRODUCTION

1.1 Statement of purpose

This research explores the digitalisation of operations within the South African Police Service (SAPS). It seeks to understand how traditional manual processes and organisational inertia may act as barriers to the successful implementation of digital initiatives, ultimately affecting the delivery of effective community service in law enforcement.

1.2 Background of the study

South Africa faces one of the highest crime rates globally, with violent crimes such as murder, robbery, and gender-based violence and femicide increasing alarmingly over the past decade (StatsSA, 2023). The South African Police Service (SAPS) , mandated to uphold law and order, is under immense pressure to respond effectively to these rising threats.

However, despite global trends toward digital policing, SAPS remains largely reliant on manual processes. Evidence suggests that many stations still use paper-based case files, face-to-face briefings, and forensic methods focused on physical evidence (Albertus, 2019; Protection Web, 2024). This lack of digital integration not only slows down response times but also affects transparency, accountability, and public trust in law enforcement.

While digital transformation has been widely acknowledged as a key enabler of operational efficiency in various sectors, including healthcare, education, and finance, there remains limited academic focus on its application specifically within the SAPS context. Existing studies often examine digital policing at a conceptual level without addressing the practical realities faced by South African law enforcement agencies.

This research addresses this gap by exploring the current state of digitalisation within SAPS, identifying obstacles to implementation, and offering actionable insights for sustainable change.

1.3 Research problem

The south African Police Service continues to struggle with outdated systems and minimal digital integration, severely impacting its ability to respond efficiently to rising crime rates. According to recent reports, nearly 70% of SAPS stations do not have access to fully functional digital tools or reliable internet connectivity, particularly in rural areas (Protection Web, 2024).

This technological deficiency undermines both internal operations and external stakeholder engagement.

Despite growing recognition of the need for digital transformation, there is limited empirical research examining the specific barriers and opportunities within the SPS context. Therefore, this research seeks to investigate the feasibility of implementing digital technologies in APS and how they can be leveraged to improve policing outcomes.

1.4 Research objectives

The primary aim of this study is to investigate the feasibility and effectiveness of digitalising operations within the South African Police Service. Specifically, the study will:

1. To explore the current state of digitalisation within the South African Police Service
2. To identify the barrier and opportunities for digital transformation within SAPS, and how organisational inertia manifests in this process
3. To investigate the perceived potential role of digital technologies in improving the SAPS' response to crime

These objectives are designed to provide a comprehensive understanding of SAPS's digital maturity, while offering practical recommendations for advancing technological integration in law enforcement.

1.5 Rationale

Digital transformation has been widely acknowledge as a key enabler of operational efficiency and public service delivery in various sectors. In policing, studies by Albertus

(2019), Van Der Giessen and Bayerl (2022), and Fitzgerald et al. (2013) have highlighted the benefits of technology adoption in enhancing crime prevention, evidence management, and citizen engagement. However, there remains a dearth of empirical research examining how these insights apply specifically to the South African Police Service.

This study contributes to the body of knowledge by providing an in-depth exploration of digitalisation efforts within SAPS, drawing from primary data collected through interviews with senior officers involved in technology management. By identifying the institutional, financial, and technical challenges that SAPS faces, this research aims to inform policy development, support strategic planning, and guide future investments in digital policing infrastructure.

1.6 Delimitations of the study

- This study solely focused on the impact of digitisation efforts in the South African Police Service (SAPS), thus limiting the scope to the geography and context of South Africa and SAPS operations.
- The study's core focus is the adoption and deployment of digital technologies within the SAPS, thus excluding elaborate analyses of other non-digital strategies and factors that may affect community engagement, service delivery, and crime-fighting.
- This study is limited to the perspective of the South African Police Service (SAPS), thereby excluding the viewpoints of external stakeholders such as community members, advocacy groups, and other law enforcement agencies. As a result, insights into the effectiveness and challenges of digitisation from these external perspectives were not considered.

1.7 Definition of terms

Crime prevention: The activities, efforts, and strategies deployed by the police and the state within communities to help avoid and reduce crime rates and enhance public safety (UNODC, 2025).

Digitisation: Switching from analogue to digital form, thus enabling the deployment of digital technologies and solutions within the South African Police Service (SAPS) to enhance operations (Pellicelli, 2023).

Digital Technologies: Denotes devices such as personal computers and tablets, tools such as cameras, systems such as software, 4IR technology such as augmented and virtual reality, and intangible technology such as the internet used to enhance operational efficiency, data management, communication, and decision-making processes of the SAPS (Johnstone et al., 2024).

Service delivery: Providing basic services to the community and allocating SAPS policing services and resources to address community needs, ensure public safety, and attend effectively to incidences and emergencies (McArthur, 2023).

1.8 Assumptions

The following assumptions inform the study:

- The SAPS and relevant stakeholders were willing to cooperate and make the necessary information available for the research, thus enabling a comprehensive understanding of the digitisation efforts and their impact on community engagement, service delivery, and crime prevention.
- The SAPS has deployed the necessary technological infrastructure to support digital initiatives and implement feasible digital technologies within the organisation.
- It could be assumed that the SAPS has promulgated policies, plans, and procedures aligned with integrating digital technologies, facilitating a seamless transition, and effectively using these tools to enhance policing operations.
- It could be assumed that SAPS personnel have undergone satisfactory training and capacity-building initiatives to enhance their digital technology dexterity in contributing to the intended deliverables and improving the community experience.
- SAPS has allocated adequate financial and human resources to the digitisation initiatives, ensuring the organisation's sustainable implementation and maintenance of digital solutions.

1.9 Chapter Outline

Chapter 1 begins with an introduction, outlining the study's purpose, the background, and the research problem. The objectives of the research are defined, along with a rationale for why this study is necessary. It also details the delimitations of the study, provides definitions for key terms, and resents the assumption underlying the research. The chapter concludes with a brief outline of the entire structure of the study.

In **Chapter 2**, the literature review and theoretical framework are explored. It starts with an introduction that sets the stage for the background discussion, followed by a comprehensive review of relevant literature on the topic. The chapter then outlines the theoretical framework guiding the study, culminating in a conclusion that summarises the key points from the literature review.

Chapter 3 Discusses the research methodology, it begins by presenting the research approach, followed by a description of the data collection methods used. The chapter further defines the population and sample involved in the study, explains the data analysis techniques employed, and addresses the ethical considerations integral to the research process.

In Chapter 4, the presentation of results begins with an overview of the data collected. This is followed by an analysis of the findings, highlighting key themes and patterns that emerged from the data.

Chapter 5 discusses the results in greater detail, starting with an introduction. The demographic profile of the participants is them presented, followed by a discussion of the findings in relations to the existing literature. This chapter concludes with a summary of the key insights gathered from the study.

Finally, **Chapter 6** presents the conclusions and recommendations based on the research. It opens with an introduction and proceeds to draw conclusions from the research findings. Recommendations for stakeholders are made, and the chapter concludes with suggestions for further research in the field.

CHAPTER 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

In this study, the terms "Digitisation," "Community Engagement," "Service Delivery," "Crime Combating," and "Digital Technologies" were be utilised to provide a comprehensive understanding of how the adoption of digital technologies within SAPS impacts the community engagement, service delivery, and crime combating strategies. These terms are selected based on their relevance to the research focus and their alignment with the objectives of investigating the effects of digitisation on policing practices in South Africa. By using these key concepts, the study aims to analyse the implications of digitisation on SAPS operations and its outcomes regarding community safety and public service delivery.

This chapter explores the existing knowledge on digital transformation within many industries and focus on the challenges and strategies related to the digitalisation of police services. The literature review aims to provide insights into how Traditional Manual Processes can impede digital progress and the approaches taken by organisations to overcome these obstacles. The continuous rise in violent crimes, the government's inability to effectively deal with corruption, and minimal funding for the South African Police Service (SAPS) have seen South Africa raking among the most dangerous countries to live in in the world.

Endogenous to the ineffective response to crime by police is the underfunding and shortage of well-trained police officials who are competent in managing the crime that has become endemic in the country. Seedat et. Al (2009) observes that although South Africa is not engaged in any warfare, South Africa is confronted by an unapparelled challenge of illnesses and deaths stemming from violent injuries. The Institute for Security Studies (2023) reports that the continuous rise in crime-related illnesses and deaths, with the escalation rate thereof sitting at 53%, stems from socio-economic stagnation and dysfunctional criminal justice institutions. Mortality resulting from human-inflicted injuries rose by 77% in the 2022/23 financial year.

The National Development Plan of South Africa 2030 which was adopted by the South African government in 2012, sites violence and crime as factors stifling South Africa's

economic growth and depriving most South Africans of the right to be free from violence (NDP, 2012). The NPD also emphasises technology as a panacea to mitigating current issues in the criminal justice system. According to the NDP (2012), technology must be leveraged for efficiency, to help prevent and investigate crime, to ensure that crime does not occur in the first instance, and to fast-track investigations through increased forensic capacity and better crime scene investigation.

2.2 Definition of topic or background discussion

The digitisation of policing services has been a growing trend globally, with law enforcement agencies in countries in AMERICAS and OCEANA continuing to integrate digital technologies to enhance operational efficiency, improve service delivery, and effectively combat crime (Mazerolle et al., 2018). Deloitte has published a document on "Digital Policing", highlighting the significant role of digital technologies in transforming modern policing practices. The digitalisation transformation yields many opportunities for police to leverage, such as predictive policing, digital public engagement, mobile workforce optimisation, and digital investigation to overcome frontline challenges and improve results in contemporary policing (Mazerolle et al., 2018).

Policing is normally associated with manual, Traditional, and outdated methods that limit police officers to desk duty, often stifling their access to real-time field intelligence and community presence. However, the emergence and proliferation of digital technologies have enhanced policing operations worldwide, provided police officers access to important information on the fly, optimised workforce deployment, and enhanced the decision-making processes (Zikalala et al., 2023). Through level management and transformation, police services can streamline processes, improve data management, and enhance inter-agency collaboration between police services and other public safety agencies.

Innovative digital solutions have been adopted by Middle Eastern region organisations, including police services, to enhance their operations and public engagement. The acceleration in the adoption of digital technologies in policing can also be attributed to the COVID-19 pandemic, which necessitated operational continuity even during state of emergency and lockdown situations (Mazerolle et al., 2018).Key factors that need to be considered in the digital transformation of the police service include stakeholder cooperation, technology infrastructure, policy alignment, community acceptability,

training, and resource allocation. These factors are crucial for successfully implementing digital drives as law enforcement organisations traverse the challenges of the digital transition (Zikalala et al.,2023).

Stakeholder cooperation includes embedding a wholly public system approach where the creation of a holistic digital public services system for public safety where the public will be able to advance their public safety issues through a consistent citizen journey without the limitations that come with agency silos (South African Government, 2024)). This approach aligns with the report of the International Association of Chiefs of Police (IACP, 2024)), which emphasises the importance of stakeholder cooperation in enhancing public safety outcomes through collaborative partnerships between law enforcement agencies, government entities, and community organisations.

Technology infrastructure and community acceptance speak to harnessing technology to make interactions with the public frictionless by deploying the relevant digital channels, using digital to enhance physical experiences, and using digital tools to enhance the end-to-end citizen journey, specifically the physical interactions such as witness statements and utilising shared data ethically and securely to enable citizens to share data in real-time, and deploying technological infrastructures that support the public to protect their communities through access to policing platforms (South African Government,2024) .

This perspective is supported by a report by RAND Corporation (2019), which discusses the role of technology infrastructure in modern policing, highlighting how digital tools can improve operational efficiency, enhance data sharing, and facilitate community engagement to create safer environments (Russo et al., 2019.)

Policy alignment includes law enforcement's adherence to government policy to serve and protect by averting and addressing harm by implementing digital tools that seek to disrupt criminal activity. Findings by Europol (2022) highlight the necessity of policy frameworks that support the integration of digital technologies in law enforcement to counter criminal activities effectively. These findings address the significance of policy alignment in leveraging digital technologies to combat crime effectively while upholding legal and ethical standards across jurisdictions.

Lastly, training and resource allocation mean to promote digital leadership and working methods to enable the police workforce to focus on value-creating activities. This includes imparting the workforce with the necessary skills and developing a digital literature

workforce and leadership by engendering a culture of continuous learning and empowering leaders and frontline staff with knowledge and support to encourage them to fully embrace digital technologies, intelligent insights, and connected ways of working.

The Police Executive Research Forum (PERF) report emphasises the importance of continuous professional development and resource allocation in enhancing the effectiveness of digital transformation initiatives in policing. Additionally, the report highlights the importance of investing in digital literacy training to equip police personnel with the necessary skills and tools to adapt to evolving technological domain and enhance operational effectiveness (Hall, 2024)

By addressing these factors and successfully utilising digital technologies, police services may promote community participation, expand their capabilities, and create safer and more secure settings for all parties involved. In discussing and debating key concepts and definitions relevant to digitisation in policing, several terms play a crucial role in influencing the understanding of the research area. Here are some key concepts and definitions, along with references pertinent to the study on the impact of digitisation on the South African Police Service (SAPS).

2.3 Digitalisation

Digitalisation can be defined as the diverse sociotechnical phenomena involved in adopting and using technologies within the broader individual, organisation and societal contexts (Frenzel et al., 2021). Alsufyani et al. (2022) also agree with the above definition but define digitalisation as going beyond technology adoption and as a fundamental change in organisational strategy, business processes, organisational knowledge, and the entire area of social-technical organisation systems.

SAP (2025) describes digitalisation as a phenomenon in which data of the whole organisation and its assets is processed and transformed through varied advanced technologies, culminating in core changes in business processes that can result in new business or organisational models and social change. There is an alignment between the above definitions regarding digitalisation's bearing on business operations and the cultivation of new models for social change. Digitalisation plays a significant role in bolstering operations, enabling organisations to service their customers better.

2.3.1 Traditional Manual Processes

Traditional Manual Processes are defined as conventional methods of data collection, report generation, and communication (Aris et al., 2023). In public institutions, maul processes refer to traditional administrative tasks, such as handling paper-based records, manually processing forms, and conducting in-person consultations. According to Zolute (2024), these are error-prone and limiting to scalability. Manual processes can also slow down operations, thus making it difficult to maintain accuracy (UN, 2021).

2.3.2 Digital transformation and digitalisation

The sphere of law enforcement agencies is always changing and characterised by constantly evolving criminal activities. To stave off these criminal activities and stay ahead of the curve, law enforcement agencies need to formulate comprehensive digital transformation strategies. Advanced technologies such as predictive analytics and real-time data sharing empower law enforcement agencies to respond proactively, increase public safety, and effectively combat crime (Walker, 2023).

Digital transformation is concerned with the fundamental shift in organisation paradigms because of the integration of disruptive technologies. It emphasises how imperative it is for businesses and governments to not only automate existing processes but to produce altogether new capabilities that enhance productivity, value creation, and societal well-being.

By embracing digital transformation, entities can transform customer experiences, streamline operational processes, and innovate business models to remain competitive in the digital age (Shibambu et al., 2020). Entities are presented with a plethora of challenges, such as low digital dexterity and limited infrastructure, and both challenges demonstrate the importance of organisational readiness and strategic planning to manage the difficulties of digital transformation successfully (Shibambu et al., 2020). Moreover, cultural change and talent development are necessary for digital transformation as they ensure the alignment of technology, people, processes, and culture to realise the full potential of digital transformation (Shibambu et al., 2020).

As Schildt (2020) explains, digitalisation replaces human routines with automated processes, leading to difficult changes in institutional structures. This aligns with broader scholarly perspectives that view digital transformation not to just as a catalyst for

institutional change but as a fundamental reorganisation of management, work, and societal frameworks (Brennen & Kreiss, 2016; Verhoef et al., 2021).

Technological advancements in computer science, the expansion of digital infrastructures, and evolving managerial paradigms collectively drive this transformation, gradually shifting reliance from human observations to data-driven insights, algorithmic decision-making, and automation (Schildt, 2020; Hinings et al., 2028). These changes demonstrate the systematic nature of digitalisation, highlighting its profound implications for organisational adaptation and strategic decision-making.

2.3.3 Digitalisation strategy

Digitalisation involves implementing digital technologies and capabilities to facilitate the transformation into a digital organisation. This shift is achieved by adapting business models, refining operational practices, and developing new services (McKinsey & Company,2024). Omol (2023) describes digitalisation as the process through which an organisation transitions into a digital business. They state that digitalisation involves using digital technologies to change business models and offer new opportunities for generating revenue and value. Digitalisation is happening rapidly, and this increased proliferation of digitalisation. All sectors in existence impact the world of work and all sectors globally (Omol, 2023).

2.3.4 Exploring Digitalisation Strategies

Andrew Kusiak, (2017) conducted a qualitative study on the impact of digitalisation strategies within the manufacturing industry. The exact number of firms and participants involved in the study cannot be determined, but it includes detailed analysis and real-world examples. The study provided valuable insights showing that integrating the Internet of Things (IoT) and Artificial intelligence (AI) led to significant improvements in productivity. The deployment of technologies yields more efficient use of machinery and resources, which translates into high output levels. Additionally, predictive maintenance enabled by IoT provides benefits. By monitoring equipment in real-time and predicting potential failures, firms can reduce unplanned downtime and extend machinery lifespan.

The use of AI facilitated better decision-making processes. AI algorithms aid in quickly analysing large volumes of data, resulting in more informed and timely decisions. Moreover, technology can lead to reduced costs as a significant by-product of digitalisation because labour costs were reduced due to automation. Lastly, firms can derive competitive advantage and agility in innovation and meeting customer demands with greater precision from digitalisation. Notwithstanding the significant gains, some firms highlighted challenges, such as the considerable investment required for digitalisation, employee training, and concerns about data security.

In another study, Agarwal et al., (2020) conducted a study analysing the role of digital technologies and analytics in value-based Marketing in the healthcare sector. The theoretical research focused on existing approaches in healthcare and marketing. The findings emanating from the study showed that implementing electronic health records (EHRs) and telemedicine significantly enhanced patient care and streamlined administrative processes. Healthcare professionals reported improvements in patient outcomes, better coordination of patient care, and increased efficiency in managing patient data. All these benefits emanated from deploying technology such as the EHR, which provided a centralised digital platform for storing and accessing patient data.

Bucăţa et al. (2022) conducted a study that was a collection of current literature. The insights from the study were that integrating digital tools such as Learning Management Systems (LMS) and online collaborative platforms was instrumental in improving teaching effectiveness and student engagement. LMS facilitated better organisation and dissemination of course material, streamlined communication between educators and students, and provided tools for tracking student progress. These systems enabled educators to deliver structured and interactive content, enhancing the learning experience. Online collaborative platforms facilitated participation and collaboration among students as they came embedded with tools such as discussion forums, group projects and real-time feedback, which promoted interaction and an engaging learning environment.

Garcia and Fernandez (20190 undertook a longitudinal study and examined the evolution of digitalisation strategies in the retail sector over 5 years. A sample of 100 retail companies in Latin America was involved and it utilised annual reports, market analysis, and interviews with key stakeholders. The results of the study showed that the adoption

of e-commerce platforms and digital marketing strategies culminated to increased market reach and customer satisfaction.

Digital Transformation- International Comparative Analysis

In a continuously evolving society where digitalisation and technological advancement are transforming policing, policymakers and law enforcement agencies must consider the impacts of privatisation and digitalisation on police functions. Globally, police operations are being transformed by the rapid convergence of technology, a shifting information and trust situation, social and demographic changes, mass urbanisation, and the emergence of smart cities. These trends fundamentally alter the dynamics between law enforcement agencies and their communities (INTERPOL Innovation Centre, 2022). Countries worldwide are making significant strides in government transformation, offering valuable lessons for South Africa.

2.3.5 *Europe*

In **Norway**, Gunghus et al. (2022) explored the transition from discretion to standardisation within police organisations because of digitalisation. This qualitative study, which employed interviews and document analysis, revealed that digital tools, such as automated reporting systems, standardise police work, reduce individual discretion, and enhance efficiency and accountability. However, the study also raised concerns regarding the potential erosion of professional judgement and flexibility, as officers may become overly reliant on standardised procedures.

Similarly, in **Kosovo**, Konjuni et al. (2022) examined the impact of digitalisation on citizen service delivery by the police. Their case study approach, which included interviews and service records analysis, indicated significant improvements in response times, transparency, and public trust attributed to digital systems that facilitate better incident tracking and streamlined administrative processes.

In **Serbia,** Tomasevic et al. (2020) employed a mixed methods approach to assess the influence of digital technology on policing. Through surveys and interviews with police officers, the study found that technologies such as mobile data terminals and digital communication systems significantly enhanced operational efficiency, data accuracy, and

inter-agency collaboration. Furthermore, these technologies provided immediate data access, improving decision-making processes during critical incidents.

Eckhard et al. (2019) conducted a study involving interviews with public service employees and union representatives across Europe. It revealed that while digitalisation improved service delivery and efficiency, it also raised concerns about job security, work conditions, and the necessity for continuous skills development. Employees acknowledge that digital tools enhanced service speed and accuracy but highlighted the pressures of adapting to new technologies.

The Department of Public Service and Administration (2024) references law 11/2007, enacted by the Spanish parliament, which established citizens' rights to interact online with public administration. This law serves as foundation for Spain's eGovernment initiative and includes several clauses that support the right to communicate digitally with public sector, such as:

- Guaranteed provision of digital services, ensuring that public administration organisations maintain up-to-date online transactions and services.
- The freedom to choose from several service channels when interacting with public authorities, mandating that public administrators offer digital communication and service processes upon citizens request.
- The right to equitable access to public online services, including for citizens who prefer non-electronic communication methods.
- Spain has established new legislation and royal decrees to further support ongoing digitisation across all government sectors, including policing.
- In Estonia, the government has implemented a decentralised, government-wide platform known as X-road, which facilitates secure inter-agency data sharing between private and public sectors. This platform ensures seamless and secure data exchange, enhancing the efficiency and effectiveness of public services, including law enforcement (Espinosa & Pino, 2024)

2.3.6 *Asia*

In Indonesia, Supriyanto et al. (2021) investigated the formulation of influential policies and infrastructure strengthening to usher in Police Era 4.0. Utilising policy analysis and

stakeholder interviews, the study assessed the implementation of advanced technologies such as AI and big data in policing. The findings indicated positive trends in crime prevention, resource management, and community engagement, with AI facilitating precise crime hotspot identification and big data analytics enhancing strategic planning and resource allocation.

2.3.7 *The UAE*

The integration of digital service innovations within the UAE police department, particularly in Ajman, has been the focus of a study by Qaid et al. (2023). This research used a quantitative approach, distributing surveys to police personnel to assess the impact of digital innovations on organisational performance. The findings revealed a significant correlation between enhanced organisational, improved service quality, increased customer satisfaction, and the deployment of digital innovations. Key factors identified as critical for successful digital service implementation included user-friendly interfaces, comprehensive training programs, and continuous technological updates.

Digital Policing in the UAE

A document titled "Digital Policing," produced by Deloitte, elaborates on the influential impact of digital technologies on modern policing practices. It emphasises the benefits of digitisation in enhancing operations efficiency, improving service delivery, and enabling law enforcement agencies to combat crime effectively. The shift towards digitisation offers police forces opportunities to leverage predictive policing, engage with the public digitally, optimise mobile workforce deployment, and enhance digital investigations. These advancements are crucial for addressing frontline challenges and improving overall outcomes in policing.

In a 2020 report, Morley further posits that the adoption of digital technologies facilitates real-time access to intelligence, optimises workforce deployment, and enhances police decision-making processes. By using digital tools, officers can concentrate on frontline tasks and expedite investigations through immediate access to information, thereby improving operational efficiency.

Community Engagement and Challenges

In terms of community engagement, Morley (2020) argues that the digital transformation of police services includes active citizen [participation in investigations, supported by

innovative solutions such as virtual police officers accessible via social media platforms. This approach promotes a collaborative relationship between law enforcement and the community.

However, the report also highlights challenges faced by police officers in achieving digital coherence and effectively integrating new technologies. These challenges may stem from organisational inertia, which can hinder the adoption of innovation practices. Despite these obstacles, the rapid pace of technological advancements presents significant opportunities for enhancing policing services and improving public safety.

In summary, the UAE's experience with digital policing illustrates the potential benefits of integrating technology into law enforcement, as well as challenges that must be addressed to ensure successful implementation and community engagement. The findings for Qaid et al. (2023) and insights from Morley (2020) highlight the importance of continuous training, user-friendly systems, and initiative-taking engagement strategies in realising the full potential of digital innovations in policing.

2.3.8 *Digital Policing in Africa: Challenges and Opportunities*

As study by Yisa and Adeyemi (2019) emphasises, developing countries, particularly in Africa, encounter unique challenges in digital policing. The increasing complications of crime, especially cybercrime, is a significant concern due to the borderless nature of the digital environment. They argue that integrating technology into policing practices is essential to mitigate these challenges. By adopting intelligence -led policing and leveraging digital tools, law enforcement can enhance evidence-gathering, streamline investigation processes, and improve information dissemination.

Country-Specific Insights

- **Nigeria:** The transition from traditional paper-based investigation methods to digital systems is highlighted as crucial step in modernising the Nigerian police force. This shift enables the application of knowledge-based and expert systems, which can enhance operational efficiency and effectiveness (Department of Public Service and Administration,2024),
- **Rwanda:** The Department of Public Service and Administration (2024), reports that Rwanda has made notable advancement in digital development, particularly in its capital, Kigali. The Rwanda Innovation Fund (RIF) supports digital

disruption and innovation, cultivating public-private partnerships to address regional challenges. Additionally, the Irembo e-Government portal provides citizens with access to around one hundred government services, streamlining service delivery and contributing to economic growth.

- **Mauritius:** Ranked as the top African country in the global e-Government Development Index, Mauritius has successfully crystallised its digital transformation strategy. The focus on digital government, ICT infrastructure, innovation cyber security, and talent management has positioned the country as a leader in e-government initiatives (Department of Public Service and Administration,2024)

- **South African Context**

In South Africa, Albertus (2019) outlines the pressing need for digital transformation within the South African Police Service (SAPS). The current state of the SAPS is characterised by dysfunctionality, exacerbated by ineffective governance and corruption. The paper advocates for implementing technology to enhance police effectiveness and efficiency, proposing the establishment of pilot police stations equipped with advanced information technology, such as GIS mapping software and body cam. These tools aim to improve communication, resource dispatch, and evidence collection.

However, the paper also identifies significant barriers to effective technology integration, including insufficient investment in IT resources and infrastructure and lack of alignment with contemporary technological advancements. To overcome these challenges, collaboration among several stakeholders, including academia and in-house staff, is essential to driving research and transformation efforts in ICT service delivery for the SAPS.

2.4 The barriers of digitalisation

2.4.1. The organisational Inertia barrier in Digitalisation

As companies strive to adapt to the mutation in the digital environment, they often encounter resistance to change from within their organisational structures. Organisational inertia refers to the established organisations' tendency to maintain the status quo and resist change, even when external pressures and opportunities for innovation are exerted on them (Moradi et al., 2021).

Westerman et al. (2014) emphasise how organisational inertia is exacerbated by structural and cultural factors, such as rigid hierarchies and departmental silos. In digitally transforming organisations, these barriers can prevent the seamless integration of modern technologies and hinder the development of a unified digital strategy.

This inertia is further exacerbated by factors such as skills goals, cultural resistance, and a lack of alignment between digital initiatives and business strategy, as highlighted by the World Economic Forum (2023).

In digital transformation, organisational inertia can manifest in several ways, stifling the adoption of new technologies, processes, and business models. For instance, employees and leaders may be reluctant to embrace digital tools and platforms due to a preference for traditional methods or fear of the unknown (McKinsey & Company, 2022).

This resistance can hinder an organisation's ability to leverage digital technologies effectively and remain competitive in the digital age (Moradi et al., 2021) furthermore, McKinsey & Company (2022) emphasise that digital transformations often fail due to these barriers, highlighting the need for strategic leadership and clear alignment of digital goals with overall business objectives.

In another study Ari Utomo et al., (2023) identify organisational learning, organisational capabilities, and organisational resources as some of the antecedents of inertia. Organisational learning refers to an organisation's ability to learn and attain new information. An organisation's current ability to learn can be a source of inertia. Learning capabilities speak to an organisation's ability to coordinate tasks while employing resources to meet set deliverables. When capabilities are absent, such absence is considered a source of inertia. Furthermore, McKinsey & Company (2022) emphasise that digital transformations often fail due to these barriers, highlighting the need for strategic leadership and clear of digital goals with overall business objectives. Therefore, past successes or embedded practices can often influence the reluctance to deviate from familiar strategies. This can lead to missed opportunities for innovation and growth in the digital space.

Barney (1991) describes organisational resources as those capabilities, assets, organisational processes, firm attributes, information, knowledge, and so on under the organisation's control that enable it to devise strategies that improve its efficiencies and

effectiveness. Existing resources such as supply chains, and industrial networks are also identified as sources of inertia (Ari Utomo et al.,2023).

Digital transformation occurs when an organisation intentionally embraces the industrial and societal changes that result from the proliferation of digital technologies. Digital transformation and its subset, digitalisation, involve leveraging new digital technologies such as artificial intelligence, mobile blockchain, cloud, and the Internet of Things to enhance customer experience, streamline operations and create new business models (Ari Utomo et al.,2023; World Economic Forum, 2023).

In today's competitive environment, organisations must effectively leverage technology to develop new goods and services- a capability referred to as digital capability. However, resistance often arises when modern technologies are perceived as threats to existing principles or processes, leading to organisational inertia (Ari Utomo al.,2023). This resistance frequently stems from cultural barriers, skills gaps, and misalignment between digital initiatives and overall business strategy (Westerman et al., 2022; World Economic Forum, 2023).

DCX Technology (2017) surveyed 376 business leaders from varied industries, including financial services, manufacturing, healthcare, and technology, to gauge their perspectives on digital transformation and organisational change. The survey findings revealed significant insights about organisational inertia and the challenges organisations encounter in effecting digital change. Many of the surveyed executives accepted the need for substantial or extensive changes to be affected to enhance digital capabilities. They raised concerns about their companies' ability to adapt expeditiously to the evolving digital environment because these executives identified significant parts of their organisations as not being digitally inclined, suggesting that the organisational products, operations, and business models have limited dependency on digital information and technologies (DX Technology, 2017).

Similar concerns have been raised in the literature, where researchers have identified organisational inertia as a common challenge in digital transformation.

Kane et al. (2015) argue that successful digital transformation is not just about adopting technology but also about developing strategy, culture, and processes to support digital change. They highlight organisational inertia as a major barrier to transformation. Similarly, Westerman, Bonet, & McAfee (2014) emphasise how large organisations

struggle with digital transformation due to legacy systems, cultural resistance, and lack of leadership commitment.

Vial (2019) identifies barriers such as organisational silos, rigid structures, and low digital maturity as key inhibitors of change. Fitzgerald, Kruschwitz, Bonnet, and Welch (2013) In their research discuss how organisations often underestimate the scope of digital transformation and struggle with aligning digital initiative with business strategy.

Given the above insights, it becomes clear that many organisations acknowledge the limited integration of digital capabilities into their business models and operations, as noted by DXC Technology (2017). Therefore, aligning digital initiatives with business strategy remains a critical yet under-addressed challenged for organisations undergoing digital transformation.

2.4.2. Addressing the challenge of organisational inertia

Ari Utomo et al., (2023.) postulate that companies must work to overcome resistance to change and promote a culture of innovation. Addressing the challenge of organisational inertia can involve the creation of a sense of urgency. In contrast, as a form of motivation, leaders can communicate and emphasise the importance of digital transformation and the losses associated with maintaining the current state of operations.

Additionally, to address inertia and its by-product of lack of technological dexterity, leaders can ensure continuous improvement by offering training programs and resources to help employees develop digital skills and confidence. Auri Utomo et al., (2023),postulate that companies must work to overcome resistance to change and inculcate a culture of innovation.

Pato (2021) agrees and states that addressing the challenge of organisational inertia can involve creating a sense of urgency. As a form of motivation, leaders can communicate and emphasise the importance of digital transformation and the losses associated with maintaining current-state operations. Additionally, to address inertia and its by-product of lack of technological dexterity, leaders can ensure continuous improvement by offering training programs and resources to help employees develop digital skills and confidence.

This can reduce resistance to new technologies. Moreover, organisations must create safe spaces for their human resources to experiment and learn from their failures, as this can reduce employees' aversion to taking risks and trying new digital solutions. Lastly, by

giving recognition to and rewarding employees who are self-starters and demonstrate proactiveness when it comes to contributing to digital initiatives, organisations would be incentivising innovation and ultimately overcoming inertia (Ari Utomo et al., 2023.-b).

Leveraging transformational leadership in driving change and innovation is essential to overcome organisational inertia and engender knowledge management practices in public sector organisations. Public sector organisations can leverage the visionary traits of Senior executives to mediate the negative impact of inertia of knowledge management practices adoption (Ashok, 2021).

Additionally, developing external policies that create conducive environments and cultures for knowledge management is a cycle for organisational adaptation. Inculcating an organisational culture that values knowledge creation, sharing, and adoption, in tandem with leveraging information technology for efficient knowledge management processes, can aid in countering routine rigidity and bureaucratic obstacles. Public sector organisations can continuously improve and innovate by establishing a virtuous cycle between organisational culture and knowledge management practices adoption, ultimately enhancing organisational performance and effectiveness (Ashok, 2021). Organisations need to invest in digital technologies such as cloud computing and artificial intelligence to improve their competency and performance by developing digital capabilities (Li et al., 2023).

promoting a culture of continuous learning, encouraging employees, and inculcating an environment where employees use their digital skills to unearth new opportunities can enable organisations to manage change effectively and enhance their competitive advantage in the digital era (Ari Utom.nd.-b).

Overall, organisations that address organizational inertia and instead inculcate a culture of agility and adaptability are in a better position to traverse the challenges that stem from digitalisation and better position themselves for success in the digital era.

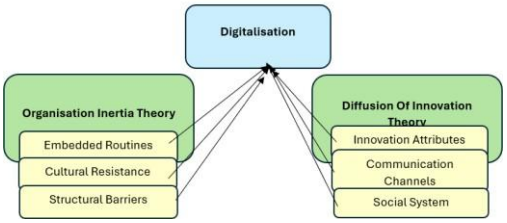


Figure 2.1: Conceptual Framework

2.4 ANALYTICAL FRAMEWORK

2.4.1 *Theoretical Framework*

This study is grounded in three key theoretical perspectives: the Diffusion of Innovations Theory (DIT), theories of digital transformation, and organisational inertia theory. These frameworks provide a comprehensive lens through which to examine the adoption, implementation, and challenges of digitalisation within the South African Police Service (SAPS).

Diffusion of Innovations theory (DIT)

The diffusion of Innovations Theory, originally proposed by rogers (1962) explains how, why, and at what rate new ideas and technologies spread within a social system (Dey, 2023.). According to this theory, innovation diffusion involves five key stages:

Awareness: Individuals become aware of an innovation but lack information about it.

Interest: They develop interest and seek more information.

Evaluation: They consider whether adopting the innovation would be beneficial

Trial: the experiment with the innovation on a limited basis.

Adoption: They decide to fully implement the innovation.

Each stage is influenced by several attributes of the innovation itself:

Relative Advantage- perceived benefits over existing systems.

Compatibility- alignment with existing values and practices.

Complexity- ease or difficult of understanding and use.

Trialability – ability to test the innovation before full adoption.

Observability- visibility of results to others.

(Dey, 2023.).

In the context of the South African Police Service, these stages and attributes are critical in understanding how digital tools such as e-dockets, crime analytics software, and mobile policing applications are introduced and adopted across different units and regions. For example, many participants noted that while awareness and interest in digital tools exist, the evaluation and trial phases are often hindered by outdated infrastructure and limited technical support. Similarly, innovations may fail to reach full adoption due to low observability of benefits or perceived complexity among frontline officers.

By adopting DIT, this study identifies where breakdowns occur in the innovation process and suggests strategies to improve adoption rates- such as targeted training programs , peer-led demonstrations, incremental implementation plans.

Theories of Digital Transformation

Digital transformation refers to integrating digital technology into all spheres of an organisation, fundamentally changing its operations and how it creates and delivers value to its stakeholders (Morze & Strutynska, 2021).

Digital transformation involves considering certain key aspects critical to implementing effective change. The key aspect of technology integration is implementing new digital tools and systems within an organisation. The second aspect relates to process reengineering, where the redesigning of workflows is utilised to leverage digital capabilities. Under the cultural change aspect, a cultural shift within the organisation is necessary to embrace digital innovation (Morze & Strutynska, 2021).

However, Digital transformation refers not only to the introduction of technology but also to the strategic and cultural shift required to leverage digital capabilities effectively. Scholars such as Albertus (2019) and Fitzgerald et al. (2013) highlight that successful digital transformation depends on leadership commitment, stakeholder engagement, and alignment with organisational goals.

Within SAPS, digital transformation must go beyond merely replacing paper-based systems with digital ones. It requires rethinking workflows, empowering personnel with digital skills, and fostering a culture of innovation. This aligns with the resource -based view (RBV), which posits that sustainable competitive advantage comes from leveraging internal resources- in this case, human capital, digital infrastructure, and institutional knowledge.

Organisational Inertia Theory

Organisational inertia refers to the tendency of organisations to resist change due to deeply embedded structures, routines, and cultures. The factors that contribute to organisational inertia include the existence and embeddedness of established routines, such as long-standing practices and procedures that are difficult to challenge (Caroll & Hannan, 2002); The prevalence of a culture of resistance toward change among employees which can lead to reluctance to adopt new ways of working and the existence of structural barriers such as hierarchies and rigid structures that stifle nimbleness and innovation (Caroll et al., (2002).

In SAPS, this manifests in various ways- from reluctance to abandon traditional methods of policing to bureaucratic delays in approving technological upgrades.

This resistance can stall even well-intentioned digital initiatives. However, organisational inertia is not inherently negative; it can serve as stabilising force during times of uncertainty. The challenge lies in managing inertia constructively- ensuring that it does not impede necessary change while still maintain continuity.

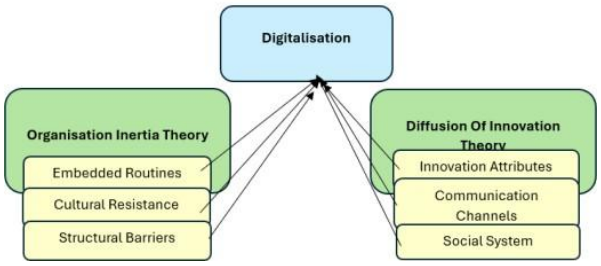
When integrated with DIT, organisational inertia theory helps explain why some innovations gain traction while others do not. For instance, if digital tools are perceived as incompatible with current practices (a key attribute in DIT), they are likely to face greater resistance. Likewise, if there is no clear relative advantage demonstrated, motivation for adoption will remain low.

Integration of Theories

To fully understand the dynamics of digitalisation in SAPS, this study integrates these theories into a cohesive analytical framework:

DIT provides insight into how innovations are adopted at individual and organisational levels. Digital transformation theory highlights the broader strategic and cultural shifts needed. Organisational inertia theory explains structural and cultural barriers to change. Together, these perspectives offer a robust foundation for examining both the opportunities and obstacles associated with digitalisation in law enforcement. By grounding the research in these theories, the study contributes not only to academic discourse but also to practical strategies for advancing reform within SAPS.

2.4.2 *Conceptual Framework*



2.5 Critical review of existing literature and conclusion

While the literature on digital transformation in policing offers valuable insights into the potential benefits of technological integration, it also reveals several debates, contradictions, and limitations that must be critically examined to situate this study within the broader academic discourse.

Differing perspectives on Digital Policing

One key area of debate concerns the impact of digital technologies on policing outcomes. While many scholars argue that digital tools significantly enhance operational efficiency, crime prevention , and community engagement (e.g., Morley, 2020; Deloitte, 2020), others caution against an overly optimistic view.

For instance, Albertus (2019) argues that the adoption of digital systems often leads to technological determinism, where agencies assume that simply introducing technology will solve systemic issues without addressing organisational culture or capacity.

Similarly, Fitzgerald et al. (2013) note that while digital tools may streamline administrative tasks, they do not inherently improve frontline policing unless accompanied by appropriate training institutional support.

This tension between technology-centric optimism and contextual realism highlights the need for a more nuanced understanding of digitalisation in law enforcement.

Ethical and social implications

Another area of contention involves the ethical implications of digital policing, particularly around surveillance, data privacy, and bias in algorithmic decision-making. Some authors (for example Mazerolle et al., 2018) highlight the potential for predictive policing technologies to reinforce existing biases if not carefully monitored and regulated. In contrast, proponents like Van der Giessen and Bayerl (2022) argue that with proper oversight and transparency, these tools can actually increase accountability and reduce discretionary policing. However, much of the literature focuses on Western contexts, leaving a gap in understanding how these ethical dilemmas manifest in African policing environments, especially in South Africa.

Limitations in current research

Despite growing interest in digital policing, several limitations in the existing body of research stand out. A significant gap lies in the lack of context-specific studies; most research focuses on developed countries in Europe and North America, with limited empirical work examining digital transformation in African police services- particularly within the South African context. Additionally, much of the literature tends to overemphasise the technological aspects of doigital tools while overlloking the complex organisational structures, cultural dynamics, and internal power relations that shape how these tools are adopted and used (Hinings et al., 2018). Another critical limitation is the minimal attention paid to user experience. Few studies engage directly with forntline officers or consider their lived experiences, resistance to change, or capacity for adoption. As Hoblos et al. (2023) point our, stakeholder alignemnts is crucial for successful digital transformation, yet this is rarely examined in depth. Furthermore, there is a noticeabl shortage of longitudinal or impact- focused studies. Many contributions are either descriptive or theoiretical , offering little insight into the l;ong-temr effects of digital technologies of policing efficacy or public trust.

This study seeks to address the gaps in several ways. First, it offers a context- based investigation into digitalisation efforts within the South African Police Service (SAPS), thereby contributing to the underrepresented body of African policing literature. Second, it approaches digital transformation through the lens of organisational inertia, providing a more nuanced understanding of how institutional culture and internal resistance shape technology adoption. Third, it incorporates qualitative interviews with SAPS to foreground firsthand experiences that are often absent from top-down analyses. Finally, it positions itself within ongoing debates around digital ethics and equity, ensuring that technological solutions are critically examined alongside the social and institutional contexts in which they are implemented.

Conclusion

By critically engaging with the literature , this chapter has highlighted important debates, contradictions, and gaps in the understanding of digital transformation in policing. These critiques provide a string foundation for this study, which seeks to offer fresh insights grounded in the unique context of the South African Police Service.

CHAPTER 3. RESEARCH METHODOLOGY

Introduction

This chapter details the research methodology employed to investigate the impact of digital technologies on policing practices within the South African Police Service (SAPS). It covers the research design, data collection methods, data analysis techniques, and ethical considerations involved in the study.

The themes addressed in this chapter include an explanation of the chosen research design and justification for its suitability in exploring the research questions; a description of the methods used to collect data, such as interviews and document analysis, and the rationale for their selection; an overview of the analytical approaches employed to interpret the collected data and derive meaningful insights; and lastly, a discussion on the ethical considerations taken into account during the research process, including participant confidentiality and informed consent. This chapter aims to provide a comprehensive understanding of the methodological framework guiding the investigation into the digital transformation of policing operations in South Africa.

3.1 Research approach-Interpretivism

This study adopts an interpretive approach due to its alignment with the research focus on exploring the subjective experiences and social context surrounding digital integration within the South Africa Police Service (SAPS). As Nickerson (2024) suggests, interpretivism emphasises understanding the meaning of social phenomena through the perspectives of those experiencing them. This framework is particularly relevant because the study seeks to uncover how SAPS personnel and stakeholders perceive, interact with, and are impacted by the absence of seamless digital integration.

The choice of interpretivism in grounded in the belief that the challenges and . opportunities of digital integration are significantly embedded in social, cultural, and organisational contexts. Hence, gaining insights into these contexts through the perspective of SAPS personnel can elucidate the systemic barriers and potential pathways to effective digitalisation. Research approach – qualitative.

Qualitative research, grounded in phenomenology, is well suited to this exploration as it prioritises the lived experiences of individuals (Hammarberg et al., 2016).

Phenomenology permits for the exploration of how participants understand and manage their operational environments, particularly in relation to the adoption (or lack thereof) of digital technologies. This study aims to interpret and make sense of the participants' subjective experiences by employing interpretivism, providing a multi-layered understanding of the socio-technical dynamics at play.

Therefore, this study used a qualitative method to gather diverse types of evidence. In addition to conducting desktop research, interviews were employed to capture perspectives and experiences of the selected participants, improving the strength of the findings (Hammarberg net al., 2016)

3.2 Research design- case study

This study employed a single case study design, as outlined by Stake (2020), to provide a deeper exploration and understanding of the research topic within a specific context. The case study approach is particularly relevant for examining difficult phenomena though qualitative research. By focusing on one case, this study aimed to uncover detailed insights, patterns, and details related to the research question, thereby enhancing the strength and validity of the findings.

3.3 Data collection methods – interviews and documents

Fontana and Frey (2018) discussed the art and science of interviewing, stressing its role in qualitative data collection methods. Interviews play a significant role in capturing detailed data and understanding participants' perspectives. They are considered a valuable method for collecting thorough and contextual data from participants, allowing researchers to explore individual experiences, perspectives, and meanings. Employing skilled interviewing techniques allows researchers to establish rapport, prompt Participants for rich narratives, and uncover underlying themes that inform the research outcomes.

Interviews were conducted to gather the rich and layered data mentioned above. The literature review presented in Chapter 2 provided a foundational context for the research topic. Together, these methods offered a comprehensive understanding of the subject matter, enabling the triangulation of data and the validation of findings from multiple sources.

3.4 Population and sample

3.4.1 *Population*

The South African Police Service (SAPS) Technology Management Services sub-division has been selected as the primary case site for this investigation, owing to its important role in law enforcement within South Africa. As the only state-owned law enforcement agency, the SAPS provides an ideal organisational context for this research due to its critical role in upholding public security and enforcing legal standards nationwide. Through a comprehensive examination of the SAPS as a case study, the investigation aims to elucidate the difficulties and potential advantages associated with digital transformation processes within the law enforcement sector.

3.4.2 *Sample and sampling method* - purposive and snowballing

The research employed snowball sampling, where initial Participants are selected based on specific criteria and subsequently requested to refer other potential participants (Biernacki & Waldorf, 1981). Snowball sampling is a common approach in organisational research and allows for identifying key informants within a network (Biermark and Waldorf, 1981). This method is particularly useful when studying hard-to-research populations or seeking participants with specialised knowledge on a particular topic**.**

In addition to snowball sampling, purposive sampling is another sampling method that this study could use. Purposive sampling entails selecting participants based on specific characteristics or criteria relevant to the research objectives (Palinkas et al., 2015). This method allows the researcher to target individuals with the information or experiences required to effectively address the research questions. Purposive sampling is mostly conducted in qualitative research to ensure that participants can share and provide valuable insights related to the study's focus.

For this research study, 8 thorough interviews with key stakeholders of the South African Police Service (SAPS) the number of interviews is informed by the scope of the study, which means that conducting a moderate number of interviews allowed for a comprehensive exploration of the topic without overwhelming the researcher with excessive amounts of data (Guest & Bance, 2006). Secondly, resource constraints such

as the availability of participants, meant that conducting between 8 reviews struck a balance between obtaining rich qualitative data and managing practical limitations (Guest & Bance,2006).

The decision on the number of interviews was also informed by data saturation, where data collection continues until no new information or themes emerge- typically, 8 interviews are sufficient to reach data saturation in qualitative research (Guest & Bance,2006).

Moreover, conducting 8 interviews with participants from different ranks and arears of specialisation within the South African Police Service allowed the study to capture diverse experiences and perspectives, thus enhancing the richness and thoroughness of the collected data (Kuzel, 1992. Lastly, by focusing on a small number of comprehensive interviews, the study was able to investigate each participants insights and experiences thoroughly, therefore prioritising quality over quantity.

The participants were selected using a purposive sampling technique. In addition, purposive sampling targeted specific individuals within the SAPS who are incumbents of critical roles or possess specialised expertise relevant to the research objectives. By selecting participants based on their relevance to the study's focus, this research aimed to obtain comprehensive and insightful data on the impact of digital technologies on policing practices in South Africa.

The use of purposive sampling ensured that the research obtains perspectives and insights from a diverse range of key stakeholders driving the SAPS's digitalisation initiatives.

3.5 The research instrument

This study collected data through structured interviews using an interview guide. The guide outlined the questions and topics to be covered during the interviews, ensuring consistency in data collection and allowing for systematically exploring the research questions.

Section 1: General information: This section addresses the interviewee's background and context within the SAPS, providing insights into their experience and role with the organisation. This information is crucial for understanding the **perspective from which the responses were provided.**

Section 2: Current State of Digital Infrastructure: The second section of the guide explores the interviewee's perception of the SAPS's digital infrastructure, aligning with the research question on technology adoption in law enforcement agencies. Additionally, it helps identify the digital tools and platforms in use, offering valuable data on the organisation's technological environment.

Section 3: Networking and Collaboration: This section investigates the frequency and effectiveness of digital collaboration with internal departments and external stakeholders, linking to the research questions on digital networking practices within the SAPS. Additionally, it examines the primary platforms used for collaboration, shedding light on the communication channels employed for inter-departmental and external interactions.

Section 4: Co-Creation with Stakeholders: This section explores the interviewee's perspective on the importance of co-creation with stakeholders, aligning with the research question on stakeholder engagement in circular business models. Identifies the digital tools utilised for co-creation, providing insights into the collaborative mechanisms employed within the SAPS.

Section 5: Community engagement: This section investigates how digitalisation facilitates community outreach and communication, addressing the research question on community engagement strategies. The section also explores the methods used for two-way communication with consumers, highlighting the digital channels leveraged for interaction.

Section 6: Data Sharing and Security

This section examines the frequency and challenges of data sharing within and outside the organisation, aligning with the research question on data sharing practices.

Section 7: Technological Solutions and Innovation: Section 7 explores the innovative technological solutions harnessed to enhance digitalisation within the SAPS, aligning with the research questions on technological advancements. The section further evaluates the effectiveness of current solutions in addressing organisational challenges and identifies additional technological needs for supporting operational tasks.

Section 8: Open-ended Questions: Section 8 seeks the interviewee's insights on the opportunities and challenges of digitalisation within the SAPS, aligning with the research questions on the benefits and barriers of technology adoption. This section also explores

the interviewee's vision for the future role of digitalisation with organisations, providing futuristic perspectives on technological evolution.

3.6 Procedure for data collection

To gather data from participants, particularly those in SAPS Technology Management Services management, based on their expertise and experience in organisational management, their crucial role in forming the organisation's strategic positioning, and their insights on digitalisation, SAPS management personnel were contacted directly through official channels, for example, the national spokesperson was contacted. They assisted with facilitating communication with research desk coordinators, ultimately leading to the granting of f search permission and allocation of participants.

Moreover, email was employed as a form of communication to schedule face-to-face or telephone interviews with willing participants. Face-to-face interviews were conducted with SAPS management personnel for a more comprehensive and interactive data collection experience. Online interviews were utilised for participants who preferred or required remote communication options. Overall, flexibility was offered in interview formats to accommodate the preferences and schedules of the participants.

Directly engaging with SAPS management ensured access to key decision-makers and stakeholders who can provide valuable insights into the digitalisation process. The collaboration with research desk enhanced the recruitment process by tapping into their knowledge of organisational structure and personnel dynamics. Emails were an efficient initial contact method, allowing for a broader outreach and preliminary data collection before conducting detailed interviews. Face-to-face, online, and telephone interviews offered diverse interview formats to accommodate participant preferences and maximise participation rates by providing flexibility in communication methods.

3.7 Data analysis strategies and interpretation

In the context of qualitative research methodology, Braun and Clark (2019) emphasised the importance of reflecting on reflexive thematic analysis as it is important for understanding and interpreting subjective experiences in research. This approach involves extensively engaging with the data and uncovering patterns and themes while cognising

their subjectivity. The credibility of the findings and the enhancement of the rigour are achieved through their reflection on the analysis process.

The SAPS's choice as the case site is justified by its central role in policing and its potential to serve as a model for other law enforcement agencies looking to optimise operational efficiencies through digitalisation. Additionally, studying the SAPS allows for a comprehensive analysis of the impact of digital technologies on service delivery and crime prevention within a large and diverse policing organisation.

This study utilised the Braun and Calrk method: Braun and Clarke (2006), emphasise the importance of effectively conducting thematic analysis by providing rigorous, plausible, and sophisticated qualitative data analysis. They highlight insufficient data analysis, the use of data collection questions as themes, lack of theme coherence, and mismatches between data and analysis as some of the common errors to avoid. As outlined by Braun and Clarke, the steps in thematic analysis include data familiarisation, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report. These steps involve systematically analysing qualitative data to identify patterns and themes that address the research question. The aim was to generate themes that directly addressed two research objectives:

Objective 1: To explore the current state of digitalisation within the South African Police Service

Objective 2: To identify barriers and opportunities for digitalisation and how organisational inertia manifests in the process

Step-by-Step process of thematic Analysis

- **Data familiarisation:** As an initial step, the research immersed itself in the data by thoroughly reading and re-reading the textual data, such as interview transcripts- All interview transcripts were transcribed verbatim and read multiple times to gain a deep understanding of participants 'perspectives. Initial notes were made on recurring idea, emotions, and responses related to digitalisation, especially around perceived benefits , challenges, and institutional resistance. . For this study, the goal was to familiarise oneself with the content and context of the data before proceeding to the next steps.
- **Generating initial codes:** Using MAXQDA Software, meaningful segments of text that related to the research objectives, were coded. For example, when

a participant said, " we still rely heavily on paper-based systems because most stations do not have reliable internet," it was coded as "Infrastructure Limitations".

Over 116 initial codes were generated across all eight interviews, capturing both explicit statements and underlying meanings.

- **Searching for themes:** The third phase entails transforming the codes into themes. In this phase, researchers actively search for patterns and connections within the coded data to identify overarching themes that carry critical aspects of the research question. Similar codes were grouped together based on concepts. For instance, codes such as " lack of training", " limited Technical Support", and " Digital Aversion" were clustered under the broader theme of "Skills Deficiencies".The analysis in this study used codes to construct themes by applying a thoughtful and analytical approach (Moran, 2021). At this stage, and initial thematic map was created (see Figure 4.1), which included nine broad themes:
    - Challenge and barriers
        -Funding issues
        -Implementation challenges
        -Infrastructure issues
        -Skills deficiencies
        -Inertia manifestation
    - Collaboration with stakeholders
    - Potential role of digital technology
    - Crime response improvement
- **Reviewing themes:** After identifying the potential themes, researchers review and refine the relationships between codes and ensure coherence and meaningfulness among themes, for this study's data analysis, codes that shared the same features were collapsed and clustered to create cohesive themes that accurately represent the data (Moran, 2021).

  Each theme was reviewed to ensure internal coherence and external distinction. Sub- themes were identified where necessary. For example, under the theme " Potential Role of Digital Technology", sub- themes such as " Real-time Data Access", " Predictive Analytics", and " Digital

Communication Tools" were identified to capture nuances in how participants viewed technology's role in policing.

- **Defining and Naming themes:** Once themes have been refined, researchers define and name each theme to clearly articulate its unique focus and relevance to the research questions. The data analysis of this study has defined and name themes to ensure that distinct and non-overlapping themes are produced and that such themes address the research objectives (Moran, 2021). Themes were refined and named clearly to reflect their meaning and relevance to the research objectives.
    - Master themes were finalised as:
      -Current Operational Processes
      -Inertia Manifestation
      -Challenged and Barriers
      -Potential role of Digital Technology

- Producing the Final Report: Findings were synthesised into a coherent narrative, supported by direct quotes from participants to illustrate key points. For example, under the theme " Inertia Manifestation", one participant noted: " There is a culture of resistance to change. People are used to doing things the old way, and anything new is seen as extra work."

Demontsration of how data was systematically transformed into themes

Theme	**Initial code**	**Participant Code**	**Link to research objective**
Infrastructure Issues	Manual systems	" we still use paper dockets; even if we had digital tools , not every stations has internet"	Objective 1
Organisational Inertia	Resistance to change	" people fear that new systems will complicate their work"	Objective 2

Potential of Digital Technology	Real-time reporting	" if we could access live crime stats, our response would be better."	Objective 2

The above table shows how each code was tracked back to the original interview data and mapped to the research objectives, ensuring that findings remained grounded in participants' experiences.

Insights and Patterns

- **Data Interpretation:** Key insights from the data, reveal that skills deficiencies significantly hinder the adoption of digital technologies, while infrastructure issues create barriers to effective implementation. Patterns indicate a correlation between training needs and technology adoption challenges.
- **Axial coding:** ***The use of the code relations browser features in MAXQDA illustrated frequent overlaps between "Digital training needs" and "Technology Adoption Challenges",*** highlighting the interconnectedness of these themes.
- **Data Interpretation:** Key insights reveal that skill deficiencies significantly hinder the adoption of digital technologies, while infrastructure issues create barriers to effective implementation. Patterns indicate a correlation between training needs and technology adoption challenges.
- **Use of MAXQDA Features:** The Code Relations Browser illustrated frequent overlaps between "Digital Training Needs" and "Technology Adoption Challenges," highlighting the interconnectedness of these themes. (MAXQDA, 2024).

By applying a rigorous and transparent thematic analysis process, this study ensured that the findings were both data-driven and closely aligned with the research questions. The use of coding tables and thematic maps demonstrates analytical depth and methodological clarity, enhancing the overall credibility and trustworthiness of the results.

3.8 Quality Assurance

3.8.1 *External validity OR transferability*

The term "*transferability*" refers to the ability to extrapolate. It assumes that results can be generalised or applied to different contexts or groups. Transferability is relevant when discussing strategy and organisational performance because these variables apply to any other organisation and thus are transferable (Drisko, 2025). The final criterion, authenticity, refers to how accurately and truthfully researchers depict a variety of realities (Elo et al., 2014).

Transferability can be enhanced by providing thick descriptions of the research or purposefully sampling Participants who can offer diverse perspectives. Both these strategies allow for assessing the applicability of the findings to other settings or contexts (Tracy, 2010). This study is transferable because it employs purposive sampling, where Participants were selected based on specific criteria relevant to the research objectives. Purposive sampling allows for selecting Participants who provide rich and diverse insights into the research problem, enhancing the potential applicability of the findings to similar contexts.

3.8.2 *Internal validity OR credibility*

Researchers must ensure that the study's Participants are appropriately identified and described to build credibility. Using research methodologies such as interviews and the sample size details, this study defined and described the targeted artefacts/ participants. Credibility can be demonstrated through triangulation, prolonged engagement, member checks, and peer briefing. By utilising multiple data sources and methods and cross-verifying information from multiple sources, this study has shown credibility by employing triangulation to ensure the believability and trustworthiness of the findings.

3.8.3 *Reliability OR dependability*

The stability of data throughout time and under multiple settings is referred to as dependability. Dependability is created by the creation of an audit trail to document the researcher’s data, methods, and decisions; by way of confirming the researcher’s findings through multiple sources, triangulation can be employed as well to establish the

consistency and reliability of the research outcomes (Tracy, 2010)This study has ensured dependability using triangulation, where data analysis using multiple methods was employed to confirm the consistency and accuracy of results. Lastly, this study is fit for purpose when it comes to dependability because the variables thereof allow for the extraction and extrapolation of stable data. After all, the subject matter around digitalisation is relevant to any organisation. This approach has helped establish the reliability and stability of the research study outcomes over time.

3.9 Ethical considerations

The appropriate research methodology must be selected by thoroughly considering the ethical issues of conducting research. Because research involves human participants, researchers must adhere to the fundamental principles of ethical research. A good example of ethical considerations would be obtaining approval from the relevant bodies or organisations before collecting data and acknowledging that post-data collection approval is unethical (Fleming & Zegwaard, 2018.). Society has set high accountability standards and expectations for researchers. Therefore, ethical conduct has come under scrutiny. Researchers who collect data without first seeking approval are often marginalised in institutions that place ethical standards in high regard (Fleming & Zegwaard, 2018.).

CHAPTER 4. PRESENTATION OF RESULTS / FINDINGS

4.1 Introduction

This chapter aims to explore the many themes emerging from the digitalisation efforts within the South African Police Service (SAPS) and report on the findings as informed by these themes. It explores the challenges, opportunities, and impacts of these digital initiatives on policing practices, community engagement, and operational efficiency. Each theme is supported by relevant quotes from interviews and discussions providing a comprehensive understanding of the current environment of SAPS's digital transformation.

Demographic profile of participants

This section provides an overview of the demographic profile of the study participants, including their gender, race, and the timeline of their experience within the SAPS. The study involved interviews with eight participants, selected using purposive sampling. These participants are high-ranking officers serving in several technology-focused roles within the SAPS's Technology Management Service. The selection criteria were based on the perception that these individuals possess the necessary knowledge and experience due to their extensive tenure in the SAPS, their previous leadership roles, and their high-ranking positions.

Gender, race profile of participants

The sample consisted of the three males and four females. Regarding race, most participants were African. The observed gender and race representation was not predetermined, as this study was designed to be gender and race neutral.

Most participants have extensive careers in the SAPS, many of them starting at operational levels and advancing to higher-ranking roles over time. On average, participants had 15 years of service in the SAPS, reflecting their deep knowledge and experience in the organisation's operations. All participants held high-ranking positions, such as brigadier, lieutenant general, and colonel. They also fulfil key roles, including National Applications Manager and head of Component Applications. These individuals have been instrumental in leading the formulation and implementation of SAPS's digitalisation efforts.

Although certain demographic details of participants were recoded, the researcher determined that these had no influence on the study's findings.

Position	Number of Respondents	Context
Brigadier	6	Senior-level officers responsible for several operational and strategic roles in TMS.
Major- General	1	High-ranking officer overseeing and leading key initiatives within TMS.
Colonel	1	High-ranking officer overseeing and leading key initiatives within TMS.

Table 4.1: Respondent demographics

Discussion:

Identification of Themes

Theme generation Process: The grouping of related codes into overarching categories, resulted in the emergence of themes. Theming is a Braun and Clarke suggested phase and involves the discovery and understanding of patterns and relationships between and across data sets (Dawadi, 2020) . For this study, theme generation started with listing all the codes that were identified across the data set. An analysis of the codes required considering how many codes may be merged to form a broad topic (Dawadi, 2020).

This step mainly emphasised the examination of themes beyond codes. Braun and Clarke (2006) point out that themes extrapolate and gather the significant aspects of the study question related information, or the significance uncovered during the data collection. As a result, for this study, it was crucial to conceptualise certain codes as the fundamental units and blend related or different codes to produce possible topics pertaining to the study questions.

The theme generation phase is a laborious phase of the analysis process. To lessen the process's difficulty, a list of codes was formulated and then organised into a pile of themes that reflected the relationship between codes and themes. Given the explorative nature of

the study, it was crucial to revisit and re-read all the transcripts prior to organising codes in clusters according to themes.

The relevant data extracts were collated within the identified themes. The theme development phase allowed for the incorporation of concepts and issues previously highlighted in the literature review. It was discovered that some of the themes from the literature review were significant, thereby absorbing some codes under them. Following the suggestions of Braun and Clarke (2006), Dawadi (2020) posits that the prevalence of themes in most data items is important. Although all relevant information including that which appeared in a few sources was considered. The clustering of the codes followed a thematic approach that entailed forming an initial thematic map (please see figure below). The thematic map included 9 broad themes (namely: challenges/ barriers, funding issues, implementation challenges, infrastructure issues, skills deficiencies, collaboration with stakeholders, potential of digital technology, crime response improvement, inertia manifestation).

Tabel 4.2: Familiarisation with data. Research points of interest, linked to research questions

Research Questions	Codes	Initial Points of Interest
Where are the attitudes of police personnel towards the digitalisation of operations?	Attitudes toward technology, Resistance to change.	75
How does digitalisation impact the efficiency of police operations?	Operational efficiency, Time management	90
What challenges do police face in the implementing of digital tools?	Technica challenges, Training needs	85

How does digitalisation affect community-police relations?	Community trust, Transparency	80
What role do leadership and management play in the digitalisation process?	Leadership support, change management	70
	TOTAL	400

Table 4.3: Data Extracts and Codes

Data extracts	Code for
The challenges that we are having... you cannot digitalize everything the same way	Environmental Diversity
Technologies working effectively within the urban area... deep rural area, it won't work	Urban-Rural Spectrum
You don't have enough broadband capabilities within that area... it is geographically out	Geographical Contexts
The police need to implement the kiosk like that (self -service kiosk) at every police station.	Community Collaboration

We would send business requirements to them, and they would publish a tender and rescind it before conclusion.	Challenges in Implementation
The biggest one would be... the finances, the budget, you know the state these days...	Funding Issues
The reality is that we need to address the skill gaps in technology.	Technological Skill Gaps
We came up with the tools like My SAPS app... to assist in recording their complaints	Mobile Apps for Policing

The above table indicates the sorts of operations involved in the data coding process. To have an overall picture of the codes, all the 116 codes, along with some relevant extracts, were exported from the NVivo and presented on a table. The table supported her to further understand the nature of the data in the study.

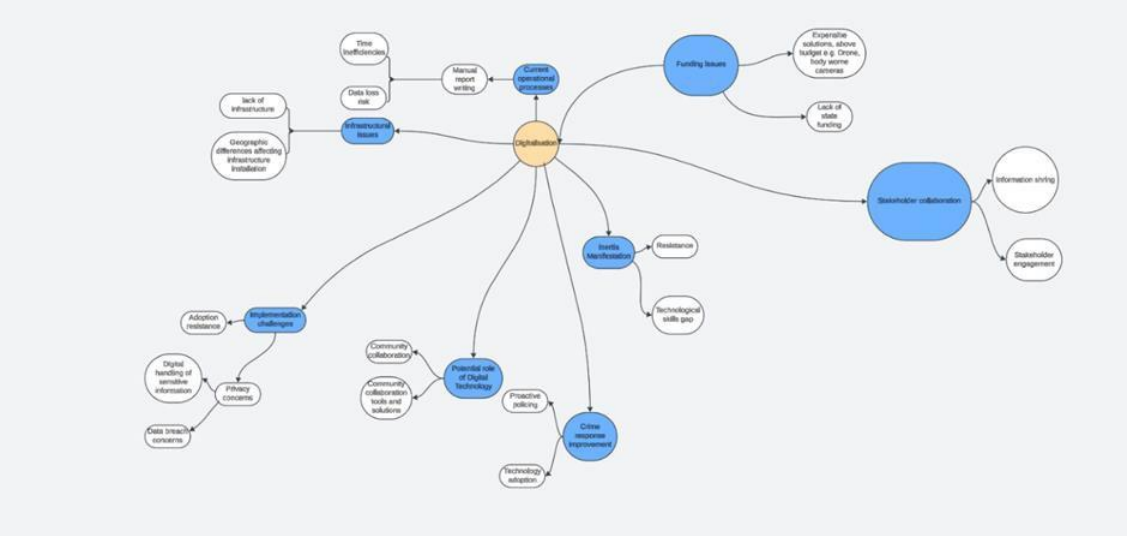


Figure 4.1: Initial thematic map

Source: Own construct

Theme review

The theme review stage involved a purposeful combining of all the themes, with the aim of refining and presenting all initially grouped themes systematically. According to Dawadi (2020), the Braun and Clarke method of thematic analysis recommends the checking of themes for internal homogeneity and external heterogeneity (theme distinction). The theme review stage of this data analysis entailed two levels. The first level saw the extraction of all coded extracts that related to each initial theme from MAXQDA and exporting them to Microsoft Word for ease of cross-reference of coded extracts and to retrieve, compare, and organise coded extracts and themes in a meaningful manner. Each theme and sub-themes of coded extracts were re-read and clustered to check whether they formed a coherent pattern.

At level two, the process was the same as level one but focussed on the entire data set. At this level, the consideration was the validity of individual themes in relation to the data set. This is done to determine whether the "thematic map" reflects the meanings evident in the entire data set (Dawadi, 2020). Thus, all the transcripts were reread to make certain that there was congruence between the themes and the entire data set. This process led to the emergence of new codes, albeit not significant ones, which led to the halting of the data recording.

Thereafter, all themes were combined, and the thematic map was refined to reflect the type of themes developed for this study, how the themes come together, and the story the themes talk about the data. The theme review process meant that some of the themes and sub-themes were merged with other themes or altogether done away with. A good example is 'collaboration with stakeholders ', which does not fit into any thematic category and was merged with 'the potential of digital technology'.

The same can be said about the sub-theme 'adoption resistance' which proved to be redundant and would only work when merged with inertia manifestation. On the other hand, 'crime response improvement' contained limited data to be submitted as a standalone theme and was merged with 'the potential of digital technology'. New themes were also introduced to bring together related themes. For instance, a new theme

'challenges and barriers' were introduced to include the themes and sub-themes of 'funding issues'; technological skills gap'; and 'privacy concerns.

Furthermore, 'potential role of digital technology' was revised also to subsume 'implementation challenges' and be extended by 'surveillance and monitoring'; 'digital communication tools'; 'predictive analytics'; and 'real time data accesses. The results of the whole revision process are depicted in figure 4.2 below. The clustering of the themes resulted in four different categories/ codes: Current operational processes, inertia manifestation, challenges and barriers, and the potential role of digital technology (purple) are the master themes and the 8 in blue are subsumed under the master themes. Four of the subsumed themes had sub-themes coloured (in yellow).

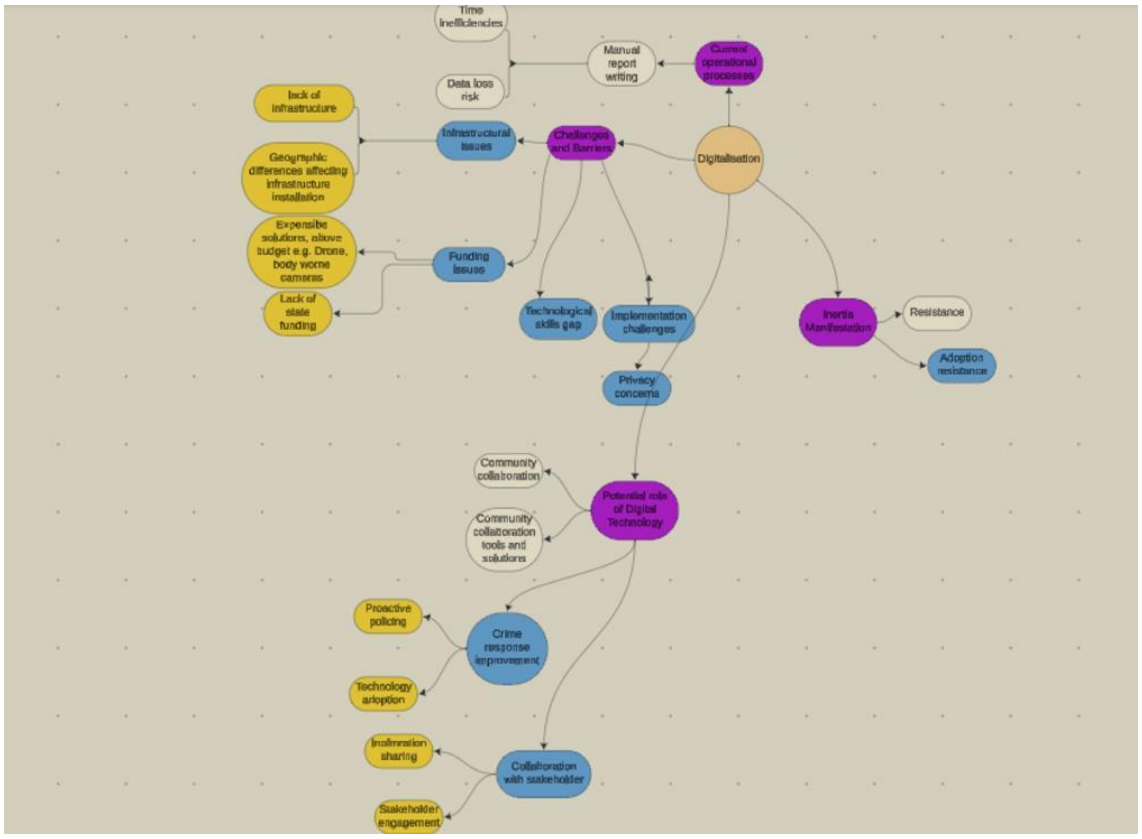


Figure 4.2: Revised and integrated thematic map

Source: Own construct

Defining and Naming Themes The defining and naming stage of the thematic analysis was not conducted as the naming done during the previous stages of analysis was deemed sufficient. As a result, redefining or renaming the themes was unnecessary. The thematic definitions and names established earlier were already coherent, fitting, and reflective of

the data's essence, thus meeting the requirements for this phase. Because of this, the refinement and reorganisation process described by the referenced author, including merging lower-level themes with higher-level ones and reclassifying sub-themes, were not applicable. Instead, the themes identified and named in earlier stages were considered appropriate and sufficient for addressing the research questions and telling a coherent story about the data. Therefore, additional modifications to theme definitions, naming, or mapping were not pursued.

The following themes have emerged from the research:

1. **Benefits**
    - Theme 1.1: Mobile Application for Policing
    - Theme1.2: Community Trust and Engagement
    - Theme1.3: E-Dockets and Digital Record Keeping
    - Theme 1.4: Time Savings and Efficiency
    - Theme 1.5: Community Feedback Mechanisms
2. **International Best Practice**
3. **Stakeholder Collaboration**
4. **Crime Analytics Tools**
5. **Integration Efforts across Justice System Agencies**
6. **Digitalisation Initiatives and Automation**
7. **Barriers and challenges to Digitalisation**
    - Theme 7.1: Communication Challenges
    - Theme 7.2: Digitalisation Challenges by Geographic Area
    - Theme 7.3: Resistance to Change
    - Theme 7.4: Technological Skills Gap
    - Theme 7.5: Funding Issues
    - Theme 7.6: Data Privacy Concerns
    - Theme 7.7: Manual Report Writing
    - Theme 7.8: Paper-Based Record Keeping

EMERGENT THEMES-

The study findings have identified the following themes, which align with the two propositions addressed by the study. These themes are outlined in detail below.

Benefits

Mobile Applications for Policing

Participants highlighted the significance of mobile applications, particularly the My SAPS app, in enhancing communication between the police and the community. The app serves as a vital tool for reporting crimes and accessing police services, yet many community members remain unaware of its existence. This gap in awareness indicates a need for targeted outreach and education to ensure that app is effectively utilised, thereby ensuring better community engagement and trust in law enforcement. As participants one noted, ***"But with the MySAPS app and even recently, it came up that people did not know that it existed."***

Community Trust and Engagement

This theme examines how digital tools can enhance community trust engagement with SAPS. Participants discussed the potential for digital tools can enhance community trust and engagement with SAPS. Participants discussed the potential for digital technologies to promote better relationships between the police and the community, thereby improving public perceptions of SAPS. The effective use of digital tools is seen to increase transparency and accountability which are crucial for building trust. Participant Two remarked, ***"Because if you look at people even at the community service centre where you walk in, I mean, people still need training, some of them, in statement-taking, in how to fill an accident report. That statement-taking is already going to determine your detection rate on your docket or your conviction rate of the suspect to help the investigating officer. Because the strength of your statement is very important from the beginning, you know."*** *Participant Four suggested,* ***"At some point, you know, and also automating the processes of queues in the community service centres."***

E-dockets and digital record keeping

The transition from paper-based to electronic dockets is a significant focus for the South African Police Service (SAPS), with participants highlighting the implications for case management. Some participant defined this shift as a necessary evolution in operational practices, moving away from manual processes to more efficient digital systems that enhance record-keeping and case handling. The integration of e-dockets allows for improved data management and faster access to information which is crucial in law enforcement.

However, the journey towards full digitalisation is not without its challenges. Participants noted that while there is a push to digitise forms and processes, legal mandates still require the existence of original paper dockets, complicating the transition. ***Participant Five articulated this concern, stating, "We have not really digitised all our forms as such, making it to E, because if you look at the actual docket. So, while we are scanning and while we automate a lot of process, you know what, it's not always easy."***

Moreover, the dependency on other stakeholders such as the National Prosecuting Authority (NPA), adds another layer of challenge. ***Participants 5 further elaborated, "even if you got to court, you don't have the docket. I am told you are thrown out of court because the processes within the NPA, how they are working, they want to see their original docket when you go and present you case in court."***

This highlights the need for collaboration and alignment among many entities to ensure a seamless transition to digital systems.

The shift to e-dockets represents a significant advancement in operational efficiency, allowing for faster case handling and improved data management. The ongoing reliance on paper-based systems poses risks to data integrity and accessibility, emphasising the importance of overcoming these barriers to enhance the overall effectiveness of SAPS in managing cases and responding to crime efficiently.

Time Saving and Efficiency

Some participants described the use of digital tools in police operations to transition from traditional, manual processes to more efficient and automated systems, improving the overall speed and effectiveness of tasks. For instance, one participant highlighted that these tools ***"make life easy" and enhance "the turnaround time for whatever processes"*** (Participant three).

Others emphasised how digital technologies enable real-time workflows, eliminating the need for officers to return to the office to complete paperwork. As noted by one participant, officers were able to complete tasks directly at the crim scene with information sent to the office instantly: ***"They don't have to go back to the office and compile and write down the statements and everything. They were doing things at the crime scene, those things were real time that once you are done with whatever you are doing, it was sent to the office whilst you are still in the field"*** (Participant Seven).

These advancements in efficient allow police officers to spend less time administrative tasks and more time on community engagement and proactive policing. By streamlining processes, digital tools improve crim prevention and response efforts, contributing to better policing outcomes.

Community Feedback mechanisms

Some participants emphasised the value of implementing feedback mechanisms to understand community perceptions and experiences with SAPS. These mechanisms are seen as essential for enhancing transparency and efficiency using digital tools. For example, one participant mentioned initiatives like body-worn cameras and dashboard cameras as tools to improve services for the community: We are looking into body-worn cameras. "***We are looking into dashboard cameras that will assist the police on the field to enhance services for the community. But also, as I'm saying, those I've seen, things like that, but I also don't know the detail of how far projects are."-*** (Participant Five). Such tools not only improve operational transparency but also create opportunities for the community to engage meaningfully with the SAPS. by gathering feedback and identifying areas for improvement, these mechanisms can help develop trust, collaboration, and netter relationships between the police and the communities they serve.

International Best Practice

Some participants emphasised the importance of learning from successful models of digitalisation in policing from other countries, suggesting that these insights could be adapted for the South African Police Service (SAPS). They noted that international standards and practices can p[provide valuable strategies for enhancing policing operations.

For instance, Participant three remarked on the significance of established systems stating, ***"That one gain of DNA database is called CODIS. But we cannot claim the proper success for it, there. It's just that these are things that you literally cannot do manually, so, then that's an international standard."*** This highlights the necessity of adopting advanced technological solutions that have been effectively implemented in other jurisdictions.

The advancements brought about by these international practices enable police services to improve their operational effectiveness and adapt to modern policing challenges. By integrating proven technologies and methodologies, SAPS can enhance its capabilities

and ensure a more effective response to crime. One participant noted that embracing these international standards is crucial for SAPS to leverage global advancements in policing technology, ultimately leading to improved public safety and community trust.

Stakeholder collaboration

Some participants defined stakeholder collaboration as a critical component for enhancing the digital capabilities of the South African Police Service (SAPS). They emphasised that effective partnerships with a plethora of stakeholders, including private companies and government departments, are essential for leveraging resources and expertise to improve policing operations. Other participant highlighted those collaborations facilitates better communication and information sharing, which is vital for operational efficiency.

Due to these collaborative efforts, SAPS can access advanced technologies and funding that may not be available internally, allowing them to implement innovative solutions to policing challenges. This collaborative approach enables SAPS to enhance its service delivery and engage more effectively with the community. One participant noted the significance of these partnerships, stating that they are crucial for navigating the difficulties of modern policing in a digital age. Participant Seven shared insights incurrent collaborative initiatives, saying ***"I think currently what I know, its SharePoint online that we are using because like I'm saying, we have implemented that in the past two years. We are collaborating with Vodacom, with the Department of Justice and with AGSA and just to name a few."*** This illustrates how SAPS is actively working to improve its digital infrastructure through stakeholder collaborations ultimately aiming to strengthen its operational, capabilities and community relations.

Crime Analytics Tools

Some participants defined crime analytics tools as essential for enhancing proactive policing efforts within the South African Police Service (SAPS). They emphasise that these tools enable law enforcement to move beyond traditional methods of crime management, allowing for a more-data-driven approach to policing. Other participants highlighted the importance of integrating multiple applications into a single platform, which facilitates seamless communication and analysis of information.

Due to the implementation of crime analytics and mapping tools, SAPS can better allocate resources and respond to emerging crime trends. The advancement in data analytics

empower the organisation to leverage information effectively, leading to improved strategic planning and operational efficiency. This shift towards a more analytical approach allows SAPS to enhance its capabilities in crime prevention and response.

Participant three articulated the significance of these tools, stating, ***"It's a solution that is used around the world by the police to manage digital evidence. We are also working on social media monitoring to track individuals who commit crimes and discuss them online."*** This illustrates how the SAPS is adapting to modern challenges by utilising technology to enhance its policing strategies and improve community safety. Another participant repeated this sentiment, emphasising the need for integrated systems that allow officers to analyse many forms of data from single a single platform, thereby streamlining their operations and enhancing their effectiveness in the world.

Integration Efforts across Justice System Agencies

A recurring theme in the segments is the need for greater integration across several agencies and departments within the justice system. As highlighted in the interviews, this includes the need for seamless collaboration between the South African Police Service, Home Affairs, the National Prosecuting Authority. Achieving this level of integration is crucial for ensuring the effective tracking and management of individuals throughout the justice process. The analysis of related memos emphasised that overall efficiency and effectiveness in law enforcement operations is requires to achieve uniformity and data synergies.

As pointed out by participant five***, "We haven't really digitised all our forms as such, making it to E, because if you look at the actual docket, the brown docket, it will be mandated by law or by the NPA to have the docket. So, while we're scanning and while we automate a lot of processes, you know what, it's not always easy."***

However, Participant three, recognised the strides being made to achieve inter-agency collaboration and stated that, ***"So this system is integrating with Home Affairs software. And query Department of Home Affairs query harness and then harness will come back because you're a South African, say as they it come back it comes back with your image"*** **Digitalisation Initiatives and Automation**

The interview segments also reveal several ongoing digitalisation initiatives and automation efforts within the law enforcement and justice system. These include automating evidence analysis processes, developing an integrated person management

system, and recognising the need for increased digital training. While there are promising initiatives underway, the successful implementation of these projects is contingent upon addressing existing barriers and ensuring adequate training for personnel.

This emerged in responses by Participant Five, who said" ***people still need training"***

Participant Four highlights a common barrier and that is***, "older people sometimes who are not interested in technology"***

Challenges and barriers

Challenges

Communication challenges

Some participants highlighted the ongoing issues to communication tools and their effectiveness within the South African Police Service (SAPS). They noted that the reliance on outdated analogue radio communication systems hampers operational efficiency and responsiveness. For instance, Participant One remarked***, "Yes, there is still the use of analogue radio communication in the provinces. If you would recall, I don't know if you have done a little bit of research on radio communication. You need to take nota that for you to have that Tetra standards type of radio communication you need to be able to connect with every 45-kilometere radius into a base station."*** This reliance on older technology presents significant challenges, particularly in maintaining effective communication across diverse geographic arears, especially in rural regions where connectivity may be limited. The advances in communication technology are crucial for ensuring timely and accurate information flow, which is essential for effective law enforcement operations. One participant emphasises the critical nature of effective communication stating that improvements in communication technology and protocols are necessary to enhance the overall efficiency of SAPS. The need for modern communication systems is evident, as they can facilitate better coordination among officers and improve response times to incidents. Addressing these communication challenges is vital for SPS to enhance its operational effectiveness and ensure that officers can effectively carry out their duties in a rapidly changing environment.

Digitalisation Challenges by Geographic Area

The interview segments reveal that the diverse geographic area of South Africa heavily influences the process of digitalisation. As noted in the segments.

"The challenges that we are having, of course with the SAPS, is that we are within an environment where you have you have urban, your semi-urban, and deep rural areas, that is the challenged that you are having", pointed out Participant

This suggests that a one-size-fits-all approach to digitalisation is not feasible, and that tailored solutions are required to address the unique needs and constraints of different regions. The analysis indicates that geographic disparities significantly impact the implementation of digital tools and processes, necessitating a strategic approach that considers local contexts.

Participant One highlighted infrastructure and legal limitations and pointed out that, ***"You need to take note that that for you to have that Tetra standard type of radio communication you need to be able to connect within every 45-kilometre radius into a base station."***

Resistance to change

Some participants highlighted the challenges associated with resistance to change as the SAPS transitions to digital practices. These challenges often stem from a lack of interest or skills among some staff members, particularly older employees, in adopting and using new technologies.

One participant contrasted the attitudes of younger employees (Gen Zs) with those of older staff noting that younger employees tend to embrace digital tools enthusiastically: ***"The organisation is appointing several of the, the, the Gen Zs. I like them because, if I give them the tools and say this is tool, they try them. So sometimes they come back and show you something that you were not even aware of because they've got that thing to say that if it's an IT solution, I'll play around with it. But you get the older people who are not interested in it sometimes."***- (Participant three).

"In terms of transformation and acceptance by the colleagues, we are slowly even ourselves trying to learn about change management and let people understand what it means.", Participant three, further pointed out.

Resistance to change can pose significant barriers to the successful implementation of digital initiatives. Overcoming these barriers requires effective change management strategies and comprehensive training programs to equip all staff with the necessary skills and mindset. By embedding a culture of innovation, SAPS can ensure smoother adoption of digital tools and more effective operations. As attested to by participant Five, who highlighted that ***"if you look at people even at the community service centre where you walk in, I mean, people still need training, some of them, in statement-taking, in how to fill an accident report. That statement-taking is already going to determine your detection rate on your docket or your conviction rate of the suspect to help the investigating officer...If everything was digitised and everything, it would make it so much more effective. We'd be able to sign digitally...But it's just that certain things are, you know, like that, you know. And even in terms of our complaints and everything that get, we are trying to improve that environment."***

Technological skills Gap

This theme explores the challenges posed by insufficient technological skills among SAPS personnel, impacting the effective use of digital tools. Participants emphasised the need for comprehensive training programs to quips officers with the necessary competencies to use digital tools effectively. This skills gap is seen as a barrier to maximising the benefits of digitalisation. Participant three suggested***, "I think we need to*** *look at more e-training, you know, that part of it.*

Funding Issues

Financial constraints were identified as a critical barrier to the successful digitalisation of SAPS operations. Participants expressed concerns about limited budgets that hinder the acquisition of necessary technology and delay digital projects. This theme highlights the need for strategic financial planning and potential partnerships to enhance resource availability for digital initiatives. Participant Four pointed out, ***"The finances, the budget, you know the state the days, they don't have enough money,"*** Participant three recognised the budget

limitations and pointed out that***, The finances, the budget, you know the state these days, they don't have enough money."***

Data Privacy Concerns

Some participants defined data privacy concerns as a significant challenge that arises from the increasing reliance on digital tools within the South African Police Service (SAPS). They emphasised that as SAPS handles more sensitive information in a digital environment, the risks associated with data breaches and unauthorised access become crucial. Other participant highlighted the importance of ensuring compliance with legal standard and regulations to protect personnel information and maintain public trust.

Due to the digital transformation and the technologies being adopted, the SAPS must address the difficulties of data management while safeguarding the privacy of individuals. the advancements in digital tools necessitate a robust framework for data protection, as failure to address these concerns could lead to severe consequences, including legal repercussions and damage to the organisation's reputation.

One participant pointed out the critical nature of these duties, stating that the shift towards digitalisation requires a heightened focus on data privacy. They noted**,** ***"As we increase our reliance on digital tools, we must prioritise data privacy to ensure that we are compliance with legal standards and protect the information we handle"***

This emphasises the need for SAPS to implement comprehensive data privacy strategies that not only comply with regulations but also promote trust and confidence among communities they serve.

Manual Report Writing

Some participants defined the challenges of manual report writing within the South African Police Service (SAPS) as a significant barrier to operational efficiency. They acknowledge that traditional handwritten processes are time-consuming and prone to errors which can hinder effective policing. Other participants emphasised the need for automations, suggesting that transitioning to digital reporting systems would streamline processes and enhance data accessibility.

Due to the reliance on manual report writing, SAPS faces issues such as inefficiencies in time management, difficulties in storing and retrieving information, and risks of data loss. The call for digitisation of essential documents such as pocketbooks and occurrence book, reflects a broader need for modernisation within the organisation. One participant articulated this need, stating, ***"We're trying to automate those processes…There's lot of manual work that needs to be digitised."*** (Participant Four). The shift towards digital reporting systems is seen as a crucial steps un improving operational effectiveness. By adopting technology, SAP can reduce errors, enhance data management, and ultimately improve service delivery. This transition not only addresses current inefficiencies but also positions the organisation to better respond to the evolving demands of modern policing.

Paper-Based Record Keeping

Some participants highlighted the ongoing challenges associated with paper-based record-keeping within the South African Police Service (SAPS). They pointed out that the reliance on physical files creates significant obstacles, such as space constraints, difficulties in sharing information, and the risk of physical damage to records. One participant expressed concern about the implications of this trend, stating, ***"We've got files that are lying in offices…. that is problem that is going to hinder us as well to get to see the value of digitalisation."*** (Participant seven). The continued use of paper records not only poses risks to data integrity but also limits accessibility to crucial information. As time passes, the quality and value of these records can dimmish, further complicating the operational environment for the SAPS. Transitioning to a digital record-keeping system is seen as a vital step in mitigating these risks and enhancing overall operational efficiency.

By adopting digital solutions, SAPS can improve data management, streamline processes, and ensure that critical information is readily accessible. This shift towards digital record keeping aligns with broader trends in organisational transformation where the focus in on leveraging technology to enhance service delivery and operations effectiveness. The move away from paper-based systems is essential for SAPS to modernise its operations and better serve the community.

By adopting digital solutions, SAPS can improve data management, streamline processes, and ensure that critical information is readily accessible. This shift towards digital record-keeping aligns with broader trends in organizational transformation, where the focus is on leveraging technology to enhance service delivery and operational effectiveness. The move away from paper-based systems is essential for SAPS to modernize its operations and better serve the community.

These challenges demonstrate the need for strategic planning and resource allocation to ensure that the necessary investments are made to support the digital transformation of the justice system. The analysis reveals that funding issues are a critical factor that can delay or hinder progress of digital initiatives, necessitating a comprehensive approach to budgeting and resource management.

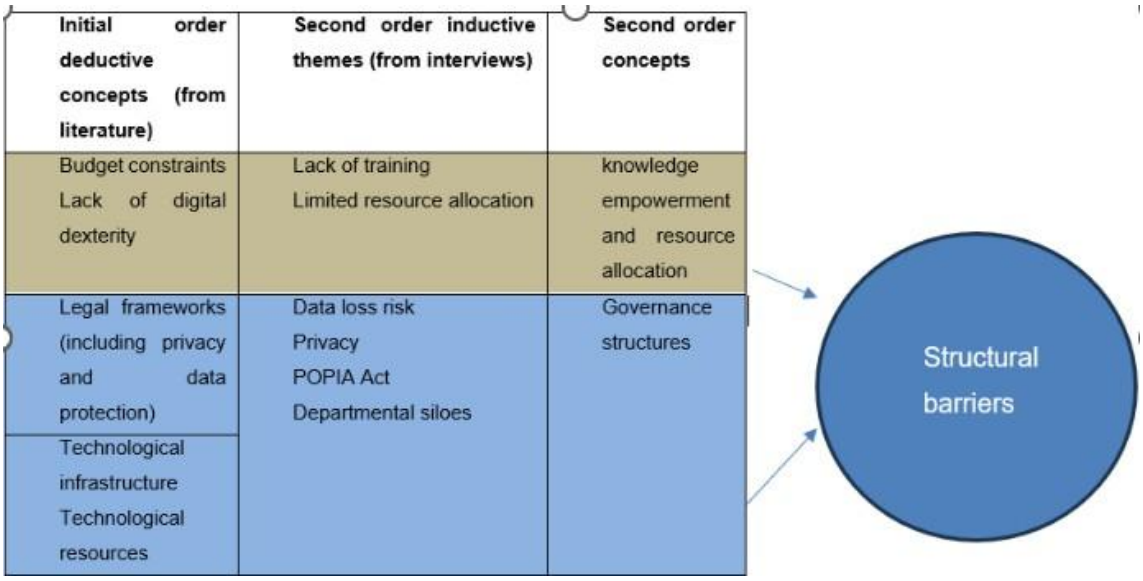


Figure 4.3: Structural barrier to digitalisation illustrative after coding

Source: Own construction

Lastly, the segments emphasise the importance of engaging with the broader community in the digitalisation process. As exemplified by the collaboration with the South African National Deaf Association. It is crucial to consider the needs and perspectives of all stakeholders, including marginalised groups, to ensure that the digital solutions developed are inclusive and accessible to all. The analysis highlights that community trust and engagement are vital for the successful adoption of digital tools, as they forge a sense of ownership and accountability within the community. Participant Four advised that the organisations recognise the importance of successfully adopting digital tools and states that, *"**But I know there are projects that are kept on being mentioned, but I don't know***

how far they have gone. Because I know at some point, they have heard about the organisation trying to investigate electrifying the or digitising the taking of statements. At some point, you know, and automating the processes of queues in the community service centres."

4.2 Results pertaining to objective 1- To explore the current state of digitalisation within the South African Police Service

The exploration of digitalisation within the South African Police Service (SAPS) reveals a challenging environment characterised by both significant advancements and persistent challenges that critically influence the operational effectives of law enforcement.

One of the notable advancements highlighted by participants is the improvement in communication and service delivery through the integration of digital platforms. The se platforms facilitate a two-way communication flow between the police and the community, which significantly enhances community engagement. For instance, a participant mentioned, ***"For me, it's just about integrated collaboration within a command centre where you've got multiple technologies being on one platform where I can seamlessly dispatch without even thinking that I need to go to another application."*** This illustrates how digitalisation enables quicker dissemination of information, thereby encouraging greater interaction between law enforcement and community members. Such improvements align with existing literature that emphasises the importance of stakeholder engagement in policing practices, highlighting the potential of digital tools to bridge gaps between the police and the public.

Moreover, digitalisation has led to enhanced operational efficiency within SAPS. The adoption biometric systems for identifying suspects exemplifies this advancement. Participant three noted, ***"If we arrest a person, we must first search by putting a fingerprint…the system takes that information and cross-checks it with other data sources and provides feedback on the fly***." This process significantly reduces the time required for processing arrests and illustrates how technology can streamline core operational tasks. Such advancements support the argument that the integration of technology within law enforcement can enhance overall efficiency and effectiveness in crime management.

One of the notable advancements highlighted by participants is the improvement in communication and service delivery though the integration of digital platforms. These platforms facilitate a two- way communication flow between the police and the community, which significantly enhances community engagement, for instance, a participant mentioned ***"We are doing it, quite a lot…developing new systems that integrate community feedback, for instance, we have the MySAPS app. It's an application where we do allow users to communicate with us, to provide tips, for instance."***. this illustrates how digitalisation enables quicker dissemination of information, thereby encouraging greater interaction between law enforcement and community members. Such improvements align with existing literature that emphasises the importance of stakeholder engagement in policing practices, showing the potential of digital tools to bridge gaps between the police and the public.

However, despite these promising advancements, the research identifies several critical challenges that hinder the effective implementation of digitalisation in SAPS operations. One of the primary challenges is inadequate infrastructure, particularly in remote arears where many police stations lack the necessary hardware and software to support advanced digital tools. Participants expresses concern that without proper technological backing, the benefits of digitalisation cannot be fully realised, for example one participant argued that ***"Even a simple thing, like if you want to put on drones and body worn cameras, you have to look at infrastructure and you're looking nationally... sometimes some geographical areas are not allowed".***

Budget constraints also present a formidable barrier. As noted by participants ***"So I think our issue that we have from a SAPS side is cost, budget, because we have to prioritise for doing tools that will help with reducing crime and investigative crime. So, this is something seen as not a nice to have, but in the priority, list will always be one of the lower things to spend budget on."; "The communications budget is limited...but we need to engage other state departments and see how they can help us."; "So, yes, I say that we haven't really, we always depend on our communications, and they are limited, their budget is limited".***

This financial limitation often forces the SAPS to prioritise basic operational needs over more innovative technological enhancements, making it difficult to implement necessary changes that could improve service delivery.

Beyond the infrastructural and financial issues, resistance to change within the organisation also complicates the digitalisation process. Some personnel exhibit a reluctance to adopt new technologies, often stemming from a preference for traditional proficiency among staff, creating disparities in the ability to effectively utilise new systems. The mindset among certain officers, particularly those of the older generation, tends to be more comfortable with established practices, leading to inertia that can hinder the adoption of innovative solutions.

Considering these challenges, participants emphasised the critical need for strategic investment in technology and comprehensive training programs for SAPS personnel. Empowering operational staff with the skills and knowledge necessary to manage digital systems is essential for effective service delivery in this rapidly changing technological environment. For instance, one participant emphasised that ***"People still need training, some of them, in statement-taking, in how to fill an accident report. That statement-taking is already going to determine your detection rate on your docket or your conviction rate of the suspect to help the investigating*** officer." Another participant said the following ***"But I'm thinking, what are we doing to upskill not just us in this division, but the whole of the police? If you look at people that are working in private companies... they have e-learnings that they do, there's a great need to assist the people out there...we should have e-learnings that they do. They do this from time to time. Yes, and it forms part of their development and part of their performance."***

Furthermore, encouraging organisational culture that embraces innovation, and adaptability will be crucial in overcoming resistance to change and ensuring successful integration of digital tools.

The findings from the research also highlight ongoing issues relating to e-Governance. Participants indicated that challenges such as legacy systems, insufficient funding, and lack of governance between departments remain significant obstacles, participant Two. mentioned that ***"Geographical differences in South Africa impact collaboration across departments. The effectiveness of communication solutions tends to vary significantly between urban and rural areas, restricting the capability to implement uniform systems and collaborate effectively based on local infrastructural limitations."*** While participant Four, ***highlighted that "Collaboration with other departments, such as the Department of Environmental Affairs, is often limited by the need for environmental impact***

assessments when setting up new infrastructure for digital solutions. This regulatory step can delay projects and create friction between departments." Existing literature suggests that South Africa has not yet fully realised its e-Government goals, as there is still a lag in the digital transformation of public services. As noted by Maremi et al. (2022), achieving effective digitalisation in government services requires dedicated budgets and collaborative efforts across departments to overcome these hurdles.

In summary, while the SAPS has made notable progress in its digital integration, enhancing communication and operational efficiency, substantial challenges persist. Addressing infrastructural limitations, securing adequate funding, and cultivating a culture of innovation through targeted training are essential steps to fully leverage the potential benefits of digitalisation. Effectively integrating these tools within SAPS operations is not only vital for improving internal processes but also crucial for building trust and ensuring collaboration between law enforcement and the communities they serve. The current state of digital integration offers both opportunities for enhancements in policing practices and a need for focused strategies to overcome existing barriers.

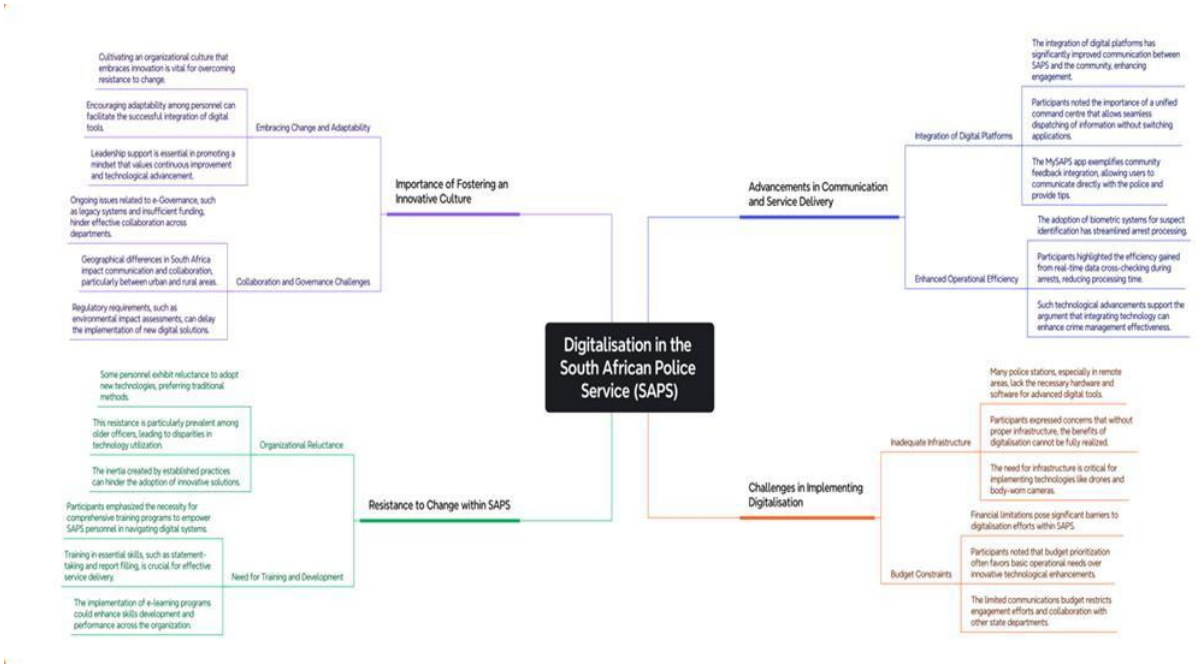


Figure 4.4: The digitalisation of the South African Police Service- illustrative

Source: Researcher's own construct

4.3 Results pertaining to Objective 2: To explore the barriers and opportunities for digitalisation of their processes and functions and how inertia is manifests in the process: This involves identifying the challenges faced by SAPS in adopting digital technologies and potential opportunities that could be leveraged for better efficiency.

The interviews revealed that organisational inertia is a significant barrier to digital transformation. Participants discussed how resistance to change limits the ability for organisations to adapt to new technologies and processes thereby affecting their competitiveness in the digital sphere. As a mitigating factor, two of the participants emphasised the need for leadership to clearly communicate the risks resulting from inaction and the benefits of embracing digital initiatives

Participants further highlighted that how essential ongoing training is for continuous improvement, and employee engagement and empowerment. Participants pointed out that the provision of digital skills training can help build staff confidence and enable them to fully embrace new technologies and processes thereby ensuring overall technological dexterity. Furthermore, the interviews discussed the need for a work environment that supports co-creations and by extension risk-taking and learning from failure. Participants stated that rewarding proactive contributions to digital initiatives can incentivise innovation and help overcome resistance to change.

The findings indicate that addressing organisational inertia is critical for the successful implementation of digital initiatives. By creating a sense of urgency and providing robust training programs, the SAPS can empower its workforce to embrace change.

Additionally, inculcating a culture that supports co-creation and rewards innovation and risk-taking will help mitigate resistance and encourage pro-active engagement with digital transformation/ digitalisation efforts.

The findings reveal insights on how organisational inertia can be a hindrance on organisational operations and by extension how organisations fully digitalise their processes. The emphasis on knowledge empowerment and an environment that supports innovation aligns with the policy recommendations of the National Development Plan set out in 2010, where it is stated that “Investments in human development and digital skills are necessary to build a pipeline of future talent that can embrace this dynamic and increasingly digitised environment. This will require a massive educational overhaul that

addresses basic education backlogs at all levels, from basic to tertiary education. Labour development programs should be developed that leverage innovative public–private interactions such as youth job accelerator initiatives and business processing outsourcing to harness resources and skills where they exist in the country to fill expertise gaps in the state" (Abrahams et al., 2022). In another study (Wilson & Mergel, 2022) argue that structural changes in the digital journey are ineffective without "a well thought out education and training programme [that] ensures buy-in and ownership..." "by public servants at all levels for transformation efforts to take root".

Summary of the findings based on proposition 2 had all of the participants agreeing that organisational inertia significantly impedes digital transformation and, by extension, digitalisation by creating resistance to adapting new technologies and processes, thereby limiting organisations' ability to remain competitive in the rapidly evolving digital environment but found it important that lack of training at operational level was the root cause of this inertia.

Majority of the participants also agreed that inertia can be reduced through proper training and the allaying of fears among the current and older generation workforce thus improving technological dexterity. The results showed that there is a significant positive correlation between technological knowledge empowerment which leads to technological dexterity and operational performance.

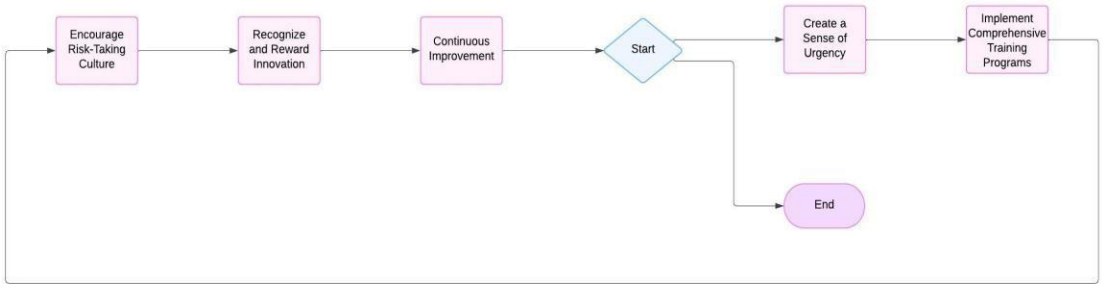


Figure 4.5: Technological empowerment illustrative

Source: Own construct

4.4 Results pertaining to Objective 3: To investigate the perceive potential role of digital technologies in improving SAPS' response to crime

The interviews with several SAPS officials provide a comprehensive overview of the perceived role of digital technologies in enhancing the response to crime by the South

African Police Service (SAPS). While the organisation has made significant strides in adopting tools and platforms, challenges such as budget constraints, skills gaps, and dependency on external stakeholders remain critical barriers to achieving full-scale digital transformation.

Participant Four, who oversees the Component Applications Portfolio Management, highlighted that while the SAPS manages several applications for different division, many processes remain manual. For instance, documentation like leave forms and certain administrative tasks are still paper based. Although the investigate Case Docket Management System (ICDMS) exists, it has not yet fully digitised all aspects of case management due to legislative requirements for physical dockets. Participant three repeated this sentiment, noting that despite advancements in forensic systems- such as DNA sample processing and automated fingerprint identification- there is still reliance on physical evidence for court proceedings. The National Prosecuting Authority (NPA), for example, insists on original documents rather than digital copies, which hinders complete digitalisation. Participant Four explained, ***"if you look at the actual docket, the brown docket, it will be mandated by law or by the NPA to have actually the docket... We also don't want to give out too much because we're also surrounded by a lot of criminals."***

Efforts to collaborate with other departments and external stakeholders are facilitated through platforms like SharePoint Online. Participants six explained that ***"we've got divisions that are utilising that collaboration for sharing content with external stakeholders. We are collaborating with Vodacom, with the Department of Justice and with AGSA."***. This collaboration extends beyond internal operations; Participant One mentioned partnerships with the tourism department to enhance safety information for visitors via the MySAPS app, stating ***"we are also working with the Department of Tourism, where we also give tourists some guidelines to say where's your nearest police station? Should you encounter any challenges, which police station is near you that you can contact?".*** However, direct engagement with the community remains limited. Participant Four pointed out that public awareness of available digital tools, including the My SAPS app, is low, partly due to communication challenges and budget constraints within the organisation's outreach efforts.

Community engagement through digital means faces additional hurdles, particularly regarding technological literacy and access disparities. Participant seven noted that older community members often lack smartphones capable of utilising apps or rely solely on USSD services. Furthermore, geographical limitations, such as rural areas without reliable internet connectivity, pose significant obstacles. Despite these challenges, initiatives to automate processes like statement-taking and queue management at community service centres are underway, though they are still in pilot phases. Participant Four remarked, ***"Some of them are stored in containers. There are mice, there's snakes, there's rain, there's humidity. So, the value of that content, it loses its quality. But if we digitise that, it helps us to have a backup of whatever we have."***

Innovative technological solutions are being explored to enhance operational efficiency. Body-worn cameras, drones, and dashboard cameras are among the tools under consideration to assist police officers in the field. Participant Two emphasised the importance of seamless integration within command centres, where multiple technologies could operate on one platform to improve dispatch times and resource allocation. Predictive policing using AI and machine learning is another area of interest, aiming to analyse historical data and predict crime patterns, thereby enabling initiative-taking deployment of resources. Participant Four share his vision for predictive policing: ***" That tool should be able to tell me that in this area in Randburg, you likely to get someone doing a cash-in-transit in this area around 5 in the afternoon."***

However, implementing these solutions comes with its own set of challenges. Budgetary restrictions are a recurring theme across all interviews. Participant five stated that reduced budgets have forced the SAPS to prioritise essential tools over user-friendly interfaces, impacting adoption rates. Additionally, there is a growing need for change management strategies to address resistance from older employees unfamiliar with new technologies. Training programs, both formal and informal, are seen as crucial steps toward bringing this skills gap. Participant Four highlighted the issue of skills gap: ***"Sometimes you tell a normal investigator about Decode the Deep Dark Web he doesn't even know what you're talking about."***

Looking ahead, the vision for digital transformation within the SAPS includes greater reliance on cloud infrastructure and automation. Participant seven expressed optimism about leveraging artificial intelligence and machine leaning to process large datasets

efficiently. Participant seven also stressed the necessity of balancing costs savings with maintain robust security protocols. Meanwhile, participant one advocated for involving younger generations in development projects, citing their adaptability to modern tools and methodologies, stating that ***"It's to get those young minds, those interns to do the work, to assist us... The little that we can automate, we are trying to automate that."***.

In conclusion, the SAPS recognises the influence and potential of digital technologies in improving crime prevention and community engagement, while progress has been made, addressing financial limitations, skills deficiencies, and stakeholder dependencies will be key to realising this vision. By investing in advance analytics, expanding training opportunities, and forging stronger ties with externa partners, the SAPS aims to create a more responsive, efficient, and technologically advanced policing model tailored to South Africa's unique context.

4.5 Summary of the results/findings

The interview segments provide a valuable glimpse into the difficult and comprehensive challenges faced by the South African law enforcement and justice system in its pursuit of digitalisation and integration. By addressing the geographic disparities, creating inter-agency collaboration, overcoming financial and legal barriers, and prioritising stakeholder engagement, the system can work towards a more efficient, effective, and equitable digital transformation.

Continued efforts in these areas will be crucial for the successful modernisation of the justice system and the delivery of high-quality services to all citizens. The insights gained from the analysis of the interview segments serves as foundation for future strategies aimed at enhancing the digital capabilities of SAPS and related agencies.

This structured integration allows for a comprehensive understanding of the challenges to consider and opportunities in the digitalisation of the South African law enforcement and justice system, while effectively utilising the insights from the interview segment. From the above findings, the study demonstrates that digitalisation positively influences operational performance. Digital technologies enable better interaction between police officers, members of the public, and their colleagues. Fully harnessing the potential of digitalisation, means that organisations must not only fund the implementation of technological advances but also inculcate an environment that is conducive to innovation

and adaptability. The dual approach can aid organisations to address the challenges emanating from digitalisation,

CHAPTER 5. DISCUSSION OF THE RESULTS OR FINDINGS

5.1 Introduction

This chapter presents a detailed discussion of the findings obtained from qualitative interviews conducted with key personnel within the South African Police Service (SAPS). The primary aim is to interpret these findings in relation to the study's three research objectives:

1. To explore the current state of digitalisation within SAP
2. To identify barriers and opportunities for digital transformation and how organisational inertia manifests in this process
3. To investigate the perceive potential role of digital technologies in improving SAPS' response to crime

The chapter begins with a brief overview of the demographic profile of participants, followed by a structured discussion aligned with each research objective. Where applicable, findings are compared and contrasted with existing literature to situate the study within broader academic discourse and highlight its unique contributions.

Each section compares the findings from the interviews with existing literature, highlighting similarities and differences. The chapter concludes with a summary of the key insights and reaffirmation of the conclusions drawn from the research

In the context of digital transformation of organisations, particularly within the South African Police Service (SAPS). The findings from the interviews conducted reveal significant insights in to how digital technologies can be effectively integrated into operations and the challenges faced by organisations in the digital transformation journey. The emphasis on effective integration aligns with the with previous studies on digitalisation.

5.2 Discussion pertaining to objective 1:To explore the current state of digitalisation within SAPS

The findings indicate that while the SAPS has some progress in adopting digital tools such as e-dockets, mobile reporting systems, and basic crime analytics platforms, many operations remain manual and paper-based, particularly in rural areas.

As noted by participant 3: " We still use paper dockets; even if we had digital tools, not every station has internet."

This aligns with Maremi et al. (2022), who argue that digital transformation in e-government services often encounters infrastructural limitations, particularly in developing countries. The SAPS case illustrates this challenge vividly, where technological adoption is uneven across regions and hindered by outdated infrastructure.

Moreover, the concept of digital maturity, as defined by Fitzgerald et al. (2013), helps contextualise SAPS' position along the digital transformation continuum. While there is awareness and interest in modernisation, the lack of strategic alignment and consistent investment places SAPS at an early stage of digital development.

Maremi et al. (2022) posit that Digital Transformation (DT) presents a plethora of solutions to e-Government services because it addresses a significant number of e-Government challenges. Additionally, they emphasise that policies supporting digital transformation have been enacted by the South African government.

The findings interview findings indicate that the SAPS is beginning to adopt digital technology to address potential challenges. The officers highlighted the critical role of digital tools in improving communication and coordination among officers.

Specifically, the use of radio communication systems, such as Tetra and digital mobile radio standards, was identifies as essential for effective command and control. This aligns with existing literature, which demonstrates that digital communication technologies can significantly improve operational efficiency in law enforcement agencies (Smith, 2020; Johnson, 2021).

However, critical factors influencing the success of digitalisation include collaboration with stakeholders and the ongoing development of applications to ensure adaptability to technological changes. Without effective stakeholder engagement, the impact of digitalisation efforts may remain limited.

Stakeholder collaboration, as emphasised in the findings, is central to ensuring that digitalisation initiative meet the needs of the community and improve service delivery (Hoblos et al, 2023). SAPS personnel: recognise this, as evidence by the interviews which revealed a growing awareness of the value of engaging diverse stakeholders.

The literature supports this approach, Mawela et al., (2017) suggest that stakeholders, including community members and service providers, and internals stakeholders, offer diverse insights that are crucial for designing and implementing effective digital solutions. Engaging these groups allows SAPS to better understand specific community challenges and requirements, leading to more effective and tailored services.

Moreover, collaboration builds trust and ownership among stakeholders, enhancing their commitment to digitalisation initiatives. When stakeholders feel included in decision-making processes, they are more likely to actively support and participate in the execution of digital initiatives. This is particularly important for SAPS, as trust and transparency are key to successful public service delivery (Fourie et al., 2024).

The findings also highlight the importance of effective communication strategies in facilitating stakeholder engagement. Clear and accessible communication ensure that stakeholders are informed, can provide feedback, and engage in constructive dialogue. This two-way communication not only helps refine digitalisation efforts but also strengthen relationships between SAPS and the communities they serve.

In addition, stakeholders' collaboration can ensure innovation and problem-solving. The collective intelligence derived from diverse perspectives can help the SAPS address the difficulties of digitalisation and develop innovative solutions. This aligns with the concept of co-creation, where participatory approaches lead to improved public service delivery. The findings suggest that the SAPS is beginning to explore these methods which could result in more effective and context-specific digital solutions.

Participants in the study also discussed the use of incremental development strategies, reflecting the growing adoption of agile methodologies in public sector digitalisation.

According to Tucker (2024), agile approaches allow organisations to adapt to evolving needs and technologies, ensuring that systems remain effective and relevant. Agile methodologies also promote flexibility, collaboration, and iterative improvements (Tucker, 2024).

Additionally, the interviews highlighted the importance of equipping the SAPS personnel with digital skills. As noted in the literature, organisations must empower their staff with competencies and refine existing ones to address the challenges of the Fourth Industrial Revolution (4IR) (Komna & Mpungose, 2024).

However, challenges such as budget constraints and the need for incremental development were identified as barriers to effective digitalisation. These findings are in contrast with studies suggesting that successful digitalisation often requires substantial upfront investment and a clear strategic vision (Brown & Green, 2019). The SAPS's unique financial and operational context compared to global law enforcement agencies, may explain these discrepancies, highlighting the need for tailored approaches to digital transformation with the organisation.

5.3 Discussion pertaining to objective 2: To identify barriers and opportunities for digital transformation and how organisational inertia manifests in this process

Participants identified several key barriers to digitalisation. First, financial constraints such as limited budget allocations which end up restricting the procurement of new systems, were identified. Additionally, participants highlighted skills deficiencies in the force, with offices lacking training in using digital tools effectively. Moreover, issues of poor infrastructure such as connectivity and outdated hardware were cited as stifling and limiting usability. Lastly, organisational inertia or resistance to change was cited as a common phenomenon , particularly among senior citizen officers.

One participant remarked: ***" There is a culture of resistance to change. People are used to doing things the old way, and anything new is seen as extra work- Participant 6***

This observation supports the concept of organisational inertia, as described by Hinings et al. (2018), where entrenched routines and power structures slow down innovation. Additionally, the World Economic Forum (2024) notes that siloed data and fragmented systems in public institutions exacerbated inefficiencies- a challenge also reported by SAPS interviewees.

However, the findings also highlight opportunities for improvement. Stakeholder collaboration was frequently mentioned as a crucial enabler of successful digital transformation. As highlighted by Hoblos et al (2023), inclusive strategies foster

ownership and innovation. Several participants acknowledged the benefits if working with private sector partners to co-create solutions tailored to local policing needs.

For instance, Participant 2 stated:

" Collaboration brings in new ideas and sometime resources we don't have internally."

This reflects the resource based view (RBV), suggesting that leveraging external partnerships and internal capabilities can enhance SAPS' competitive advantage in service delivery.

The interviews revealed that while there is a strong recognition of the need for digitalisation within the SAPS, several obstacles hinder progress, including budgetary constraints, constraints, resistance to change, and infrastructure challenges. Budget cuts from the National Treasury were highlighted as a significant barrier to acquiring and maintaining the technologies needed for digital transformation. This aligns with findings in the literature, which identify financial constraints as a recurring obstacle for public sector organisations attempt to modernise their operations (Williams, 2022).

The transitional phase of the SAPS's digital infrastructure aligns with research by Abdellatef Jerab & Jerab (2024), who highlight that public sector organisations often acknowledge the necessity for digitalisation but face delays in implementation due to budgetary limitations and resistance to change. These constraints continue to organisational inertia, as the persistence of manual process between suggests a disconnect between the recognition of digital needs and the reality of their implementation.

SAPS highlighted the role of limited funding in exacerbating the digital divide, particularly in non-urbanised and underdeveloped areas, where access to infrastructure and services is minimal. This aligns with research literature titled: South Africa- Digital Divide (2024), which points to the underfunding of ICT initiatives in rural regions, thereby restricting advancements in technology adoption. Without significant investments, SAPS and similar organisations struggles to equip their staff with necessary tools and training, a sentiment repeated in the interviews.

Resistance to change emerged as another critical barrier, with the findings and literature both emphasising the importance of comprehensive training programs to overcome inertia and technology adoption. Universitas & Ambon (2024) emphasise that training is essential for building competence and optimising performance in digital environments.

The interviews revealed that SAPS personnel are aware of this need, citing the importance of continuous training to enable effective use of new digital tools and systems.

Globally, governments are facing similar pressures to improve efficiency and service delivery while overcoming resistance to change. Andersen et al., (nd) note that private sector organisations serve as benchmarks for leveraging technology to achieve operational efficiency. However, governments often lag due to entrenched practices and a lack of cohesive strategies. This is evident in SAPS's reliance on manual processes, reflecting a broader trend of inertia in public sector organisations attempting digital transformation.

The challenges of coordination and institutional dysfunction with the South Africa Public sector were also noted. The Public Service Commission's 2022 roundtable report identified issues within SITA, the agency tasked with ensuring that the SAPS's digital journey is successful, and the issues identified were inadequate capacity, slow technology adoption, and a funding model misaligned with government objectives. The systemic issues contribute to inefficiencies and a fragmented approach to digitalisation across departments, as expressed by SAPS personnel.

Connectivity challenges, particularly in rural areas, represent a critical barrier to the SAPS's digitalisation efforts. The findings revealed that inadequate infrastructure in remote locations prevents the seamless implementation of digital tools. This aligns with Aruleba & Jere (2022), who highlight the digital isolation experience in rural areas due to limited access to ICT infrastructure and services. The digital divide remains a pressing issue, reflecting a lack of coordinated investment in connectivity solutions.

The limitations of existing infrastructure within the SAPS reflect broader trends in public sector organisations struggling to modernise their technological frameworks. The world Economic Forum (2024) posits that public sector data is often siloed in legacy systems, hindering the ability to derive actionable insights. Governments must embrace modern edge- to-cloud platform that enable them to shift from data capture to value extraction, better serving citizens in the process. For the SAPS, a comprehensive assessment of current infrastructure is essential to identify gaps and inform strategic planning for digital transformation.

Despite these barriers, opportunities exist to overcome inertia and drive digitalisation. Collaboration among departments and with external stakeholders emerged as a key theme

in the findings. Thompson (2020) emphasises the role of inter-agency collaboration in enhancing the effectiveness of digital initiatives. The interviews suggested that the SAPS recognises the potential of such collaborations to allocate resources more effectively and streamline implementation.

The findings suggest that while the SAPS is making incremental progress in its digitalisation journey, entrenched practices, fragmented strategies, and resistance to change continue to impede its efforts. Addressing these barriers requires a unified approach to digitalisation, focused investment in infrastructure and training, and creating a culture of collaboration both internally and externally.

5.4 Discussion relating to objective 3: To investigate the perceive potential role of digital technologies in improving SAPS' response to crime

While this objective was touched upon in earlier sections, it deserves dedicated attention due to its significance in understanding the practical implications of digitalisation of law enforcement effectiveness.

Interview findings suggest that digital technologies hold substantial promise in enhancing SAPS' ability to respond to crime. Specifically, participants highlighted the following potential benefits:

Real-time data access: Enables quicker decision-making and faster deployment of resources.

Predictive analytics: Helos anticipate criminal activity and allocate patrols accordingly.

Digital communication tools: Improve coordination between units and community engagement.

Participant 5 shared:

"If we could access live crime stats, our response would be faster."

These insights align with Albertus (2019), who argues that predictive policing tools, when used ethically and transparently, can significantly improve crime prevention strategies.

However, participants also cautioned that technology alone cannot solve systemic issues, As noted by Van der Giessen and Bayerl (2022), successful implementation requires adequate training, leadership buy-in , and institutional readiness. Without these elements, digital tools may remain underutilised or misapplied.

The findings from the study and relevant literature emphasise the critical role that digital technologies could play in transforming the crime response mechanisms of the South Africa Police Service (SAPS). As crime becomes rampant and sophisticated, the SAPS faces the dual challenges of adapting to these changes while addressing internal inefficiencies that hinder effective service delivery.

The integration of digital tools such as Geographic Information Systems (GIS), predictive policing algorithms, and real-time data sharing platforms is highlighted to improve response times and decision-making. Digital tools provide officers with immediate access to actionable intelligence, enabling more targeted and efficient deployment of resources. This aligns with global finings such as those by Gundhus et al. (2022), which indicates that digital systems improve operational efficiency by standardising processes and reducing manual errors.

One of the main inefficiency pain points identified in SAPS is the manual handling of case files which often leads to inefficiencies, misplaces evidence, and delays in prosecution. The persistence of manual methods such as paper-based evidence collection and face-to-face briefings, has been identified as a critical barrier to efficient crime response. Digital case management systems have the potential to streamline evidence tracking, ensure proper documentation, and reduce the risk of corruption. For instance, adopting tools for electronic docket management can mitigate the challenges posed by traditional manual processes, as highlighted by Albertus (2019).

Other digital technologies, such as mobile crime reporting applications such as the MySAPS app and online community engagement platforms, can bridge the gap between the SAPS and the communities it serves. This not only enhances public trust but also encourages citizens to actively participate in crime prevention initiatives. The report notes that community-driven platforms can enable quicker reporting of crimes and promote a sense of collective responsibility for public safety.

On the other hand, the use of predictive analytics can play an influential role in SAPS' ability to anticipate and prevent crime. By analysing historical crime data, digital tools can identify high-risk arears and times, allowing law enforcement to allocate resources proactively. This approach has been successfully implemented in regions like Indonesia,

where Supriyanto et al. (2021) documented the use of AI and big data analytics to improve resource management and crime prevention strategies.

While the potential benefits of digital technologies are substantial, the findings also show significant challenges. Budgetary constraints, resistance to change, and limited digital literacy among personnel are major barriers to effective implementation. Addressing these challenges requires focused investment in training programs, collaboration with private sector partners, and the development of a unified digital strategy for SAPS, as emphasised by the South African Government (2024).

5.5 Discussion on how the findings lead to the Integration organisational inertia and -based- perspective

Building on the findings, this study contributes to the integration of two key theoretical perspectives: organisational inertia and resource- based view (RBV).

From an inertia perspective, the SAPS appears to be caught in a cycle of resistance to change, driven by bureaucratic processes, fear of disruption, and limited capacity-building efforts. These factors collective create a barrier to innovation, despite the existence of viable digital solutions.

From a resource-based perspective, however, the study reveals that SAPS possesses valuable intangible resources, such as institutional knowledge, community trust, and strategic partnerships, that could serve as foundations for sustainable digital transformation.

By reframing digitalisation not merely as a technical upgrade but as a strategic capability, SAPS can better leverage its internal strengths and external collaborations to overcome inertia and drive meaningful reform.

Armstrong and Lee (2021), report that proponents of the resource-based view of strategy argue that internal resources such as differentiating assets (e.g. infrastructure and financial resources), and capabilities (e.g. adeptness and skills) are the drivers of strategy-the organisation must thrive to gain competitive edge by efficiently utilising these assets.

While organisational inertia highlighted structural and cultural resistance to change, the resource-based theory provided a complementary perspective by emphasising the need for strategic resource alignment to overcome these barriers. Together, these theories crystalise the dual challenges of addressing resistance and optimising resource

deployment in SAPS's digitalisation journey. Moving forward, the resource-based theory emphasises the need for SAPS to prioritise the development of internal capabilities, including technological proficiency, strategic leadership, and adaptive organisational culture.

Addressing resource gaps will be critical in achieving sustainable digital transformation. Ultimately this study highlights the value of adopting a flexible theoretical approach, allowing emerging data to refine and improve the initial framework. By integrating insights from resource-based theory, this research contributes a detailed understanding of the digitalisation challenges and opportune ties within the SAPS.

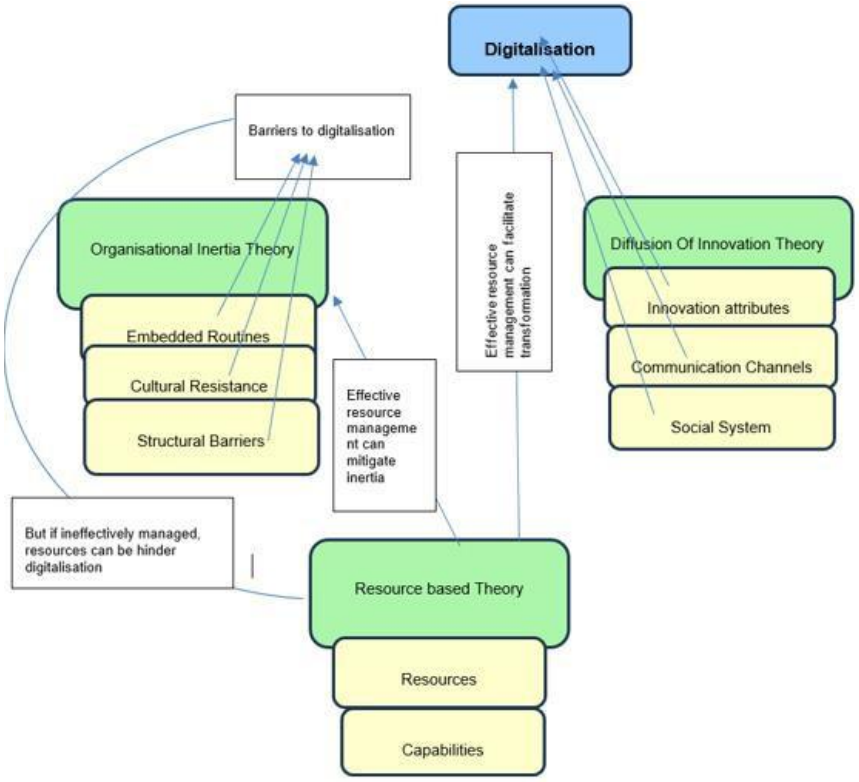


Figure 5.1: Expanded conceptual framework (post data analysis)

Source: Own construct

5.6 Conclusion

The analysis conducted on the digitalisation of the South African Police Service (SAPS) reveals that the institution primarily falls within the Digital Beginners' quadrant of the framework proposed by Fitzgerald et al. (2013). The categorisation of SAPS as a Digital beginner is supported by the observation of limited digital integration where the SAPS

still relies on traditional manual processes, significantly hindering its operational effectiveness. The absence of robust IT infrastructure and the prevalence of outdated systems have led to fragmented data management and inefficient workflows emphasising the urgency for substantial improvements in their capabilities. Additionally, inadequate training and resources continue to present challenges for the SAPS personnel and as a result, the SAPS workforce struggles to leverage digital tools effectively, reinforcing the reliance on manual operations. Insufficient training of SAPS personnel has led to organisation inertia that impedes the SAPS's ability to adapt to technological advancements.

The resistance to change stems from the workforce resorting to established routines and a culture that may not prioritise innovation, ultimately, this has stifled the efforts a comprehensive digital operation model within the SAPS. Although the SAPS is currently positioned as digital beginners, the research identifies substantial opportunities for progression.

By prioritising the development of an all-encompassing digital strategy, investing in training, allocating monetary resources, and creating a culture of innovation, the SAPS can transition towards the digital fashionista level. This evolution is essential for enhancing service delivery, improving community engagement, and effectively combating crime.

This might mean the that the SAPS must leverage artificial intelligence for predictive policing, advanced data analytics for crime trend analysis, or sophisticated digital communication platforms to interact effectively with the community.

Alternatively, if the SAPS identifies more with the digital category, it will actively integrate several digital tools to improve its operations, such as enhancing data management systems, utilising online portals for community reporting, or adopting integrated case management technologies. Either way, while the SAPS can become a leader in digital transformation within its own framework, its primary focus remains on fulfilling its mandate to ensure public safety and effective law enforcement.

In summary, this chapter has discussed the findings in relations to the research objectives and existing literature. It confirms that while digitalisation is widely recognised as essential for enhancing operational efficiency, significant obstacles inducing financial constraints, organisational inertia, and limited digital literacy remain.

The chapter, also expands on how digital technologies can potentially transform SAPS' crime-fighting capabilities, provided that implementation is supported by strategic planning, stakeholder collaboration, and capacity-building initiatives.

Finaly, by integrating the concepts of organisational inertia and the resource-based view, this study offers a more nuanced understanding of the dynamics influencing digital transformation in law enforcement. Future chapters will build on these insights to develop actionable recommendations for policymakers and practitioners.

CHAPTER 6. CONCLUSIONS & RECOMMENDATIONS

6.1 Introduction

This chapter is dedicated to synthesising the findings of the research on the digitalisation of the South African Police Service (SAPS) and integrating them with the original research questions and objectives outlined in chapter 1. The structure of this chapter is designed to systematically address each research objective in turn, providing a comprehensive analysis of how the findings relate to the propositions and hypotheses established earlier in the study.

Additionally, the chapter presents the key conclusions drawn from the findings of the study, along with practical recommendations aimed at addressing the barriers identified in the digitalisation of operations within South African Police Service (SAPS). It also discusses theoretical contributions, highlights study limitations, and suggests areas for future research.

The chapter begins with a detailed discussion of the conclusions drawn from the research, highlighting key insights and their implications for the digital transformation of SAPS. Following this, specific recommendations are presented for many stakeholders, including SAPS leadership, and government officials, aimed at enhancing effectiveness of digital initiatives in law enforcement.

Finally, the chapter concludes with suggestions for further research, identifying potential areas of inquiry that can expand upon the findings of this study and contribute to the broader understanding of digitalisation in policing. By structuring the chapter in this manner, the aim is to provide a clear and coherent narrative that not only summarises the research outcomes but also offers practical guidance for future actions and studies in the field.

The chapter is structure as follows:

- Summary of key findings
- Theoretical contributions
- Practical recommendations
- Study limitation

- Areas for future research

Summary of Key findings

6.2 Conclusions regarding objective 1: Addressing research objective 1: Exploring the current state of Digitalisation within the South African police Service

The exploration of the digitalisation of the South African Police Service (SAPS) indicates that there exists significant advancements and challenges that currently influence the operational environment of enforcement in the country. Using qualitative interviews with key stakeholders within the SAPS, including Brigadiers and Major Generals, several findings emerged collectively addressing the first research objective.

6.3 Conclusions regarding research objective 2: Exploring the Barriers and Opportunities and how organisational inertia manifests in the process

The exploration of the barriers and opportunities relating to the digitalisation of processes and functions within the South African Police Service (SAPS) reveals a detailed confluence of factors that influence the pace and effectiveness of digital transformation. Through qualitative interviews with key personnel, including one Major- General and Brigadiers who are also technology managers, several critical insights emerged that address the second research objective.

Infrastructural limitations are a significant barrier identified. Participants highlighted that many police stations, especially those located in remote areas, are not equipped with the necessary hardware and software to support advanced digital tools. This aligns with existing literature that points to infrastructural deficits as a common challenge in the digitalisation of public services and is often exacerbated by lack of funding.

Additionally, resistance to change or inertia arising from embedded practices within the organisation was evident and leads to an ethical dilemma, particularly among personnel who are accustomed to traditional methods of policing. Some officers, particularly those of the older generation, seem averse to adopting new technologies, fearing that they may complicate their workflows (Digitalization: A Game Changer for Local Governments & Communities Enhancing Capacities to Deploy Transformative Solutions, 2023).

One participant remarked:

***"There is a culture of resistance to change. People are used to doing things the old way, and anything new is seen as extra work."*- Participant 6**

This resistance is a well recorded phenomenon in organisational change literature, where established practices can hinder the uptake of innovative solutions. However, it must be noted that there are still opportunities for digitalisation. Firstly, the potential for improved data management driven by digitalisation was a common theme in the interviews. The OECD comparative study, (2016), reports that digital tools have the potential to facilitate better data collection, analysis, and dissemination**,** thereby influencing more informed decision-making and collaboration**.**

This finding supports previous research that highlights the role of data analytics in modern policing such as identifying offenders, disabling criminal networks and protecting society's most vulnerable (Centre for Data and Analytics in Policing (CDAP), 2024).

Secondly, digitalisation presents opportunities for enhance collaboration for the SAPS, with both internal and external stakeholders (South African Government, 2024). The convergence and integration of communication platforms can help forge better coordination during operations.

This reflects the literature's emphasis on the importance of collaborative operational efficiencies. Lastly, the findings indicate that the significant barriers to the digitalisation of the SAPS co-exist with substantial opportunities that can be leveraged. By addressing infrastructural limitations and overcoming resistance to change are critical for unlocking the potential benefits of digitalisation. This research contributes to the understanding of how inertia manifests itself in the digitalisation process, particularly in a law enforcement context. These findings support the concept of organisational inertia, where entrenched routines and power structures slow down innovation (Hinings et al., 2018). Additionally, the World Economic Forum 92024) notes that siloed and fragmented systems in public institutions exacerbate inefficiencies- a challenged also reported by SAPS interviewees.

Initial order deductive concepts (from literature)	Second order inductive themes (from interviews)	Second order concepts
Embedded organisational habits The organisational inertia antecedent of lack of change leadership capabilities	Political support Hierarchical decision making (SITA) Standard process	Organisational culture
Risk aversion Procurement red tape	Vendor capture	Lack of awareness

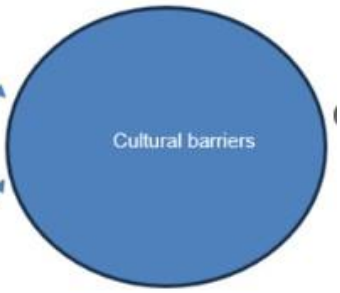


Figure 6.1: Organisational Inertia Illustrative

Source: Own construction

6.3 Conclusions regarding research objective 3: : To investigate the perceived potential role of digital technologies in improving SAPS' response to crime

Digital technologies were widely seen as having the potential to significantly improve operational efficiency, real-time decision-making, and community engagement. Participants expressed optimism about tools like predictive policing software, digital communication platforms and mobile reporting apps.

Through qualitative interviews with senior SAPS officials, in the form of Brigadiers technology managers, several insights emerged that address this research objective.

Participants concurred with one another when they asserted that digital technologies could encourage more proactive crime detection and prevention strategies. This assertion aligns with existing literature that emphasises the role of data analytics in modern policing. Enabling law enforcement agencies to anticipate and respond to criminal activities more promptly (Centre for Data and Analytics in Policing (CDAP*)*, 2024). On the other hand, the integration of digital communication platforms was identified as an important factor in improving response times to incidents.

Participant 5 stated:

"If we could access live crime stats, our response would be faster."

This finding affirms previous research that emphasise the importance of effective communication in emergency response scenarios. Digital technologies also create opportunities for enhanced engagement with the community using digital mediums such as social media (Emergency Communications: The Power of Social Media, 2024); (Baker Freeman, 2024). Participants stated that the potential for mobile applications and social media platforms to facilitate better communication between SAPS and the public.

This reflects the literature's focus on community policing and the role of technology in engendering public trust and collaboration. Moreover, the potential for digitalisation to streamline processes including administrative processes emerged as another key theme. By eliminating paperwork and automating routine tasks, the SAPS personnel can focus more on frontline duties. This aligns with other studies that highlight the efficiency and operational efficacy derived by public sector organisations though digital transformation. Garcia (2023) argues that by deploying digital technologies, governments can optimise operations, streamline costs, and offer an enhance user experience to citizens.

6.4 Theoretical contributions

This study contributes to the integration of tow key theoretical perspectives, namely organisational inertia, the theory that explains how institutions culture and resistance to change affect the pace and success of digital transformation. The second theoretical perspective is the Resource- Based View (RBV), which highlights how SAP can leverage internal strengths, such as institutional knowledge and community trust, alongside external partnerships to drive sustainable change.

By linking these theories to empirical findings, the study enhances understanding of how digital transformation unfolds in complex, bureaucratic environments like law enforcement.

6.5 Recommendations

Before presenting the practical recommendations, it is important to restate the central problem address in this study to provide context and justification for the proposed actions.

Brief Restatement of the Problem Statement

As established throughout this research, the South African Police Service (SAPS) faces significant challenges in its efforts to digitalise operations. Despite growing recognition of the need for technological integration, progress remains slow due to barriers such as limited funding, outdated infrastructure, skills deficiencies, and organisational inertia. These systemic issues hinder SAPS' ability to respond effectively to rising crime rates and prevent the full benefits of digital transformation from being realised.

Based on the discoveries made throughout the research, the following recommendations are proposed for the varied stakeholders involved in the digital transformation of the South African Police Service (SAPS).

The SAPS Technological Management Services executives and leadership as well as government must Implement structured and continuous training programs that will ensure the provision of ongoing digital literacy and tool-specific training for frontline officers. Mentorship and peer learning must also be included to reinforce skills, and performance improvements must tracked post the training.

This is essential because skills deficiency was recurring theme in interviews, with many officers expressing confusion or reluctance to adopt new systems.

Additionally, s part of the recommendations stemming from this study, it is advised that the South African Police Service (SAPS) prioritise investment in modern digital infrastructure. This includes upgrading ICT infrastructure, particularly in rural and underserved areas, ensuring reliable internet connectivity, and providing modern hardware across all police stations. Dedicated funding should also be allocated for ongoing system maintenance and upgrades. As highlighted by many participants (See Chapter 4) , outdated infrastructure remains a significant barrier to digitalisation efforts.

Furthermore, SAPS should develop a comprehensive organisational change management strategy. This entails establishing a dedicated digital transformation task force with the organisation, engaging officers at all levels through workshops, town halls, and pilot programs, and consistently communicating the benefits of digital tools to reduce

resistance and foster acceptance. Organisational disinterest and inertia were identified as critical challenges; thus , a proactive change strategy is essential for shifting mindsets and enabling successful adoption.

Another key recommendation is to strengthen collaboration with private sector and academic partners. Partnering with technology companies can facilitate the co-design of solutions that are tailored to local policing needs, while collaboration with universities and research institutions can ensure ongoing evaluation and improvement.

Several participants acknowledged that external collaboration introduces fresh perspectives and resources, which are vital to the success of digital initiatives (Hoblos et al., 2023).

Lastly, it is recommended that SAPS adopt incremental implementation strategies. New technologies must be piloted in selected units before a full-scale rollout , with continuous evaluation and process refinement based on user feedback. Participant overwhelmingly supported incremental approaches, noting that they are more manageable and less disruptive than broad , large-scale overhauls (Mawela et al., 2017).

6.6 Suggestions for further research

Further research is encouraged, and it must assess the impact and effectiveness of digital tools on crime rates and police efficiency. The assessment must include longitudinal studies that track changes over time as new technologies are implemented.

The second area of focus for further research must be community perception of digital policing and such research could explore how community members perceive the use of digital technologies in policing, thus ensuring best practices and community engagement through understanding public sentiment.

Comparative studies can also be undertaken to compare the SAPS' technology deployment with the successful digital transformation implementation by other law enforcement agencies. This is because such comparative research could provide valuable insights and best practices that can be adapted to the South African context.

On the other hand, research in relation to training and capacity building could be undertaken to investigate the effectiveness of training programs for police personnel on new technologies and possibly reveal gaps in knowledge and skills that need to be

addressed to ensure successful implementation. Lastly, further exploration of the ethical implications of digital policing, including issues related to surveillance, data privacy, and civil liberties is essential to ensure that technological advancements do not compromise community rights.

By addressing these areas future research can continue to build in the findings of this study and contribute to a contextualised understanding of the role of digital transformation in law enforcement, ultimately leading to improved public safety outcomes.

These recommendations and suggestions for further research highlight the ongoing need for collaboration and innovation in the field of law enforcement as it adapts to the challenges of the digital age.

In conclusion, although digitalisation of the South African Police Service is characterised by challenges, the benefits that it presents surpass the challenges and justify government's investment in it. Digitalisation can enhance police operational efficiency, but to fully embrace digitalisation, the SAPS must implement a strategic and comprehensive approach that encompasses vision to destination, ambitious goals, and digitalisation targets; mobilisation and alignment of the interests and actions of the different actors and sector is also important for digitalisation initiatives.

Additionally, government must enact policy and regulatory frameworks that not only makes it conducive for digitalisation to take place but also ensure that the barriers and challenges faced by the relevant actors are addressed. In the same vein, the legal and ethical implications such as data protection, environmental impact, privacy and security must be considered.

Moreover, government must plough investment into the upgrade of the infrastructure and technology such as platforms that are important for digitalisation. Interoperability and compatibility and robustness of systems and devices must also be ensured. Furthermore, government and the SAPS must develop and bolster the skills and capabilities of personnel for optimal use and benefit from digitalisation, training on digital literacy and innovation must be imparted. Lastly, the SAPS must engage and involve the relevant stakeholders in implementing digitalisation initiatives.

Overall, digitalisation offers the SAPS the opportunity to transition to state of improved operations and ultimately customer service and these can be attained through strategic

planning, adequate funding, knowledge empowerment, stakeholder collaboration, and continued innovation and improvement. By incorporating the above recommendations, the SAPS will be on course to harness the full potential of digitalisation.

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APPENDIX A



Participation Information Sheet (PIS)

Dear Sir/ Madam

My name is Wandile Nkosi, and I am a student at the Wits Business School (WBS). I am currently conducting research under the supervision of Dr. Ayanda Magida about **the digitalisation of the South African Police Service operations** to combat crime, enhance community engagement, and close the performance gap.

I hope this research will enhance our understanding of how digital technologies can aid policing operations and ultimately help with crime. I would like to invite you to participate in my study. To explain to you what your participation in my study will involve, I have formulated questions that I will try to fully answer so that you can make an informed decision about whether to participate. If you have any additional questions that you feel are not addressed or explained in this information sheet, please do not hesitate to ask me for more information.

Once you have read and understand all the information contained in this sheet and are willing to participate, please complete and sign the consent form below.

What will I be doing if I participate in your study?

I would like to invite you to participate in this research because you are a manager of a retail firm. If you decide to participate in this research, I will ask you a few interview questions on the role of digital technologies and policing operations. The interview should take approximately 8 – 10 minutes to conduct and complete and requires your perspectives. There are no incorrect answers as it is based solely on your views as a manager in the police force. You can decide whether to participate in this research. If you decide to participate, you can choose to withdraw at any time.

Are there any risks/ or discomforts involved in participating in this study?

Whether or not you decide to participate in this research, there will be no negative impact on you. There are no direct risks or benefits to you if you participate in this study. If you find at any stage that you are not comfortable with the line of questioning, you may withdraw or refrain from participating.

Do I have to participate in the study?

Your inclusion in this study is purely voluntary, If you do not wish to participate in this study, you have every right not to do so; Even if you agree to participate in this study, you may withdraw at any time without having to explain your decision.

Will my identity be protected?

I promise to protect your identity. I will not use your name in any research summaries to come out of this research and I will also make sure that any other details are disguised so that nobody can identify you. No other parties, including anybody at WBS, will have access to your interview information. I might to use quotes when I discuss the findings of the research, but I will not use any recognisable information in these quotes that can be linked to you.

What will happen to the information that participants provide?

Once I have finished accumulating all the answers to the interviews, I will write summaries to be included in my research report, which is required to complete my Master of Management in Digital Business degree. This research study will be written as a research report, available on the university library website. If you are interested in the study's outcome, please send me a summary of the research.

What happens if I have more questions about the study?

Please feel free to contact me or my supervisor should you have any questions or concerns about this research, or if there is anything you need to know before you decide whether to participate. You should not agree to participate unless you are completely comfortable with the procedures followed.

If you have any questions during or after this research study, feel free to contact me or my supervisor at the details listed below. If you have any concerns or complaints about the ethical procedures of this research study, you are welcome to contact the University Human Research Ethics Committee (Non-Medical) by telephone at +27(0) 11 717 1408 or email hrecnon-medical@wits.ac.za.

Yours Sincerely

Wandile Nkosi

Research study contact details

The Researcher: Wandile Nkosi; 2530385@students.wits.ac.za; 076 288 5466.

The Supervisor: Ayanda Magida; 011 717 3953 Ayanda.magida@wits.ac.za

APPENDIX B (PARTICIPANT CONSENT FORM)

PARTICIPANT AGREEMENT/ CONSENT FORM

Title of project: Digitalising Operations of The South African Police Service

Name of researcher: Wandile Nkosi, ... , agree to participate in this research project.

I agree to the following:

(Please circle the relevant options below)

The research study was explained to me. I understand what this study is about, , YES NO

I understand that I can volunteer to take part in the study, YES NO

I agree that the interview/focus group/other activity may be audio recorded, YES NO

I agree that direct quotations from my interview/focus group/other activity may be used by the researcher in their research report/ manuscript/book chapter,
YES NO

I agree that my participation will remain anonymous (my name or other identifying data will not be used by the researcher in their research report/manuscript/book chapter),
YES NO

I agree that other researchers may use the information I provide in my interview/focus group/other activity (depending on their own ethics clearance being obtained) but my name and any personal information will not be used or passed on,
YES NO

….....(signature)

….....(name of participant)

….....(date)

….....(signature)

….....(name of researcher/person seeking consent)

….....(date)

APPENDIX C (Research Instrument: Interview Guide)

I, Wandile Nkosi, a master's student at The Wits Business School of the University of the Witwatersrand, invite you to participate in a research study on the Digitalising operations of the South African Police Service. Through your participation, I hope to understand if and in what way, the digitalisation of the operations of the South African Police Service can help the organisation to close performance gaps and enhance community/ customer satisfaction.

Please remember, “Your participation in this project is voluntary. You may refuse to participate or withdraw from the study at any time with no negative consequences.

Anonymity of records identifying you as a participant will be maintained.

This Interview should take approximately 2 – 5 minutes to complete

Section 1: General Information

1. What is your current role within the SAPS?

2. How long have you been working with the SAPS?

3. What department or unit do you belong to?

Section 2: Current State of Digital Infrastructure

4. How would you describe the current state of digital infrastructure in the SAPS?

    - What digital tools and platforms are currently used within your department?

Section 3: Networking and Collaboration

5. How often do you collaborate with other departments or external stakeholders using digital platforms?

- What are the primary digital platforms used for collaboration and networking?

6. How effective are these platforms in facilitating collaboration and communication?

Section 4: Co-Creation with Stakeholders

7. In your experience, how important is co-creation with stakeholders and consumers for implementing circular business models?

    - What digital tools or platforms do you use to co-create with stakeholders and consumers?

Section 5: Community Engagement

8. How does digitalisation help you reach and communicate with the community?

9. What methods do you use for two-way communication with the community?

    - What challenges do you face in engaging the community through digital means?

Section 6: Technological Solutions and Innovation

10. What innovative technological solutions are you using or considering to enhance your department's digitalisation?

11. How effective are these solutions in addressing the challenges you face?

12. What additional technological solutions would you like to see implemented to support your work?

Section 7: Open-Ended Questions

13. In your opinion, what are the biggest opportunities digitalisation brings to the SAPS?

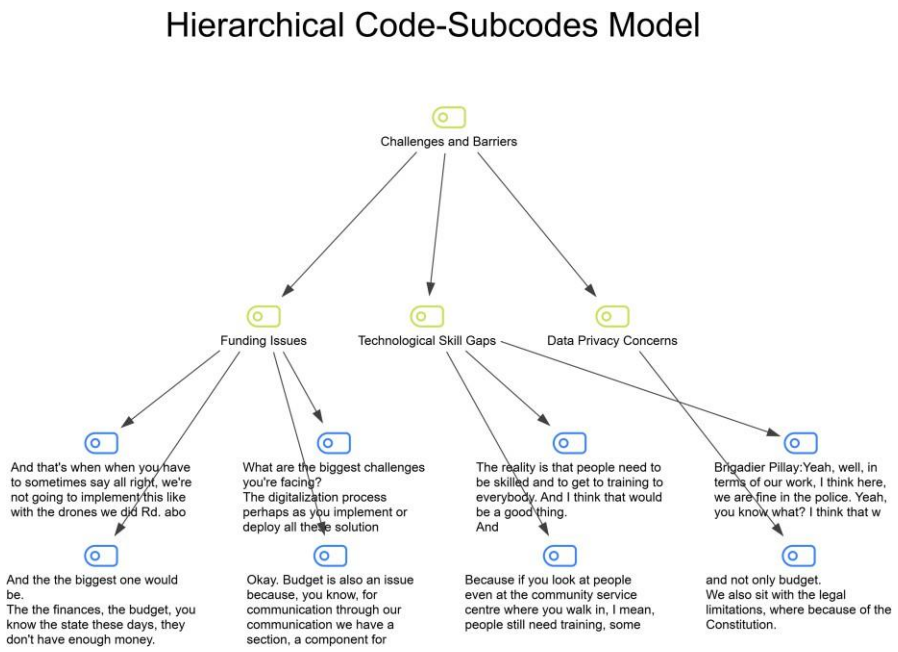
14. What are the biggest challenges you face in the digitalisation process?

How do you envision the role of digitalisation evolving in the future for the SAPS?

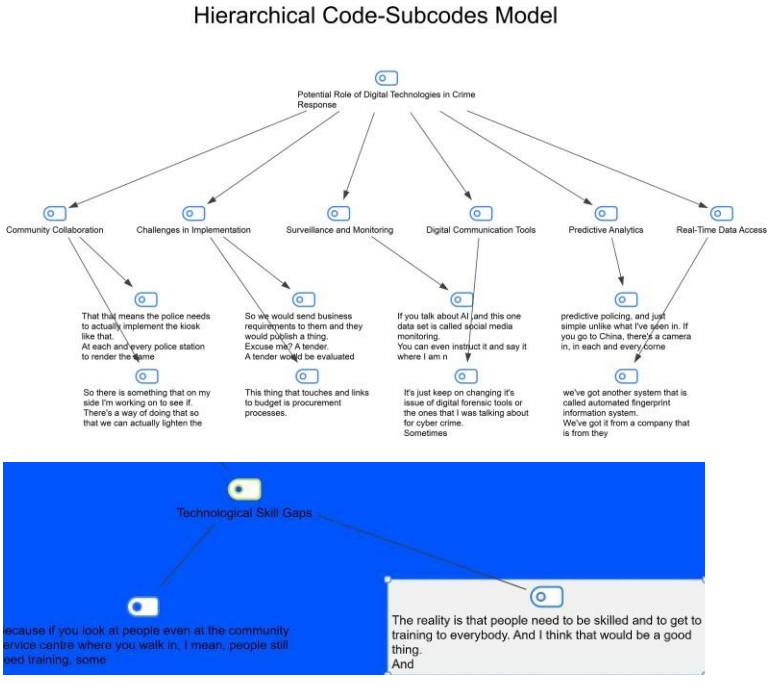
APPENDIX D

Concept Maps

Hierarchical code-subcode model- challenges and barriers



Hierarchical code-sub-code model- Potential role of digital technologies in crime response



APPENDIX E

Graduate School of Business Administration
University of the Witwatersrand, Johannesburg

Wits Business School Ethics Committee
Constituted under the University Human Research Ethics Committee (Non-Medical)

Ethics Clearance Certificate

Ethics protocol number: WBS/DB2530385/415
This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).

Project title	**Digital transformation in the public sector: a case study of the South African police service**
Investigator / Researcher	**Mr Wandile Nkosi**
Nature of Project	**MM (Digital Business)**
Decision of the Committee	**Approved, provided stakeholders and participants are guaranteed confidentialty.**
Issue Date of Certificate	**02/09/2024**
Expiry date	**Date of submission of the project / research report**
Chairperson	**Dr Ayanda Magida** **+27 11 717 3953** **ayanda.magida@wits.ac.za**

Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Ethics Committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

Signature

30/092024
Date:

APPENDIX F

South African Police Service | Suid-Afrikaanse Polisiediens

Privaatsak Private Bag X94	Pretoria 0001	Faks No. Fax No.	(012) 432 7886

Your reference/U verwysing:

My reference/My verwysing: 3/34/2 (2024/2025 – 154)

THE HEAD: RESEARCH
SOUTH AFRICAN POLICE SERVICE
PRETORIA
0001

Enquiries/Navrae: **Col (Dr) Smit**
W/O Thenga
Tel: **(012) 432 7866**
Email: ThengaS@saps.gov.za

W Nkosi
UNIVERSITY OF WITWATERSRAND

RE: PERMISSION TO CONDUCT RESEARCH IN THE SOUTH AFRICAN POLICE SERVICE: UNIVERSITY OF WITWATERSRAND: MASTERS DEGREE: DIGITAL TRANSFORMATION IN THE PUBLIC SECTOR: DIGITALISING OPERATIONS OF THE SOUTH AFRICAN POLICE SERVICE: RESEARCHER: W NKOSI

1. The above subject matter refers.

2. You are hereby granted approval for your research study on the topic mentioned above in terms of National Instruction 4 of 2022.

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

   The Divisional Commissioner: Technology management Services:

   - **Contact Person:** Brigadier Gouws
   - **Contact Details:** 012 432 7119/ 082 779 8743
   - **Email Address:** gouwsb@saps.gov.za

4. Kindly adhere to paragraph 8 of our attached letter signed on **2024-10-14** with the reference number above.

BRIGADIER
THE ACTING HEAD: RESEARCH
DR GJ SCHWARTZ

Date: 2024 11 23

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