

A Management Framework for the Public Service of South Africa: Lessons from Canada

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DECLARATION

Herewith I, Adriana Marieke van Zyl, declare that this is my own original work. All sources have been cited and referenced. The thesis entitled *A Management Framework for the Public Service of South Africa: Lessons from Canada* has not been submitted to any other institution. This thesis has been prepared in compliance with the requirements as set out by North-West University.



A M van Zyl

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Ephesians 3: 20 KJV

*Now unto him that is able to do exceeding abundantly above all that we ask or think,
according to the power that worketh in us, Unto him be glory in the church by Christ Jesus
throughout all ages, world without end.*

Amen.

ABSTRACT

Management within the Public Service of South Africa involves the disciplines of business management, financial management, governance, people management and skills management. Decisions are made on a daily basis based on the relationship between these factors to a greater or lesser extent. These decisions influence the lives of all South Africans, regardless of taxpayer status.

The main objective of this study is to develop a framework for effective management in the Public Service of South Africa. The research objectives attempted to identify the factors and sub-factors that contribute most significantly towards effective management within the Public Service of South Africa, to explore the difference of the perceptions between those in policy (DHET) versus those in practice (HEIs) and to identify a few lessons on effective management that could be learned from the Public Service of Canada.

This study employed an explanatory sequential mixed-methods approach to gather and analyse primary and secondary data from the Public Service of South Africa and Canada. Phase 1 consisted of a questionnaire based on relevant literature related to research objectives 1 and 2. In total, 151 respondents from the DHET and HEIs completed the questionnaire. Phase 2 consisted of the highlights of the 2019 PSES and perspectives from three purposefully selected experts in the Public Service of Canada to answer research objective 3.

The data analysis included statistical analysis for Phase 1 and thematic analysis for Phase 2. The quantitative and qualitative findings were combined for interpretation and to develop a framework for effective management within the Public Service of South Africa. This management framework is considered the significant original contribution to knowledge. Recommendations for future research were made. This study also aimed to contribute to the global discussion on effective management, and more specifically within the service domain.

Keywords:

Management, Public Service, critical success factors, factor analysis, Higher Education, South Africa, Canada

OPSOMMING

Bestuur in die Staatsdiens van Suid-Afrika sluit die dissiplines ondernemingsbestuur, finansiële bestuur, korporatiewe bestuur, mensebestuur en vaardigheidsbestuur in. Besluite word daaglik in 'n mindere of meerdere mate op grond van die verhouding tussen hierdie faktore geneem. Hierdie besluite beïnvloed alle Suid-Afrikaners se lewens, ongeag belastingbetalerstatus.

Die hoofdoelwit van hierdie studie is om 'n raamwerk vir doeltreffende bestuur in die Staatsdiens van Suid-Afrika te ontwikkel. Die navorsingsdoelwitte het gepoog om die faktore en sub-faktore wat die mees beduidende bydrae lewer tot doeltreffende bestuur in die Staatsdiens van Suid-Afrika te identifiseer, om die verskil in die opvattinge tussen diegene in beleid (DHOO) [Departement van Hoër Onderwys en Opleiding] teenoor diegene in die praktyk (HOI's) [hoërondewysinstellings] te ondersoek en om 'n paar lesse oor doeltreffende bestuur te identifiseer wat uit die Kanadese Staatsdiens voortspruit.

Hierdie studie het 'n verklarende opeenvolgende gemengde-metode benadering gebruik om primêre en sekondêre data van die Staatsdiens van Suid-Afrika en Kanada te versamel en te ontleed. Fase 1 bestaan uit 'n vraelys wat geskoei is op relevante literatuur wat op navorsingsdoelwitte 1 en 2 dui. In totaal het 151 respondente van die DHOO en HOI's die vraelys voltooi. Fase 2 bestaan uit die hoogtepunte van die 2019 *PSES* en die perspektiewe van drie doelgekooste kenners in die Staatsdiens van Kanada om navorsingsdoelwit 3 te beantwoord.

Die ontleding van die data het statistiese analise vir Fase 1 en tematiese analise vir Fase 2 ingesluit. Die kwantitatiewe en kwalitatiewe bevindings is gekombineer vir interpretasie en om 'n raamwerk vir doeltreffende bestuur in die Staatsdiens van Suid-Afrika te ontwikkel. Hierdie bestuursraamwerk word as die beduidende oorspronklike bydrae tot kennis beskou. Aanbevelings vir toekomstige navorsing is gemaak. Hierdie studie het ook ten doel om 'n bydrae tot die wêreldwye gesprek oor doeltreffende bestuur, en meer spesifiek tot die diensdomein, te lewer.

Sleuteltermes: Bestuur, Staatsdiens, Kritieke suksesfaktore, Faktorontleding, Hoër Onderwys, Suid-Afrika, Kanada

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ABBREVIATIONS

AGSA	Auditor-General South Africa
DBE	Department of Basic Education
DHET	Department of Higher Education
HEI(s)	Higher Education Institution(s)
ICAEW	Institute of Chartered Accountants in England
IFAC	International Federation of Accountants
InCiSE	International Civil Service Effectiveness Index
IoDSA	Institute of Directors Southern Africa
MAF	Management Accountability Framework
NPM	New Public Management
OECD	Organisation for Economic Cooperation and Development
PSES	Public Service Employee Survey
SCM	Supply Chain Management

CHAPTER 1 INTRODUCTION

1.1 Introduction

Worldwide there is significant focus in management-related fields on effective management within the Public Service. However, there is substantial evidence of ineffective management within the Public Service, and more specifically, within South Africa. While there has been a limited number of studies to date which have highlighted the scale of the problem and some efforts have been made to improve management within the Public Service of South Africa, there has been little research into the perception of Public Service employees and their stakeholders. Furthermore, the combination of these findings and the lessons that could be learned from the Public Service of Canada has not been documented extensively.

The aim of this study is to determine the critical success factors required for effective management in the Public Service of South Africa by incorporating a few lessons learned from the Public Service of Canada. The outcome of this study will be presented as a management framework for application by public servants, managers and stakeholders in the service domain.

Ineffective management in the Public Service is detrimental for the advancement of any society, and particularly in a developing country such as South Africa because of a lack of service delivery, low capacity development, slow building of communities and the perceived neglect of individuals. However, by identifying the critical success factors for effective management within the Public Service, a framework could be constructed. This management framework has the potential to improve service delivery which is beneficial to all citizens regardless of taxpayer status.

1.2 Background

The sole purpose of the Public Service is to deliver quality public services to the public. These services differ in terms of type and application. For the purpose of this research endeavour services rendered in the public interest have a core focus in the higher education sector. If the public is content with the delivery of public services, it indicates that the Public Service is performing satisfactory (Lodge, 2014). In other words, the public provides continuous information on the status of service delivery in the Public Service. This (sometimes silent) communication between the public and the Public Service should not be overlooked.

The effect of ineffective management is more prominent than that of effective management. The lack of effective management within the Public Service is widely reported (Fourie & Poggenpoel, 2017; Franks, 2014; Kesavan *et al.*, 2020; Koma & Tshiyoyo, 2015; Public Servants Association, 2015). Some of the symptoms of fruitless management are that no service delivery is possible,

there is no known strategy, corruption is rife, poor decision-making takes place, low morale of public servants diminishes capacity, low trust from citizens prevents development, service delivery protests occur, a culture of non-compliance is established, little overseas investment is to be expected, downgrading of the credit rating follows automatically, high crime rates are harmful to communities, poverty hampers society, project failure is seen frequently and lack of job satisfaction demotivates employees.

The question of how management within the Public Service can be improved is therefore asked. One option, such as this study, is to identify the critical success factors for effective management within the Public Service. A management framework could be constructed, based on the identified factors and sub-factors. The management framework for this study consists of the critical success factors as identified from the literature and verified by those in policy (Department of Higher Education and Training, DHET) and those in practice (Higher Education Institutions, HEIs), and enhanced by a few lessons from the Public Service of Canada.

For this study, relevant literature from the fields related to management have been reviewed. An overview of previous research includes the work by Van Wart (2013) and Farzin *et al.* (2014). The research by Van Wart (2013:525) stresses the fact that it is the employees and not the managers who conduct the work. Therefore, the employees are in tune with what works and where the challenges can be found. In addition, leaders should teach, coach and mentor public servants to improve performance and develop skills for the future. The research by Farzin *et al.* (2014) has investigated the important critical success factors for the strategic knowledge management implementation in the service sector. Although the research has been focused on strategic knowledge management, the studies are related but a not replication. This study aims to incorporate critical success factors, not only for strategy (knowledge) management, but also with a holistic approach to management. This holistic approach to management includes elements of business management, financial management, governance, people management and skills management.

1.3 Scope of the study

The scope of the study determines the boundaries of the study. For the purpose of this study, the main focus is on improving management within Public Service of South Africa to facilitate the delivery of quality services to the public. The outcome or result of effective management is quality services (Koma & Tshiyoyo, 2015). The purpose of the Public Service, for example the Department of Higher Education and Training (DHET), is defined in legislation, defining its role and accepting its responsibilities (Olivier, 2015). By means of the resource dependency theory, the sample from the DHET is supplemented with responses from publicly funded Higher

Education institutions (HEIs). An HEI is a publicly funded Higher Education institution, but the authoritative responsibility lies with the Public Service. Privately funded HEIs have been excluded from this study, since they do not receive funds from the Public Service.

1.4 Rationale

When the focus is shifted to the Public Service of Canada, the question as to why Canada has been identified and selected as a benchmark with reference to effective management within the Public Service, comes to mind. In a joint effort, the Institute for Government (UK) and the Blavatnik School of Government (2017) reported on the effectiveness of the Public Service in 31 countries all over the world and how the Public Service could be improved. The International Civil Service Effectiveness (InCiSE) Index focus on enhancing performance within the Public Service (Institute for Government & Blavatnik School of Government, 2017). According to the InCiSE Index, Canada is ranked the best performing civil service in the world. In terms of the specific indicators and attributes, performing with similar standard or better than most of the countries. The rationale for this study is to expand on the global discussion on (effective) management, and more specifically in the service domain. To improve service delivery to all South African citizens a framework for effective management within the Public Service of South Africa is essential. A roadmap for implementation of the management framework could be of added value to all stakeholders. Furthermore, this study expands the research by Shepherd (2016) in a call for effective management systems to serve the public. Stated differently, the service delivery expectations of the citizenry are met through recurring processes of planning, action steps, monitoring and feedback.

On the other hand, a lack of effective management endeavours could have an adverse effect on service delivery. The International Federation of Accountants (IFAC) (IFAC, 2014:2) indicates the consequences of not having appropriate systems in place. The federation indicate ineffective service delivery, a lack of sound investment decisions, having no vision and serving self-interest as problematic. These consequences are similar to the ineffective management symptoms. Therefore, this study is needed in an attempt to improve management within the Public Service for a fair and civilized society. Public sector leadership and more specifically the contribution from Canadian scholars to this sub-field of public management and administration have been researched by Mau (2020). A call for more empirical research related to management within the Public Service was made by Mau (2020:144). This study is empirical in nature and is a response to this call. A call was also made by Mau (2020) for more research on leadership development, values, strategic objectives and a high-performance culture to which this study aims to respond.

Public service management and service management are considered different but interrelated concepts. Hodgkinson *et al.* (2017) suggested that a disengagement between public service management and service management literature exists. This disconnect stems from disregarding the service context within the larger Public Service network (Hodgkinson *et al.*, 2017). In other words, service management can create a favourable environment within the Public Service to enhance public value. In this study, the core focus of the Public Service is delivery of quality public services. Lastly, a call for research from outside America was made and this study is a response to that call by Mau (2020). This study is conducted from a local South African perspective, but with a global filter, the lessons on effective management learnt from the Public Service of Canada, attached to the lens.

1.5 Research objectives

The main objective of this study is to develop a framework for effective management in the Public Service of South Africa.

To achieve the main objective of the study, the following secondary objectives are formulated for further investigation

- To identify the factors and sub-factors that contribute most significantly towards effective management within the Public Service of South Africa
- To explore the difference of the perceptions between those in policy (DHET) versus those in practice (HEIs)
- To identify a few lessons on effective management that could be learned from the Public Service of Canada.

1.6 Chapter outline

The overall structure of the study takes the form of five chapters. These are:

Chapter 1: Introduction

The study is introduced with a focus on the main and secondary research objectives.

Chapter 2: Literature review

Literature relevant to the objectives of the study is reviewed.

Chapter 3: Research methodology

The research methodology, research approach and research design are presented. Validation and ethical considerations are also discussed.

Chapter 4: Results

Results relevant to the objectives of the study are presented in text format and as graphic illustrations.

Chapter 5: Discussion and conclusion

The results are discussed and interpreted. A management framework for the Public Service of South Africa with a few lessons learned from Canada is presented. Recommendations are made to stakeholders and limitations are discussed. From this study future research is suggested.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

Management research has gained pace in recent years, especially since the application of business principles within the Public Service environment. While attempts have been made to improve productivity (Dunleavy, 2017; Fourie & Poggenpoel, 2017; Public Servants Association, 2015), research that has been conducted to combine components from business management, public management, governance, financial management, psychology and human resource management into one study is few and far between.

The main objective of this study is to develop a framework for effective management in the Public Service of South Africa. This management framework is considered the significant original contribution to knowledge. This chapter will outline with the background of management and current literature on the specific combination of factors and sub-factors. Literature relevant to the research objectives is reviewed to identify the factors and sub-factors that contribute most significantly towards effective management within the Public Service of South Africa.

2.2 Management

Many definitions of management exist; some are more ambiguous than others. Management is defined as a process with the general tasks of planning, organising, staffing, leading and/or controlling for the purpose of accomplishing organisational goals (Dunham & Pierce, 1989). In their search for a new definition of management, Kaehler and Grundei (2019:9-10) list various examples. From their list three definitions are extracted for this study, namely:

1. “Indeed, we can only answer our question: ‘What is management and what does it do?’ by saying that it is a multi-purpose organ that manages a business and manages managers and manages worker and work” (Drucker 1954:17).
2. “Basically, managing is about influencing action. Managing is about helping organizations and units to get things done, which means action” (Mintzberg, 2009:168).
3. “Management is getting work done through others” (Williams 2018:3).

For this study, per a newly deducted definition, management is a multi-purpose platform to get the work done with focused actions through various stakeholders to achieve the collective objectives.

Perhaps one of the challenges in this attempt to listing the fathers of management is that the list is growing with civilisation. Table 2-1 below presents the most influential work pertaining to this study.

2.3 Main objective of this study

The main objective of this study is to develop a framework for effective management in the Public Service of South Africa. To develop this proposed framework, identifying the factors and sub-factors that contribute most significantly towards effective management within the Public Service of South Africa is essential.

From the literature five critical success factors are identified, namely:

- Business management
- Financial management
- Governance
- People management
- Skills management

In the following sections each of these factors, with four to five sub-factors each, are presented.

Table 2-1: Influential work from the fathers of management

Father of management	Timeline	Contribution of interest to this study	Records of contribution to field of management	Key proposal for this study
Henri Fayol	1841-1925	Fayol's 14 Principles of Management	<i>Administration industrielle et générale</i> (1916) [Translated to English]	Discipline: Respect for rules (employees) Division of labour: Skills management Governance and Financial management <i>Esprit de corps</i> : Promoting Team Spirit
Frederic Taylor	1856-1915	Scientific management Work worthy of systematic examination Time and motion study Distinction between workers and managers Improve efficiency Focus on the individual	1903 in Shop management (1947) The principles of scientific management (1967)	Business management Strategic management Skills management Quality standard Systems that support Skills development Motivation
Elton Mayo (with F.J. Roethlisberger)	1880-1949	Hawthorne studies (Interpreting the results): Research on the relationship between work-place lighting and individual efficiency	The human problems of an industrial civilization (1946) The social problems of an industrial civilization (1949)	Job satisfaction Group cohesion
Peter Drucker	1909-2005	People as resources Purpose for existence of a business: to create a customer Management by objectives	The end of economic man (1939) The future of industrial man (1942) The practice of management (1995) Managing in turbulent times (1980)	People management Customer focus/sensitivity Strategic decision-making Systems thinking Standards

Father of management	Timeline	Contribution of interest to this study	Records of contribution to field of management	Key proposal for this study
		Relate product and industry to total environment Managers operations and top management's tasks Knowledge worker Corporate culture is in the hands of top managers Structure follows strategy	Managing in a time of great change (1995)	Complexity: globalisation Mentoring Career planning Quality is a measure of productivity
John Adair	1934-	Three-circle model of action-centred leadership Developing a personal sense of time	Action-centred leadership (1973) How to manage your time (1990) The art of creative thinking: How to develop your powers of innovation and creativity (2007)	Leadership development Decision-making Time management Innovation and creativity
Henry Mintzberg	1939-	Practicing Management Controversial work on what managers actually do on the job (role clarification) Eight types of management jobs	The Nature of Managerial Work, Harper (1973) Mintzberg on Management: Inside our Strange World of Organizations (1989) The Rise and Fall of Strategic Planning (1994)	Planning Management success Skills development Capacity building Specialised knowledge with wisdom Types of management jobs: - contract manager (figure head and liaison) - political manager (spokesman and negotiator) - entrepreneur (initiator and negotiator) - insider (resource allocator)

Father of management	Timeline	Contribution of interest to this study	Records of contribution to field of management	Key proposal for this study
				- real-time manager (disturbance handler) - expert manager (monitor and spokesman) - new manager (liaison and monitor) - team manager (leader role)

Source: Extracted from British Library (2020a-e), Encyclopedia.com (2019), Hellriegel *et al.* (2004:51-52) and selected original records

2.4 Factor 1: Business management

Business management is comprised of activities related to planning, leading, organising and monitoring (Erasmus+ Strategic Partnership, 2015). In other words, Business management is the collective actions to achieve what had been planned. In the Public Service, Business management is considered the day-to-day managing of the operational activities which concentrate on serving the public by delivering basic services such as the education of students. This factor describes *what* the Public Service manages.

Business management consists of five sub-factors, namely:

- *Strategic management*
- *Serving the public*
- *Management success*
- *Commitment*
- *Public money*

2.4.1 Sub-factor 1: Strategic management

Strategic management is a plan of action supported by processes and feedback. This plan of action is carefully designed, but no activities have yet started. Strategic planning consists of combined processes to reach the desired end result through consultation and aligned performance measures (Dlamini *et al.*, 2019). Stated differently, the development of a strategic plan requires coordinated thinking to provide boundaries for employees and stakeholders in order to achieve the desired goals within the Public Service.

A key component of *Strategic management* is a strategic process. *Strategic management* within the Public Service entails different processes and activities. The strategy process is concerned with various activities, some in parallel, but mostly in sequence and in different stages (Höglund *et al.*, 2018:824). Other components of the *Strategic management* process include the formulation of strategies, implementation of those strategies and feedback, such as evaluation and monitoring.

The implementation of *Strategic management* is supported by systems and approaches. *Strategic management* systems are defined as the integration of multi-level decision-making to ensure that strategic objectives are met and the mission of the entity is accomplished (Bryson & George,

2020:14). In other words, *Strategic management* involves decision-making practices to realise strategic goals.

Seven approaches to *Strategic management* systems are illuminated by Bryson and George (2020:15-18). Table 2-2 below presents the strengths and possible weaknesses of the seven approaches to *Strategic management* systems.

Table 2-2: Approaches to Strategic management

Approach	Strength	Possible weakness
Integrated units of management approach	Link between inside and outside environments through combined strategies on multiple levels and functions	Belief that the future can be predicted accurately
Strategic issues management approach	Suitable for different timeframes, constituencies and politics	Mostly an operational rather than a strategic focus
Contract approach	The centre and individual units focus on what is important for them and empowered to do jobs better	Centre requires adequate information and should exercise control
Collaboration approach: three approaches identified, namely the lead organisation, shared governance and network administrative organisations	Appropriate for shared-power and complex environments	Difficulty to share power and resources among units
Portfolio management approach	Flexibility is achieved by arranging any dimension with another	Comparisons could compromise harmony for politically powerful actors.
Goal or benchmark approach	Independent groups, units or organisations reach reasonable agreement on overarching goals, indicators or benchmarks	Adaptive learning is required to be able to progress
Hybrid approach	Combination of strengths	Limited by several possible weaknesses

Extracted from Bryson and George (2020:15-18)

More *savoir-faire* [capacity for appropriate action] in *Strategic management* is required to achieve the strategic goals as set out by the Public Service. One potential option is provided by Bryson and George (2020:4-5) when aspirations and capabilities are linked, while four broad types of strategists, namely the reactor, the dreamer, the underachiever and the savvy strategist are

identified. The authors state that first three types of strategists are typically found within Public Service contexts. Typically, the reactor reacts to what is presented. The dreamer lives in an environment that is somewhat removed from reality and the underachiever does not achieve much. A call is made for more savvy strategists (as in individuals, teams, organisations and collaborations) to step forward.

Savvy strategists apply the available skills and abilities to position the objectives in such a format which results in achieving the desired outcomes and thus creating public value (Bryson & George, 2020:5). In other words, for savvy strategists the outcome is focused on the strategy delivery through the application of skills and the sequencing the objectives. For this study, savvy strategists are recognised by their ability to create public value. It can be derived that with more savvy strategists within the Public Service the strategic objectives will be achieved without complication. The development of the OECD from the Marshall Plan after the Second World War is an example of such a strategist type (Bryson & George, 2020). For this study, the strategic focus should, however, be shifted towards smaller increments of delivering quality services to the public. Strategic management tools are aimed to assist the public servant to achieve the set goals. Some tools are considered 'enablers' whilst others constrain progress (Höglund *et al.*, 2018). It can be deducted that enablers provide solutions to problems. After the implementation of the strategy, evaluation and monitoring are required. Feedback throughout the system is essential to improve the strategy, processes and activities. *Strategic management* requires clear direction from executives, as well as various aligned processes and systems to realise the objectives of the Public Service. Once the strategy within the Public Service unit or department has been clearly demarcated, the focus shifts to *Serving the public*.

2.4.2 Sub-factor 2: Serving the public

Serving the public is the core function of the Public Service. *Serving the public* takes on many different forms and varies in terms of the type of service delivery. The public depends on the Public Service to provide basic services. According to the Public Service Charter (2013), various services, among others, are provided by the state, including basic and higher education, health services and transport roads along with maritime and aviation services. These basic services should be rendered professionally. The Charter was launched in 2013 and its aim was to improve service delivery within the public sector.

Service standards for all government sectors are clearly defined and include the following minimum requirements:

- Serve citizens promptly and courteously at all service delivery points.
- Provide friendly and helpful service.
- Help service users make the right choices in accessing services.
- Provide appropriate signage and information desks.
- Public servants must wear name tags for easy identification.
- Answer calls promptly.
- Ensure shorter queues at service delivery points.
- Respond to queries and complaints promptly.
- Respond to mail and email correspondence promptly.
- Resolve customer complaints fairly, consistently and promptly.
- Encourage service users to make suggestions on how to better the services offered.

These minimum requirements correspond with the Batho Pele principles. The Batho Pele [meaning 'people first'] principles have been introduced to the Public Service in the late nineties (Department of Public Service and Administration (DPSA), 1997:15). These principles are twofold: they require commitment from each public servant to deliver quality services to the public and participation from the public to ensure that service is delivered on par and timeously. Batho Pele is based on eight principles (DPSA, 1997) could be linked (entirely) to *Serving the public* (see Table 2-3 below). In addition, these principles could also be linked to other sub-factors within this study.

Table 2-3: Batho Pele principles linked to sub-factors

Principle	Link to <i>Serving the public</i> (all principles)	Link to other sub-factors in this study
Consultation	Citizens should be consulted about their needs.	<i>Strategic management</i> <i>Management success</i> <i>Commitment</i> <i>Skills for the future</i>
Standards	All citizens should know what service to expect.	<i>Management success</i> <i>Time management</i> <i>International Accounting Standards</i> <i>Financial management standards</i>
Redress	All citizens should be offered an apology and solution when standards are not met.	<i>Training and development</i> <i>Decision-making skills</i>
Access	All citizens should have equal access to services.	<i>Systems which support</i> <i>Diversity management</i> <i>Global governance</i>
Courtesy	All citizens should be treated courteously.	<i>Leadership development</i> <i>Diversity management</i>
Information	All citizens are entitled to full, accurate information.	<i>Public Service finance and account management</i> <i>Good governance</i> <i>Financial management standards</i> <i>Financial management principles</i>
Openness and Transparency	All citizens should know how decisions are made and departments are run.	<i>Human resource management</i> <i>Decision-making skills</i> <i>Good governance</i> <i>Anti-corruption</i> <i>Transparency</i> <i>Clean audits</i>
Value for money	All services provided should offer value for money.	<i>Public money</i> <i>Level of available skills</i> <i>Financial management standards</i> <i>Financial management principles</i>

Professionalism within the Public Service encompasses all the Batho Pele principles and requires that the public servant to walk the extra mile. Professionalism can be cultivated when public servants develop their skills and gain more knowledge on how best to serve the public. The research by Hlongwane (2018) links professionalism with *Serving the public*. The management of resources improves when the available knowledge and skills of public servants increase

(Hlongwane, 2018:123). Professionalism is also required when public servants interact with colleagues and stakeholders within the Public Service environment.

Challenges to reliable service delivery include difficulty to measure productivity and taking and unrealistic perceptions by the stakeholders. Mabugu and Dawood (2015) are of the opinion that it is difficult to measure service delivery within the Public Service, as services are intangible and collaboration among various departments or units does not create a favourable environment for measuring service delivery. One of the reasons to measure productivity is to improve service delivery. Similarly, Masiya *et al.* (2019) conducted research on public perceptions of basic service delivery (at municipal level) based on the 2016 South African Social Attitude Survey (SASAS). Various historical and context-specific reasons for failure of service delivery were provided. Citizen satisfaction can be determined by measuring the difference between the actual performance against the desired performance within the Public Service (Masiya *et al.*, 2019:24). Stated differently, the expected service delivery level will by nature be higher than the actual service delivery level. It can be derived that the perceptions of stakeholders are not always in line with the actual services, but not to an excessive extent. When the Public Service delivers on its strategic goals by *Serving the public* with excellence, *Management success* is achieved.

2.4.3 Sub-factor 3: Management success

Management success is described as a work environment which stimulates efficiency and effectiveness to improve the management and performance within the Public Service. *Management success* provides some of the answers to managerial challenges within a complex and multi-level environment.

Scholars (Gerton & Mitchell, 2019; IBM, 2008) have identified the following managerial challenges within the Public Service environment:

- Effective management within complex environments
- Governance in a Public Service environment with almost limitless boundaries
- Information overload as a threat to sound decision-making
- Mitigating the risks of digital privacy and security.

Possible solutions (Gerton & Mitchell, 2019; IBM, 2008) include a combination of the following:

- Focus on results by taking the steps to deliver on strategic goals
- Measurable objectives are made possible by strategic goals which translated into action steps, but within budget
- Skilled public servants supported by contractors, not vice versa
- Stewards of resources
- Embracing technology to regain focus on the customer
- Building strong communities by fostering *ubuntu* [a Nguni aphorism, “a person is a person because of or through others” (Mangena, 2020)].

Managerial challenges could be addressed by efficient and effective management within the Public Service. Efficiency relates to the most economical distribution of public funds to realise the objectives, with a high-quality standard in mind, which results in completed tasks whilst spending within budget (Vavrek, 2018:6). In other words, achieving the results without spending more than what is available. Efficiency is seen from several angles, namely as an output, as a ratio of output to standards and as success in fulfilling the intended objectives (Vavrek, 2018:6). In other words, a balance between cost and benefits is essential. Furthermore, the stakeholders (including the Public Service, public servants, service providers and contractors) should adhere to standards, processes and procedures whilst achieving objective goals. This relates to the point of view of whether efficiency is viewed from an internal perspective (focus within the Public Service) or an external perspective (focus towards the external Public Service environment). Effectiveness indicators illustrate the relationship between services and products and the resources needed to produce them (Vavrek, 2018:7). Effectiveness can be defined as meeting the requirements of end users/customers within a given timeframe.

Systems thinking is another way to increase productivity within the complex Public Service environment. Per definition, systems thinking is a theoretical framework typically found in the social and the natural sciences where the different parts of the system exist together as a whole and co-exist in relation to the environment (Theletsane, 2019:578-579). In other words, systems thinking is a way of thinking that incorporates the consequences of different stimuli (such as expectations from the public) in an integrated and interactive fashion. A complex system can be contrasted with a closed or self-sufficient system. A closed system does not need outside input or stimuli in which to operate.

One of the benefits of applying a systems-thinking approach to the Public Service context is to counteract thinking and operating in silos, where a lack of organisational communication in one area of a system has a negative effect in another area of the system (Theletsane, 2019:579). Stated differently, systems thinking opens the lines of communication and collaboration to the benefit all the stakeholders. *Management success*, which includes efficiency and effectiveness as well as a systems-thinking approach, creates conditions conducive to a high-performance workplace within the complex Public Service environment in which the strategic goals can be achieved. *Management success* requires commitment from the Public Service, the public servant and the public.

2.4.4 Sub-factor 4: Commitment

Commitment is the unseen psychological contract between two stakeholders for their mutual benefit. According to the social exchange theory, *Commitment* requires more than just a short-term interaction between the two stakeholders (Kouadio & Emery, 2017:1). *Commitment* requires and interactive relationship with inputs from both stakeholders. It displays the proposed *Commitment* between the Public Service, the public servant and the public in terms of their commitment towards one another (Source: Author).

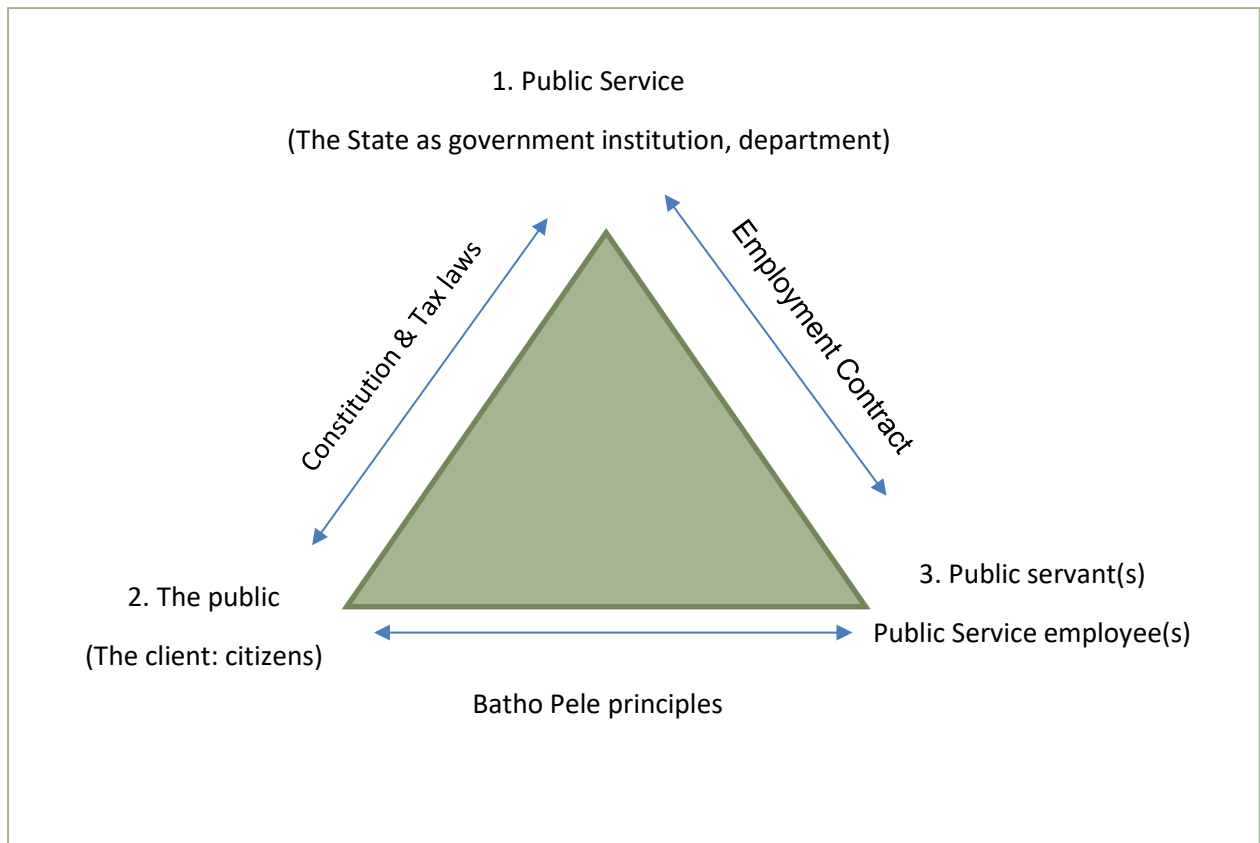


Figure 2-1: Commitment between the Public Service, the public servant and the public

From the figure it is evident that the relationship between the Public Service and the public could be linked by the Constitution and tax legislation (laws). The public expects quality public services from the Public Service. The relationship between the public and public servants could be linked in both directions by the Batho Pele principles. Mutual respect between the public and the public servants supports the principle. The public has the responsibility to hold public servants accountable for their actions. The public has trust in the abilities and commitment of the public servants to act as stewards of public resources in the midst of a complex Public Service environment (Hlongwane, 2018:120-121). Employment contracts link the Public Service and public servants in an employer-employee relationship. *Commitment* between the Public Service and public servants is essential for balance in workplace interactions (Kouadio & Emery, 2017:2). The Public Service expects the public servant to make (authorised) decisions to the best interest of both the Public Service and the public. Public servants should not only take responsibility for when things go wrong, but also on the contrary when the outcomes are positive (Hlongwane, 2018:120). Stated differently, the Public Service and the public should acknowledge the delivery of quality public services.

The public servant fulfils many roles within the Public Service environment, one of which is as a steward. According to Moon *et al.* (2017:6), stewards are responsible to generate favourable outcomes for other stakeholders within the Public Service environment without seeing recognition. In other words, stewardship calls for an outward focus and willingness to serve. Public servants are therefore driven by an internal motivation to fulfil the role of stewards (Schillemans & Bjurstrøm, 2019:5). In addition, when public servants use their skills and knowledge to the benefit of the public (as owners of public resources), the public will respect and trust public servants (Hlongwane, 2018:120-121). Stewardship is therefore regarded as a key component of *Commitment*.

To further explain stewardship, a component of *Commitment*, the composites require unpacking. Moon *et al.* (2017) build on the purposes, beneficiaries and levers of stewardship to develop a typology of stewardship approaches. The composites are listed as follows (2017:16-17):

- “The guide” remains responsible for the resource on behalf of the beneficiary. Accountability is a key behavioural trait of the guide.
- “The gatekeeper” grants access to privately held or controlled resources, although not involved in policy making.
- “The giver” makes a sacrifice for the ‘greater good’ that increases the value or abundance of a resource and is willing to walk the extra mile, but not for recognition.
- “The maximiser” distributes resources for maximum efficiency, utility and benefit of the collective, e.g. acts of volunteerism.

These stewardship approaches are intended not for individual application, but as collectives such as a group on multiple levels within the Public Service.

To emphasise the *Commitment* from the Public Service, the research by Kouadio and Emery (2017:27) states that commitment toward public servants includes, but is not limited to listening, supporting, protecting, consulting, communicating and socialising. On the other hand, the authors also identify *Commitment* from the Public Service toward public servants as empowerment, supportive feedback and the development of human capital.

The National Development Plan 2030 offers a long-term perspective for *Commitment* from the state to the public by defining a desired destination and identifying the role different sectors of society need to play in reaching that goal. The Plan (South African Government, 2020) indicates commitment in stating that public servants and all citizens are central to minimize poverty and to

create equality for all South Africans by 2030, through leadership initiatives, skills development and collaboration. *Commitment* from the public towards the Public Service and the public servant can be condensed to respect towards the Public Service (as in paying taxes) and respect towards public servants (as in adhering to the Batho Pele principles). According to the Bible, a believer is called to pay taxes to the State: “Render to Caesar the things that are Caesar’s, and to God the things that are God’s” (Mark 12:17, King James Version). In other words, citizens are called to pay their taxes. The authorities are then responsible to act with the best interest of the public in mind. When the public respects public servants, quality service will follow naturally.

Commitment from the Public Service, public servants as well as from the public fosters an environment conducive to high-performance outputs. The cost implication of these outputs requires further attention.

2.4.5 Sub-factor 5: Public money

Public money is the money of the public that is managed by the Public Service. The Institute of Chartered Accountants in England and Wales (ICAEW) (2018:8) states that in most countries from a public money viewpoint the Public Service is able to function as a result of tax collection from the private sector. Thus, the private sector finances the Public Service and therefore could inquire as to how its money is spent. The ICAEW (2018:2) goes on to state that mutual trust between the Public Service and the public in terms of the collection of taxes and the application of public money serves public good. In other words, *Public money* expects a trust relationship. This trust relationship is reciprocal: the public has a responsibility to fulfil in terms of paying taxes and the Public Service has a responsibility in terms of managing the resources.

Similarly, Hlongwane (2018:120) emphasises the role of the Public Service to safeguard public money and other resources. Public money is the property of the public. Sound accounting and financial management principles should be applied to enhance public value. If the public receives continuous communication pertaining to the financial health of the Public Service and collaborates with the Public Service, the public will be empowered through knowledge. Table 2-4 below presents the four principles (ICAEW, 2018:6) that underpin trust in public finances:

Table 2-4: Four principles of trust in public finances

Principle	Description
Transparency	Accurate records that show where money is raised and spent
Assurance	Figures and processes are checked by independent experts.
Accountability	Decision-makers are clearly identified and subject to strict rules and review of performance and outcomes.
Objectivity	Policies are based on accurate information and rigorous analysis.

Public money is collected from the public and distributed according to the planning as set out in the budget. According to the ICAEW (2018), success in any economy is built on trust of how public funds are assigned. For a better understanding of the interaction of *Public money* within the Public Service environment the following scenario is presented: The public servant should experience public services from the point of view of the public and similarly, the public servant should deliver quality public services as per their own expectations within budget. *Public money* requires input from both the Public Service and the public. In theory, it is a mutual beneficial relationship which results in public good.

The Business management factor, with the associated five related critical success factors, namely *Strategic management*, *Serving the public*, *Management success*, *Commitment* and *Public money*, has been discussed within the Public Service environment. These collective actions describe what the Public Service manage in order to achieve public good.

2.5 Factor 2: Financial management

Management of finances is considered an intricate but manageable science. Financial management is defined as the “economics of time and risk” (Atrill, 2006:5). Stated differently, Financial management involves the planning, organising and controlling monetary resources to mitigate risks at any particular point in time. These monetary resources are collected from the public through taxes. The public expects the Public Service to make sound financial decisions and to communicate these to the public. The ICAEW (2018:2) is of the opinion that although universal Financial management principles exist and the foundation of trust is the worldwide norm, no single approach to public Financial management exists. For this study, Financial management is concerned with the management of finances by decision-makers; for example, non-financial public servants as opposed to financial experts.

From the literature five critical success factors are identified, namely:

- *Public Service finance and account management*
- *Clean audits*
- *International Accounting Standards*
- *Financial management standards*
- *Financial management principles*

The sub-factors will now be discussed individually.

2.5.1 Sub-factor 1: Public Service finance and account management

In principle, *Public Service finance and account management* is in essence the same principle from the beginning of civilization except for a difference in the laws and regulations within each culture or country. Systems have been created to manage and keep record of public finances. In the abstract, Joannidès de Lautour (2018) proposes that Public Service management accounting systems supports the Public Service to achieve the main objective of the Public Service, that is to serve the public. Therefore, *Public Service finance and account management* assists the public servant to make informed decisions, now and for the future.

This is no different in the South African context. Already in 2000, National Treasury has indicated that in terms of Financial management the Public Service is tasked with the management of scarce resources; administering public money and other assets; to create public value by realising the objectives of Government which is aligned to the Constitution (National Treasury, 2000:3). Stated differently, Public Service finance and account management provides financial oversight on service delivery. This focus is universally applicable, and requires ethical and transparent behaviour from public servants.

In *Public Service finance and account management*, basic principles of Financial management from the private sector are applied. These principles assist public servants as decision-makers with key information and controls in an attempt to prevent abuse and create incentives for delivery of public services (Graham, 2011). In addition, public sector management accounting is associated with the numbers indicating how taxpayers' money is spent. The research by Modell (2014) unlocks management accounting to a wider scope by drawing attention to the societal perspective when it takes shape beyond individual units into society where multiple levels are of interest. This results in less conflict for power and influence.

According to National Treasury (2000), the Public Finance Management Act (PFMA), 1999 (Act No. 1 of 1999), as amended by Act No. 29 of 1999, is perceived as a key guiding principle in terms of Public Service financial decisions and in terms of oversight of scarce resources. The Act supports the public in the delivery of quality services through the application of financial rules and regulations. The Act supports the public servant in providing a Financial management system with the necessary controls and balances in place. The Act supports the Public Service in a governing and authoritative capacity to uphold accountability, stewardship and to minimise corruption.

Table 2-5 below presents the responsibilities of accounting officers linked with sub-factors in this study.

Table 2-5: Accounting officers' responsibilities and sub-factor link

Key responsibilities for accounting officers	Link responsibilities with sub-factors
Operation of basic Financial management systems, including internal controls in departments and other entities under control	<i>Public Service finance and account management</i> <i>Financial management standards</i>
Ensure departments do not overspend on budgets	<i>Public Service finance and account management</i> <i>International Accounting Standards</i>
Report monthly and annually, including the submission of annual financial statements	<i>Public Service finance and account management</i> <i>Clean audits</i>
Publish annual reports in a prescribed format which will introduce performance reporting Disciplinary action or dismissal of public servants for negligence or non-compliance with responsibilities as set out by the Act Linkage between financial regulations and performance contracts	<i>Clean audits</i> <i>Anti-corruption</i> <i>Transparency</i> <i>Human resource management</i> <i>Decision-making skills</i>

Source: Extracted from National Treasury (2000)

If the *Public Service finance and account management* procedures are in place, the scaffolding for a clean audit is prepared.

2.5.2 Sub-factor 2: Clean audits

Auditing is regarded as a method of a stock-taking to determine the financial health of the unit or department within the Public Service. The Independent Regulatory Board for Auditors (IRBA) (IRBA, 2019:4) describes the auditing process as objective and evaluative in nature. The auditing process in the Public Service environment is used for verification of records against predetermine information or controls. In other words, records are checked to determine a match to the criteria.

Clean audits are per definition difficult to pin-point. A report by SAICA (2012) indicates that this debate is ongoing and whether the public understands its meaning. The unit or department ought to be unqualified in three elements, namely the audit of financial statements, reporting of performance against predetermined objectives, and compliance with laws and regulations to result in a clean audit. The report emphasises the elements of a *Clean audit* as “complementary and not exclusive” (SAICA, 2012). According to the Auditor-General of South Africa (AGSA, 2020), the purpose of an audit of financial statements is to obtain a professional overview of the current financial position of the Public Service department for the particular financial year. Stated differently, the financial health of the Public Service department is evaluated against the records and reported on at a specific date.

The outcome of the audit provides valuable information to decision-makers. Table 2-6 below presents possible audit outcomes (AGSA, 2020).

Table 2-6: Possible audit outcomes

Audit outcome	Description
Clean audit outcome	The financial statements are free from material misstatements (in other words, a financially unqualified audit opinion) and there are no material findings on reporting on performance objectives or non-compliance with legislation.
Financially unqualified audit opinion	The financial statements contain no material misstatements. Unless we [AGSA] express a clean audit outcome, findings have been raised on either reporting on predetermined objectives or non-compliance with legislation, or both these aspects.
Qualified audit opinion	The financial statements contain material misstatements in specific amounts, or there is insufficient evidence for us to conclude that specific amounts included in the financial statements are not materially misstated.
Adverse audit opinion	The financial statements contain material misstatements that are not confined to specific amounts, or the misstatements represent a substantial portion of the financial statements.
Disclaimer of audit opinion	The auditee provided insufficient evidence in the form of documentation on which to base an audit opinion. The lack of sufficient evidence is not confined to specific amounts, or represents a substantial portion of the information contained in the financial statements.

Source: AGSA (2020)

The audit outcomes indicate the next steps. Direction on how to improve management within the Public Service in order to realise the strategic objectives is given. A link between public value and *Clean audits* could be established when the latter is envisaged as one of the benchmarks for effective management within the Public Service.

In Chapter 2 of the Public Value in Public Service Transformation: Working with Change report (OECD, 2019), public values try to capture the notion that the government provides services to the community as a beneficiary within a larger ecosystem. The beneficiaries are not just the direct recipients of services, but a broader community that benefits from the collective goods. Public value is thus created by the Public Service.

Clean audits enable the measurement of public value. Public value is created amidst of constant change. This Working with Change report (OECD, 2019) identifies three key enablers to systems change, namely:

- Envisioning and acting on the future
- Putting public value at the core of the change process
- Systematically engaging citizens in decision-making

These enablers to systems change assist the Public Service to better prepare for sustained service delivery. *Clean audits* set the tone for the Public Service, as the public sector, to become aligned with international public sector accounting standards.

2.5.3 Sub-factor 3: International Accounting Standards

Standards assist the user of (accounting) information to apply quality control measures to the item or unit, thus creating public value. Edwards (2017) states that solid accounting practices have the capacity to influence countries for the greater good which is contrasted to a lack of standards which leads to financial difficulties and protests. Thus, public servants and managers have the responsibility to influence the nation for the greater good. *International Accounting Standards* provide one such option.

According to Kountzakis (2019:455), *International Accounting Standards* provide rules and regulations which assists with accounting issues for a standardised Public Service environment which results in transparent, comparability and uniform conditions. Thus, a link between the control measures and standards are made which assists the Public Service to make better decisions. The International Public Sector Accounting Standards Board (IPSASB) supports public sector entities globally to comply with *International Accounting Standards* (IPSASB, 2020). In other words, financial reporting is scrutinised and elevated to a high standard, in South African and globally.

The South African Accounting Standards Board (ASB) determines the financial reporting framework for public sector entities (Independent Regulatory Board for Auditors, 2019:26). Furthermore, the ASB sets standards of generally recognised accounting practices (GRAP) for the annual financial statements for the Public Service.

The ASB also (Independent Regulatory Board for Auditors, 2019:26):

- Promotes the adoption of standards of GRAP
- Monitors the implementation of standards of GRAP
- Influences the development of international standards

Public servants within the accountancy profession require various skills to keep record and report on the financial health of the unit or department within the Public Service. According to the ICAEW the basis for rigorous independent scrutiny lies with accountancy skills (2018:7). Stated differently, accountancy skills and adhering to local and global standards will consequently ensure that public resources are managed more effectively, and that the strategic objectives can be realised. If adhered to, *International Accounting Standards* empower public servants and managers to elevate financial reporting to a global standard. In addition, *Financial management standards* require consideration.

2.5.4 Sub-factor 4: Financial management standards

Financial management standards can be explained by an overview of the role of professionalism within the Public Service and the role of Financial management systems. When a public servant or manager displays professionalism, it could encourage Financial management practices of high standard. Beazley (2018:83) mentions the efforts of the Netherlands, South Africa and the United Kingdom to strengthen professionalism in Financial management in the Public Service environment as follows:

- Changes to recruitment processes
- Reorganisation of training
- Closer collaboration with professional finance bodies and universities
- Introduction of competencies for key finance positions
- Improvement of career management for Financial management professionals
- Provision of better support for in-service professional development.

Public servants and managers could benefit by acknowledging the characteristics of professionalism, and then the application to the Financial management system will follow naturally. A Financial management system is considered a building block of Financial

management. Van der Waldt (2013:301) is of the opinion that budgeting within the Public Service has no fundamental value but when it is combined with the accounting systems, value is created for the Financial management system. In addition, a Financial management system entails of a combination of integrated main systems, namely planning, budget, accounting, financial control and allocation systems (Van der Waldt, 2013:301). Subsequently, information is essential in Financial management systems. Information from Financial management systems is channelled via communication techniques to internal and external stakeholders. For example, information pertaining to budgeting is channelled to financial managers and non-financial managers for planning and decision-making for the following financial year. A similar example for external stakeholders entails that accounting information is channelled to the public to communicate spending of taxpayers' money.

Efficiency in financial reporting results in better valuation of information and sound judgement in complex situations. Zdravkoski (2014:232) is of the opinion that quality is not only essential during task execution, but also during the reporting phase which will result in improved outcomes. A high-performance workplace where the strategic objectives of the Public Service could be realised is thus created. Additionally, the needs of all stakeholders should be considered and the focus should primary be on quality of financial reporting (Zdravkoski, 2014). In the end, quality of financial reporting is of value for the public servant (as a decision-maker), the Public Service (as custodian of public resources) and for the public (as co-owners of the resources).

There are lessons pertaining to public Financial management that could be learnt by developing countries. The research on Ghana's public Financial management reform makes the call for "consolidation and sustainability as an endeavour that must be encouraged" (Abdulai, 2020:437). Similarly, horizontal integration and longevity are evaluated. In order to achieve *Financial management standards*, *Financial management principles* should be applied.

2.5.5 Sub-factor 5: Financial management principles

Financial management principles are presented with a focus on public Financial management success, public Financial management systems, as well as principles for applications in Financial management. The Confederation of Asian and Pacific Accountants (CAPA) introduced eight key elements of public Financial management success, listed as follows (CAPA, 2014):

1. The climate for reform
2. Governance – legal and institutional framework
3. Governance – the values system

4. Capacity and capability
5. Fiscal and policy framework
6. Performance management
7. Reporting
8. Scrutiny and assurance

These key elements are essential for a comprehensive and coherent system of public Financial management, but they only provide guidance and stimulate conversation (CAPA, 2014). These key elements of PFM success are supported by the main elements of public Financial management systems and the principles for application in Financial management.

For developing countries such as South Africa, the main elements of public Financial management systems are identified as follows (Holynskyy, 2017:23):

- The organisation of financial resources management
- Financial forecasting and planning
- Financial regulation
- Financial control

These elements are deemed interrelated and interdependent and could be applied to the budget system. Information is essential for efficient financial reporting. Globally, information [perhaps even an information overload] is available instantaneously, but the question of which information is appropriate and beneficial is somewhat challenging, particularly for the application in Financial management. *Financial management principles* for NGOs (Humentum, 2017?) and the Global Management Accounting Principles (Association of International Certified Professional Accountants, 2017) are combined in Table 2-7 below. A link with the factors in this study is also proposed.

Table 2-7: Principles for application in Financial management

Principles for application in Financial management	Description	Proposed link with factors
Stewardship/Trust	Steward of resources through various systems Stewardship which builds trust	Business management
Accountability	Scrutiny of financial reports Report to stakeholders	Financial management
Transparency	Openness of information	Governance
Viability	Measuring financial continuity and security	Financial management
Accounting Standards	Adhere to international standards	Financial management
Consistency	Policies and systems being consistent for financial reporting	Governance
Influence	Communication which provides influential insight	Governance
Relevance	Relevant information of past, present and future being available	Financial management
Analysis	Impact on value analysed Simulation of scenarios	Financial management

Principles for application in Financial management are considered universal, whether applied to the public or private sector. When *Financial management principles* are applied accurately in the Public Service workplace, a local and global focus on service delivery to all stakeholders is of paramount importance.

The five critical success factors related to Financial management, namely *Public Service finance and account management*, *Clean audits*, *International Accounting Standards*, *Financial management standards* and *Financial management principles* have been presented for the application within the public sector context. The way in which public services are governed will now be presented.

2.6 Factor 3: Governance

Governance can be described as the collective endeavours which influence how the Public Service is managed in order to achieve the desired strategic objectives, and ultimately, to facilitate

a better life for all. The Canadian Institute on Governance (IOG) (IOG, 2020), indicates that a straightforward definition for Governance is not easily found. As stated by the IOG “[T]he complexity of Governance is difficult to capture in a simple definition”.

From the literature five sub-factors are identified, namely:

- *Systems which support*
- *Good governance*
- *Anti-corruption*
- *Transparency*
- *Global governance*

The sub-factors will now be discussed separately.

2.6.1 Sub-factor 1: Systems which support

Systems which provide support to the Public Service in its day-to-day functioning include, but are not limited to supply chain management, advancement in technology and communication. These systems enhance trust towards all stakeholders, and assist public servants and managers to make quality decisions. Governance ecosystems contain different processes and *Systems which support* public servants and managers to fulfil their role in service delivery. The IOG (IOG, 2020a) positions governance as follows: “Public Governance is about the broader Governance ecosystem of a society. It is the examination of the role of institutions, citizens, civil society, norms, and processes that affect societal priority setting and service delivery.” Within this broader Governance ecosystem various systems are required to support the Public Service to optimise its results.

One such support system is called Supply Chain Management (SCM). The South African National Treasury made the following statement pertaining to supply chain management (National Treasury, 2015): “The current quality of SCM data is poor, and there is no uniform SCM data management system. Efficient data management and market intelligence can contribute very significantly to government’s SCM ability; to suppliers’ ability to respond to government’s needs...” This indicates that more work is to be done to achieve transparency, accountability and oversight in decision-making.

Trust plays a vital role in the decision-making process. The International Federation of Accountants (IFAC) states that trust should be regarded as one of the highest priorities in governments globally (IFAC, 2014). Furthermore, trust is established by providing accurate and timely information on financial and social decisions which demonstrate accountability, stewardship and reinforce credibility (IFAC, 2014).

Communication is viewed as a strategic tool and a system which supports the Public Service to realise its strategic objective. Kouadio and Emery (2017:28) make the link between communication and work performance by saying that "...organizations may benefit from better communication about the intentions behind some of their practices, especially those meant to control employee work". Communication is essential in managing conflict situations. Holzer and Schwester (2011:341) are of the opinion that "[E]ffective communication involves a two-way flow of information". Consequently, effective communication between the stakeholders and the Public Service environment will bring balance to the perceived tension.

The role of the media in terms of communication should not be underestimated. Vyas-Doorgapersad (2013:127) is of the opinion that the media have an important communication role to fulfil between the Public Service and the public. This is also the case with the flow of information to other stakeholders such as service providers and external funding groups.

Technology is one mechanism which provides support to the Public Service. Online technologies could provide general support to a public Financial management strategy (Abdulai, 2020:437). Technologies and other systems such as knowledge management provide support to the Public Service to better manage operations to achieve its strategic objectives. Knowledge management, as a system to handle information, supports the overall functioning of the Public Service. Research to identify the critical success factors of knowledge management within the service sector, and more specifically in the banking industry in Iran, underline the idea that "knowledge management must encompass people, process, technology and culture" (Farzin *et al.*, 2014:596).

According to the OECD (2019), current and future Systems which support should be aligned, as "[G]overnments around the world are facing an unprecedented transformation process, where systems that have worked and delivered results in prior decades are being questioned". In the future, provision for new *Systems which support*, including technology innovation, must be made in terms of strategic planning and budgeting. The link between people and *Systems which support* is made by Mintzberg (2019) in a fundamental belief that "management is about applying human skills to systems, not applying systems to people" (British Library, 2020) (see Kumar, 2015; Mintzberg, 2019). The means to realise this is through comprehensive governance.

2.6.2 Sub-factor 2: Good governance

The manifestation of *Good governance* within the Public Service environment is not as effective as when (good) governance is absent. Already in 1989, the term governance was mentioned in a World Bank study of sub-Saharan Africa crisis on sustainable growth in which institutional reform and efficiency in the public sector were prominent (Maldonado, 2010:49). Other crises in Africa have followed. Mo Ibrahim's words of 2006, "Nothing, simply nothing, is more important to African development than *Good governance*" (Ibrahim cited in Ibrahim Index of African Governance Summary Report, 2014) are cited via various media reports. Edwards (2017, paragraph 2) emphasises that, as the economies of African countries continue to strengthen, *Good governance* and strong public Financial management are essential.

To widen the scope, Singh (2014) mentions that there is no universally accepted definition for governance, but highlights two different but cohesive perspectives, namely the internal perspective (Governance practices of the board) and the external perspective, the context of the institution where political and economic influences are found. A similar definition provided by the IOG (2020a), namely "[G]overnance is how society or groups within it, organize to make decisions" shifts the focus more towards decision-making processes.

Governance and the King reports go hand-in-hand. For the full reports, see Institute of Directors Southern Africa (IoDSA), 2016. The King III Report of 2010 is summarised as follows: "However, good governance and compliance with legislation are mutually inclusive; in contrast to its predecessors (King I and II), King III applies to both public and private entities regardless of the manner and form of incorporation" (Singh, 2014). In the words of Prof. Mervyn King (2016):

The overarching objective of King IV is to make corporate governance more accessible and relevant to a wider range of organisations, and to be the catalyst for a shift from a compliance-based mindset to one that sees corporate governance as a lever for value creation.

The implication for the Public Service is closely related to its core function, that of creating (public) value. The research by Modiba (2019:391) recognises the missed opportunity within the Public Service [Departments of Education, Health and Police Service in the Limpopo Province] by taking their own clientele for granted through managing and leading without good and ethical governance practices.

The United Nations Development Programme (UNDP) articulates principles of *Good governance* [with a claim to universal recognition]. These principles have been grouped into five themes by the IOG (2020b) as set out in Table 2-8 below.

Table 2-8: Principles of Good governance

IOG Theme	UNDP principle
Legitimacy and voice	Participation and consensus orientation
Direction	Strategic vision
Performance: Responsiveness	Responsiveness and effectiveness and efficiency
Accountability	Accountability and transparency
Fairness	Equity and rule of law

The circumstances under which these principles are applied, as well as the implementation process, could have a significant effect on the outcome. The question that comes to mind is what the benefit of *Good governance* is for the Public Service environment. The answer lies in the absence of *Good governance*. As stated by Modiba (2019), “[it] deprive[s] civil society of the quality service delivery” (2019:392). When *Good governance* is in practice, the self-destructive cancer of modern civilisation, called corruption, could be alleviated.

2.6.3 Sub-factor 3: Anti-corruption

Measures to prevent fraud and corruption provide support to the Public Service as the custodians of the taxpayers’ money. Whistleblowing is a way to disclose fraudulent or corrupt practices. Whistle-blowers are individuals who report unethical or illegal behaviour to those who are in the position to take corrective action (Hellriegel, 2004:130). Corrective action indicates that the fraudulent or corrupt practices have already occurred. Shepherd (2017) states that, when the strategic objectives are not met, the unit or department is “likely [to] have gone beyond the risk of a negative outcome, to a problem that has already manifested itself” (2017:3).

Service delivery is impaired by fraud and corruption. Baloyi and Erasmus Beyers (2019:23) are of the opinion that “service delivery is hampered by poor planning and the embezzlement of public funds which have both been identified as factors that delay service delivery”. Similarly, Dlamini *et al.* (2019) have identified two of the main challenges to strategic planning in a Public Service organisation as “fraud and corruption are disastrous for the sound functioning of any government” (2019:122). Fraud and corruption have the potential to break the chain of trust between the Public Service and the public.

The main objective of the Public Service is to serve the public. Hlongwane (2018) indicates that “...untrustworthy and corrupt officials can make it impossible [for] or difficult for citizens to gain access and enjoy benefits of their own resources” (2018:121). The intended purpose of these resources is to serve the public. Corrupt public servants deprive not only the public, but the corrupt

actions have a negative effect on the economy as well. A lack of trust is indicated when public finances are not managed effectively. The reason for this is because money is either wasted or channelled illegitimately towards personal or political goals, the inevitable result will be a loss of trust among the public and damage to the economy (ICAEW, 2018:9).

A call is made to rethink the challenges associated with measuring corruption (United Nations Economic Commission for Africa, 2016), as “[C]orruption has many facets and is often conducted in secrecy, which makes it inherently difficult to measure in a precise and objective manner” (UN Economic Commission for Africa, 2016:17). Indicators to measure corruption include the following:

- The Corruption Perceptions Index (Transparency International)
- The Worldwide Governance Indicators (The World Bank)
- The Global Corruption Barometer (Transparency International)
- The Global Integrity Index (Global Integrity)
- The Index on African Governance (Mo Ibrahim).

These measures could assist the Public Service and the public to become more aware of corruption. Corrective and disciplinary actions are needed in an attempt to mend this downward spiral.

Once corruption has occurred, corrective actions should follow. Baloyi and Erasmus Beyers (2019:24) suggest that corrupt public servants and managers be held liable for financial malpractice and pay penalties. Senior officials within the Public Service environment have the responsibility to enforce compliance with applicable regulations and laws. Hlongwane (2018:122) indicates the gravity of fraud and corruption when he states that “[I]f public officials steal and misuse public resources, this would constitute a betrayal of the citizens”. In the end, it is not only the Public Service that is affected by fraud and corruption, but also society at large. Therefore, control systems to prevent this type of behaviour should be in place.

2.6.4 Sub-factor 4: Transparency

It is believed that citizens of modern times have the opportunity to judge the quality of service delivery. Hlongwane (2018:122) is of the opinion that “public servants ought to be ready and willing to be criticised harshly or constructively by the people they serve”. The question whether

Transparency is applicable only when service delivery tends to result in criticism, rather than constructive feedback, is illusive.

The Public Service makes various decisions daily which impact the lives of the public, either instantaneously or in the long run. If these decisions are communicated to the public with openness and indicate the associated responsibilities of the stakeholders, trust towards the Public Service is likely to increase. The contrast is also true. Albaladejo (2019:16) confirms this view by stating that “[T]ransparency is the most powerful solution, the cornerstone of one of the most intangible problems of democratic governance: the increasing distrust of citizens towards the government”. Trust and *Transparency* go hand in hand and are associated with accountability. According to the ICAEW (2018:6), “[T]rust grows out of a commitment to accountability and *Transparency* which together create a culture of rigorous scrutiny”. Given that accountability in South African public administrations is at its lowest ebb (Modiba, 2019:393), *Transparency* is consequently deficient.

The main root causes for the poor state of accountability in the Public Service environment can be attributed to the following challenges (AGSA, 2020):

- Lack of consequences for poor performance or transgressions
- Instability and high vacancy rates in key positions
- A tendency not to implement the AGSA’s recommendations about what needs to be done to improve internal controls and address risks

In contrast with these challenges, *Transparency* stimulates a climate of trust (where the public have confidence in the Public Service) and an environment of openness (where the public is part of decision-making processes) (Albaladejo 2019:16). In other words, *Transparency* inspires integrity. Integrity is considered behaviour to conduct work at the expected standard, irrespective of whether the manager or director is present.

The Ibrahim Index of African Governance (IIAG), which measures country performance in delivering governance, identifies transparency and accountability as two of its key components (Mo Ibrahim Foundation, 2018:7). The Foundation further mentions that transparency and accountability measure “the degree to which public officials, institutions and the private sector are subject to oversight and scrutiny by other institutions and citizens, in order to make the government responsive in the pursuit of the public interest” (Mo Ibrahim Foundation, 2018:27). In other words, oversight and scrutiny add value to both the public and the Public Service.

The research by Albaladejo (2019:17) concludes that “it is about quality rather than quantity of *transparency*”. Furthermore, the basic requirements of effective transparency are the following:

- Transparency should report relevant information and not contribute to data overload with documents that are too technical.
- Transparency should be based on unbiased, fair information.
- Data should be objective and comparable with counterparts.

The truthful demonstration of Transparency within the Public Service environment could assist public servants and managers to be more competitive in a global context.

2.6.5 Sub-factor 5: Global governance

Global governance shifts the focus outward towards the global competitive environment and in some cases into the virtual market. Governance is viewed as modern as that herding is part of civilization. Schillemans and Bjurstrøm (2019:2) stated that “[M]odern governance is very much like herding: it is the art and craft of coordinating, steering, and controlling a large flock of individual agencies threatening to go it alone”.

As a result of globalisation, the world has transformed into a small village where information and digitalisation are the order of the day. The natural boundaries indicated by the dotted lines on a map have faded as paper from a paperless environment. The freedom of global interaction on Public Service level brings more responsibility to government. Holzer and Schwester (2011:463) are of the opinion that globalisation brings with it more obligations. They note that “[C]reating a balance between national and international interest could be the greatest challenge for public administrators in the coming years”.

This responsibility is also found in collaboration between stakeholders. For some, it could be difficult to think of a time when collaboration has not been part of the Public Service environment. A universally accepted definition of collaboration proves difficult to find. Kekez *et al.* (2019) have identified six major arrangements in public policy implementation and service delivery related to collaboration, namely consultation, contracting-out, commissioning, co-management, co-production and certification. Collaboration brings along opportunities and constraints. Osei-Kojo *et al.* (2020:381, 384) have conducted similar research and identified three main opportunities. These are maximisation of scarce resources, the capacity for joint action and improved service delivery. They have also identified three main constraints, namely the challenge of evaluating and measuring outcomes of collaboration, the lack of consensus about the meaning of collaboration

as well as accountability and power-sharing issues. In an agile Public Service environment, collaboration will flow effortlessly.

The question is asked as to how an agile Public Service environment can be fostered. In an agile Public Service environment, the needs of the public are met, regardless of the external pressures. This is possible because the Public Service is “responsive, flexible, creative and attuned to citizens” (Canada’s Public Policy Forum & PwC, 2015). In addition, in this report (2015), leadership identified the following elements that are essential to agility:

- Developing strong partnerships
- Investing in human capital
- Supporting and training leaders
- Investing in technology

A call was made for agility within the Public Service; thus, moving forward instead of being stagnant.

Because of globalisation, the world has become a small village. Although there could be challenges in the perceived limitless environment, the focus of the Public Service is still the same, namely to serve the public as in people serving people.

The five sub-factors related to the Governance factor, namely *Systems which support, Good governance, Anti-corruption, Transparency* and *Global governance* have been discussed. These factors influence how the Public Service is managed in order to achieve the desired strategic objectives.

2.7 Factor 4: People management

People management is defined as the engagement and effective utilisation of human capital to realise the strategic objectives (Merriam-Webster Inc., 2020). People management incorporates human resource management practices, the development of leaders, values related to strategy realisation, time and Diversity management as core elements to foster a high-performance workplace. People management describes whom the Public Service manages.

People management consists of five sub-factors, namely:

- *Human resource management*
- *Leadership development*
- *Values*
- *Time management*
- *Diversity management*

2.7.1 Sub-factor 1: Human resource management

The Public Service is the largest employer in most countries. Thus, *Human resource management* calls for deliberate thought and planning. *Human resource management* is defined as a process of managing employees, with a focus on the strategic objectives to optimise employee performance and productivity. Consequently, employees experience job satisfaction. The core *Human resource management* practices include recruitment and selection, as well as training, development and performance management (Rees, 2013). Other *Human resource management* functions such as compensation, labour relations and workplace safety are beyond the scope of this study.

Human resource management in the Public Service environment entails more or less the same policies, programmes and procedures found in the private sector. The main difference is that the overall focus in the private sector is on the creation of wealth, whereas in the Public Service environment, the overall focus is on the creation of public value.

Several challenges related to *Human resource management* practices have been identified. These challenges have been studied by various scholars. Subramoney and Matshabaphala (2019:678) indicate that “[t]he high turnover rate of HoDs in the South African public sector can affect the sustainability in the delivery of government programmes”, while Modiba (2019:393) concludes that an “...inability to appoint sufficiently dedicated and honest people as public servants remains a challenge.” No clear baseline is identified from where government agencies can begin to improve their measurement process, says Shepherd (2017:3). Furthermore, Olivier (2015) identifies staff-related difficulties such as buy-in and coordination from public servants and a lack of objectives that are specific, measurable, aligned to, realistic and time-bound.

The interaction between *Human resource management* and performance is different from that in the private sector with regard to the overall strategic objective. According to Vignieri (2018:1),

“[P]erformance management is a management style aimed at setting goals and ensuring that such targets are achieved through a planning and control cycle”. In other words, planning and control are essential in achieving the strategic objectives of the Public Service. Similarly, Singh (2014) stresses that performance could be measured against the economy, effectiveness and efficiency of management. Thus, a measurement of performance is essential to remain dedicated to *Serving the public*.

Poor performance within the Public Service can be attributed to a lack of clear direction. According to Dlamini *et al.* (2019:114), “[P]ublic sector organisations in South Africa are failing to improve the performance management of their departments due to poor alignment of their objectives and performance”. Therefore, to achieve success, *Human resource management* practices should be aligned with the strategic objectives of the Public Service.

2.7.2 Sub-factor 2: Leadership development

Leadership has been widely debated and is even considered a tad controversial in terms of whether leaders are born or made and whether it is part of management or a synonym for management (Kaehler & Grundei, 2019). The connection between leadership and persuasion is clear to accomplish the predetermined goals, as Majebele (2018:572) states that “[L]eadership refers to the ability to persuade others to enthusiastically and diligently pursue the project or organisational mission and or objective”. Irrespective of the school of thought, the focus is on the development of leadership competencies for individual growth and external value-add. When leadership competencies in the Public Service environment are developed it is natural that personal leadership style will be influenced. For this study, the focus is more towards the external value-add.

One option to develop leadership competencies is presented. Action-Centred Leadership is John Adair’s teaching method where leadership is defined in terms of three overlapping and interdependent circles: Task, Team and Individual (British Library, 2020). This model describes what leaders have to do to be effective in any work environment, namely to achieve the task, build and maintain the team, and develop the individual. A similar pattern is present in the following key leadership competencies (Treasury Board of Canada, 2015):

- Create vision and strategy.
- Mobilise people.
- Uphold integrity and respect.

- Collaborate with partners and stakeholders.
- Achieve results.
- Promote innovation and guide change.

The Public Service Leadership Model provides another approach to leadership competencies. The model focuses on four key leadership competencies. They are becoming self-aware, achieving results, engaging others and leading change (McDonald *et al.*, 2020). Each of the competencies is learned by mastering the sub-competencies which are based on the most effective leadership capabilities. These include emotional intelligence, evidence-based decision-making, equitably engaging a diverse workforce, understanding the importance of technology, and encouraging innovation and creativity.

For a more continent specific approach, the African Capacity Report for Africa (2019) is significant. One of the key messages from the report is to “nurture leadership succession through inclusive capacity building exercises involving young people” (The African Capacity Building Foundation, 2019:12). This key message sends an important message to the Public Service. Leadership competencies should be developed for personal growth and applied to the Public Service environment for external value creation.

2.7.3 Sub-factor 3: Values

Values influence how decisions are motivated and strategic objectives implemented. *Values* are not just a list of [Batho Pele] principles posted somewhere in a Public Service office. Every public servant has their own set of *Values*. The research by Schmidt (2019) on cutbacks in the Netherlands makes the connection between *Values* and decision-making. For example, when the senior manager has to decide whether to let an employee go or to keep the employee in a different capacity the senior manager’s value system motivates the decision. Although this study is not about cutbacks per se, the value sets of public servants have an impact on the decision-making process. Sound decision-making results in a decrease in expenses. A decrease in expenses indicates more resources to channel elsewhere for service delivery.

The values of public servants should during service delivery be aligned to the minimum norms and standards of the Constitution. Chapter 10 of the Constitution of South Africa (1996) makes provision for an array of norms and standards applicable to the Public Service environment as in the sensible use of resources to deliver quality public services to the public. Individual values within South Africa differ substantially; thus, each individual has their own way of thinking about

how to complete a specific task. The question of how to align the individual values to norms and standards within the Constitution is somewhat ambiguous.

A culture of innovation is deemed a solution to multiple-level continuous change. One of the key difficulties within the Public Service of Canada relates to culture and values (Canadian Ninth Annual Report, 2015). Change is inevitable. Within the Public Service, change is inevitable; therefore, the institutional culture must be responsive of change. The report (2015) indicates that a culture of innovation has the properties to embrace change and thus, innovation acts as a value. From the report it is clear that, in supporting this culture of innovation, the basis of management is found in values, not in rules and regulations. It is not suggesting that the rules and regulations are insignificant, but values carry more weight.

Public Service motivation can partially be explained by job satisfaction. Job satisfaction is in essence the desire to work towards achieving objectives (Dlamini *et al.*, 2019). In addition, this satisfaction stems from specific objectives and continuous feedback. In the Public Service, motivation is obtained by all public servants working together in harmony to achieve the strategic objectives. The association between Public Service motivation and performance is not always positive. The research by Knies and Leisink (2018) positions Public Service motivation within performance. The researchers have found both positive and negative relations between motivation and performance. They indicate that by serving others public servants have the opportunity to do good which, in most cases, results in job satisfaction. Furthermore, a mostly negative link was found between red tape perceptions and performance. Motivation of public servants is fragmented and context-specific; nonetheless, the conduct of public servants is monitored.

As a bastion for service delivery, the values-based code of conduct is considered as a two-way relationship focused interaction from the public servant towards the Public Service and the public. Public servants should respect themselves, others, processes and rules and regulations. Public servants should demonstrate behaviour to increase public value at all times. In addition, public servants are called as servant leaders, to promote relationships amongst all stakeholders and demonstrate *servantship* [refer to Chapter 5].

Values are lived daily in the hearts and minds of public servants, and influence decision-making and service delivery. *Values* differ in terms of belief, culture and norms but in general, optimising performance within the Public Service, transparent behaviour is crucial.

2.7.4 Sub-factor 4: Time management

Management of activities is suggested as a *Time management* strategy. *Time management* is the perceived control of seconds, minutes, hours, days, weeks, months, years. These time units cannot be controlled, only managed. In times before timekeeping, time was calculated by the amount of available sunshine per day and seasonal changes. Today, public servants have the responsibility to manage time effectively.

Time management assists the public servant to focus on and finish the task at hand. Research by Adair (British Library, 2020) has focused on *Time management* with the emphasis on accomplishment, rather than on productivity and the completion of a task. When the focus is on the accomplishment the public servant is empowered by a vision to continue working until the task has been completed. The completion of a task is imperative, as numerous tasks are combined as the building blocks for the completion of projects and programmes within the Public Service. Self-discipline is required to accomplish a task.

Time management is not so much the management of time as it is management of the self. One of the difficulties associated with finishing a task is procrastination (Ananti & Dike, 2019). Planning is key to prevent the postponement of tasks. Once the public servant has planned a specific task or project, it is their responsibility to ensure that the plan is translated into the action steps to finish the task timeously and with the most economic use of resources. Another way in which procrastination can have a negative impact on service delivery is a delayed response which causes a weak link in the chain of events to follow. Principles of *Time management* can prevent a delayed response and resist procrastination.

The ten principles of *Time management* include the following actions (Adair, 1987):

1. Develop a personal sense of time.
2. Identify long-term goals.
3. Make medium-term plans.
4. Plan the day.
5. Make the best use of your best time.
6. Organise office work.
7. Manage meetings.

8. Delegate effectively.
9. Make use of committed time.
10. Manage your health.

Task-related information should be communicated in a timely fashion to all the stakeholders. Zdravkoski (2014:232) states that, within the work environment, quality is of the utmost importance in the implementation and finishing of a task. Both aspects have to be communicated continuously to the stakeholders. The communication is vital because it indicates whether the strategic objectives are met, and corrective measures could be implemented if deemed necessary.

Reflection can be employed as a time-saving strategy. Reflective rituals (Ungerer *et al.*, 2013) can be valuable techniques to live a balanced life. From ancient times, reflective practices have been widely used. Only after positive psychology has come to the fore have the benefits of applying psychology in the workplace gained momentum. The reason for this is because these practices help to organise thoughts, clarify reasoning and assist with planning. Reflective practices include quiet time, religious gatherings, prayer, personal journals and field journals. *Time management* results are measured with features not only linked to the actual task. The classic rationale by Adair (1987) on *Time management* where quantity of work is proportional to the satisfaction in work-life balance indicates that *Time management* requires a holistic approach. *Time management* entails the management of activities and the self. Consistency over time is crucial for success. *Time management* is vital to achieve the desired strategic objectives within the Public Service environment.

2.7.5 Sub-factor 5: Diversity management

Diversity is universally and even instantaneously recognised, but only partially respected. *Diversity management* is described as a bridge between individual differences to create a high-performance work environment (Sharma, 2019:10). Individual differences include, amongst others, religious beliefs, ethnicity, language, education, values and attitudes. This is what makes individuals unique; however, it could also create anxiety.

Different types of diversity can be identified. These different types have an impact on the public servant, the Public Service and the public. Chan (2020) identifies four diversity types which are presented in Table 2-9 below.

Table 2-9: Diversity types

Diversity type	Description
Internal diversity	Related to birth; e.g., age, race, gender, abilities (cannot be controlled)
External diversity	Beyond the individual; e.g., family status, education, interests (can be influenced)
Workplace diversity	Diversity with an impact on individual; e.g., job description, job level, office location
Worldview	Factors that are observed, felt and experienced; e.g., cultural events, historical knowledge

Diversity creates challenges within the work environment and illuminates the characteristics that indicate how one individual differs from the next (Bruhns, 2017:2). Diversity within the Public Service refers to the different features among individuals, groups and other stakeholders. These differences create possible tension between them. If escalated, this tension could have a negative effect on the cohesion found in the Public Service. Cohesion between public servants within the Public Service unit or department has the probability that high-performance work teams are formed. Sharma (2019) identifies benefits flowing from successful diversity management interventions for the individual and the business processes as well as external stakeholders. The benefits of interest for this study are presented in Table 2-10 below (Sharma, 2019).

Table 2-10: Benefits of Diversity management

Benefits for the public servant	External benefits
Job satisfaction	Improved work environment
Conducive work environment	Groupthink
Lower stress	Increase in creativity
Sense of belonging	More innovation
	Improved communication
	Stronger relationships

Diversity management in Africa could be improved. The research by Akobo and Damisah (2018) suggests that a few, if any, strategies per African country on how to manage diversity exist. Thus, the delivery of public services is hampered and a deficiency of available positions follows. The researchers go on to indicate that for South Africa, ethnic group and gender have been identified as elements of *Diversity management* (Akobo & Damisah, 2018). These elements need more consideration. A global citizen approach to *Diversity management* could be beneficial to South

Africa and other African countries. A global citizen respects the diversity within the Public Service unit and department, and has a vision to think with creativity and innovation in order to solve complex problems. This global citizen works in conjunction with other public servants in high-performance teams which are created when diversity is embraced with mutual respect focused internally, externally, within the workplace and globally. South Africa has a diverse workforce. By acknowledging and respecting the diversity within the Public Service, public servants can work together as global citizens to achieve strategic objectives.

The five sub-factors related to the People management factor, namely *Human resource management*, *Leadership development*, *Values*, *Time management* and *Diversity management* have been discussed within the Public Service context. These sub-factors describe *whom* the Public Service manages.

2.8 Factor 5: Skills management

Once capable public servants have been appointed to serve the public, they are equipped with essential skills in order to achieve the task at hand. These skills are managed and retained in order to align the combined efforts of all stakeholders to achieve the desired results. Public well-being is possible now and in the future when planning is in place and capacity and skills are developed (Mollo, 2013). In other words, Skills management is a prerequisite for public well-being. The factor Skills management describes with which skills the Public Service will manage public servants to serve the public.

Skills management consists of four sub-factors, namely:

- *Level of available skills*
- *Training and development*
- *Decision-making skills*
- *Skills for the future*

2.8.1 Sub-factor 1: Level of available skills

The *Level of available skills* is a finger on the pulse measurement or gauge to determine the current status of skills within the Public Service. The current status of the *Level of available skills* on municipal level is below par. The research by Van der Walddt *et al.* (2018) on technical skills within municipalities has confirmed the skills shortage in the technical discipline of the Public Service. Although the research has been conducted at municipal level, it incorporates all nine

provinces. The researchers suggest that skills development is necessary to foster a sense of purpose for public servants. Management within the Public Service could be improved by the development of technical skills. For example, when technical skills improve, the outcomes in terms of *Time management* and decision-making will also expand. Less time will be spent on repairs and more time will be available for the needed maintenance. When attention is paid to the public servant and a sense of purpose is imbedded, the natural flow is a more content individual; thus, job satisfaction could also increase.

The level of skills can be linked to performance. The research by Kruijnen and Van Genugten (2020) has identified competencies from (and for) public servants. These skills can be classified as Public Administration, New Public Management, New Public Governance and a combination of various other clusters. The clustering of skills indicates an underlying tone of academic thinking as well as correspondence with the current challenges found within the Public Service. Given the poor municipal skills level mentioned above, it could be derived that performance is not adequate. Changes are needed.

The OECD (2017) recognises four areas to assess the changes in the *Level of available skills*. These areas are as follows:

- Policy advice and analysis
- Delivery of services and interaction with the public
- Commissioning and contracts
- Networking

These areas, each with specific tasks and skills requirements, influence public value.

South Africa, and in particular the Public Service, experience numerous challenges. Mollo (2013) is of the opinion that South Africa has various challenges such as high unemployment and poverty. It has been found, according to Mollo (2013) that these challenges can be confronted by a Public Service with skilled, professional and committed public servants. When the challenges are confronted with success, the result will be that public servants can focus their attention on achieving the strategic objectives.

These challenges could be addressed with effective management within the Public Service. Chabane (2015) supports this by stating that “[F]or us to succeed, we require well-run and effectively coordinated state institutions with skilled public servants who are committed to serving our people” (Chabane, 2015:39).

In addition to the challenges, some skills are in high demand. The research conducted by PwC (Ashiagbor, 2014) examined the Public Service in Africa with a focus on human capital strategies. It was found that, for example, entrepreneurial skills were in demand in Africa. These findings were supported by Modiba (2019:393) who added that service delivery was negatively impacted as a result of non-alignment. Consequently, alignment was required to improve service delivery which required more entrepreneurial skills.

Strategic planning entails the focused orientation of objectives and skills (Bryson & George, 2020:2). In other words, skills should be placed firmly in line with the strategic planning. The emphasis is on current (and future) skills. The *Level of available skills* within the Public Service has to align with the strategic objectives to deliver quality services to the public.

2.8.2 Sub-factor 2: Training and development

Once the *Level of available skills* has been determined, *Training and development* are required to uplift the public servants in pursuit of *Serving the public*. *Training and development* can be described as any learning opportunities, whether formal (as in a three-day workshop) or informal (as in a senior public servant ‘teaching’ a more efficient way of completing a task). The *Training and development* both have to influence the thinking of the public servant. A more business orientation towards *Training and development* is deemed fit, as described by Lethoko (2014). The suggestion for MBA qualifications was therefore made. A business approach could be beneficial; however, a focus on *Serving the public* is the number one priority.

Application of *Training and development* is more important than the intervention itself. Vil-Nkomo (2013) underscores that *Training and development* are associated with the desired solutions. In other words, *Training and development* should lead to higher performance and the delivery of quality services. During the same time, Mollo (2013) indicates concern with non-compulsory training. Training interventions are based on individual preferences rather than on what the Public Service requires.

The National School of Government (NSG) fulfils a particular role within the *Training and development* domain. This School is seen as an all-inclusive *Training and development* service provider with a long-term focus (Chabane, 2015). Similarly, as training provider for the state, the NSG is at the forefront of developing the Public Service to achieve the sustainable development outcomes (NSG, 2020).

Training and development are vital for the functioning of the Public Service. Increased productivity is one of the main reasons for *Training and development* interventions (Mabugu & Dawood, 2015). From the research it is evident that efficiency is expected from these interventions, and

compensation is suggested for public servants who intervene in the quality of service delivery. As a result, the budget could be adapted with room for additional spending in other challenging situations.

Another reason for *Training and development* is the responsibility each public servant has as a steward of public resources (Hlongwane, 2018:123). As a steward, fruitless and wasteful spending cannot be an option, since public resources are intended for application by public servants to result in public good.

The outcome from *Training and development* is two-fold. *Training and development* do not only benefit the Public Service in the sense that the public servant is more productive, but *Training and development* are also valuable for the personal growth of the public servant. The public servant can apply these newly obtained skills in situations outside of the Public Service as well. This will in turn improve the public servant's community. *Training and development* of public servants are the cornerstones of the quality of decisions made today and for tomorrow.

2.8.3 Sub-factor 3: Decision-making skills

Decision-making is vital in all situations, especially in the current fast-paced competitive world. Making quality decisions is both very important and very difficult (Association of International Certified Professional Accountants, 2017:3). Decision-making involves more than just a quick plan-do-act exercise. Holzer and Schwester (2011:138) list the decision-making process as follows:

- Pinpointing the problem
- Identifying causes
- Setting objectives
- Formulating alternative courses of action
- Evaluating alternatives against organisational objectives
- Choosing the best course of action
- Implementing and evaluating the decision

A public servant can use this process to support the day-to-day choices as well as the long-term decisions.

Decision-making is in principle part of strategic objectives. Decision-making is vital for planning and budgeting within the Public Service (Muchiru, 2014). Decisions are based on the predetermined strategies. Decisions influence timely actions and result in valuable outcomes but can also be influenced by elements that are not related to the decisions. Components from outside the Public Service have an impact on decision-making; for example, leadership, culture and perceptions (Olivier, 2015).

Collaboration with all stakeholders is necessary to bring the focus back to serving the public. As a steward of public resources, the public servant makes choices which have long-term effects (Hlongwane, 2018:120). In addition, these decisions are justifiable and ethical in nature.

Decision-making is not limited to everyday [seemingly] insignificant choices, but the building blocks of public value. As a decision-maker to optimise public value, the public servant should consider the following behaviours (OECD, 2019):

- Decide on the best possible sequence of actions.
- Incorporate values valuable to the future in the current decision-making process.
- Collaborate with the public and work through difficult times.
- Learn to adapt to new ideas and situations.

Decision-making skills are used in the day-to-day functioning and the long-term planning of the Public Service. Without *Decision-making skills* the public servant is stuck between available resources and the needs of the public and does nothing.

2.8.4 Sub-factor 4: Skills for the future

The future brings uncertainty to the Public Service. Planning for the unknown by developing *Skills for the future* could assist the public servant and manager to think about possible scenarios. In the current Decade of Action, advancements have been made to digitise governments, but although the mindset and the outlook are global, the needs of the public are still on local and national level (Zhenmin, 2020). The main focus of the Public Service is to provide quality services to the public, with or without digitisation.

The public servant of the future strives for work-life balance. Leaders with a future focus provide energy to the team incorporating hardware (structural changes) and software changes (leadership influences) which promote agility (Ashiagbor, 2014). In addition, this leader has vision, values relationships, fosters trust and remains a key participant from beginning to the end. Muchiro

(2014) supports this view and adds that these key skills are already established in the future-focused Public Service. A future-focused Public Service is characterised by the efficient and effective use of resources. In both cases this fosters a work-life balance.

Other skills associated with work-life balance include emotional intelligence and agility. Jali-Khaile (2014:26) stresses that emotional intelligence has the potential to further enhance an already high-performance culture. Stated differently, emotional intelligence brings an individual and group calmness.

A virtual way of work brings new challenges to the Public Service environment. This is as a result of digitalisation and datafication (OECD, 2019). The use of social media within the workplace has also been debated. Specialised skills accompanying the cyber era may seem intangible, but have a real impact on service delivery. The future Public Service could include blockchain ledgers. Public servants are expected to lead virtual teams. Creativity is a skill of the future that has stood the test of time. The research by Allahar (2018) provides a holistic perspective on how creativity leads to innovation and in the end results in sustainability. In other words, it is suggested that a public servant uses creativity to solve complex problems.

Although the future is uncertain, various *Skills for the future* could assist the Public Service to prepare for possible scenarios.

The four sub-factors related to the Skills management factor, namely *Level of available skills*, *Training and development*, *Decision-making skills* and *Skills for the future* have been discussed within the Public Service environment. These sub-factors describe with which skills the Public Service will manage public servants to serve the public.

2.9 The Canadian management framework

For this study, the singular most important management framework to acknowledge is the Management Accountability Framework (MAF) from Canada. MAF is considered a framework for management excellence for entities which are functioning optimally (Treasury Board of Canada Secretariat, 2020.)

The Management Accountability Framework is presented in Figure 2-2 below.

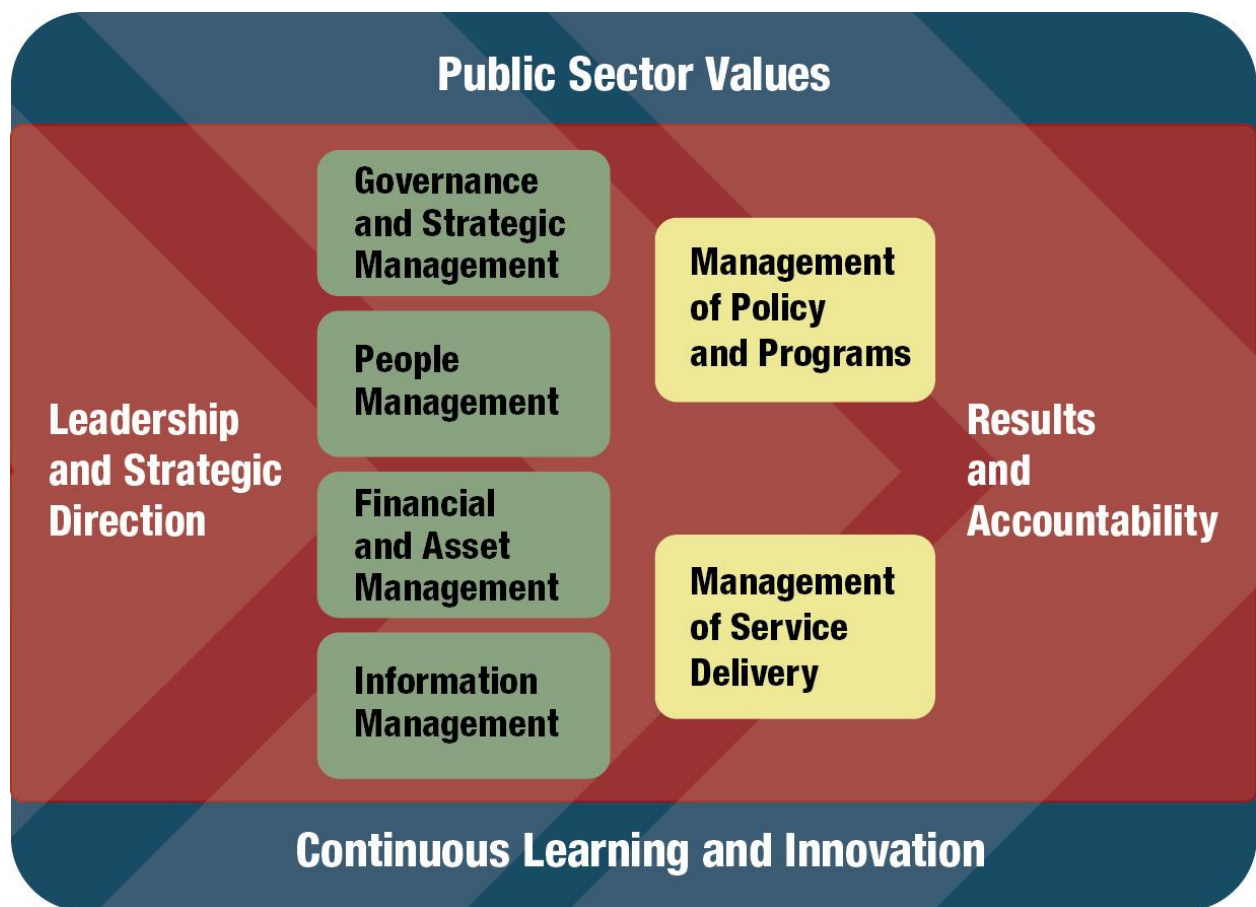


Figure 2-2: The Management Accountability Framework

For this study, each of the components are acknowledged in terms of how to improve management through strong organisational performance within the Public Service.

2.10 Summary

This chapter consisted of seven bodies of literature. As an introduction to the chapter, a body of literature introduced the most influential work from the fathers of management. This was followed by five bodies of literature which can be associated with the five factors, namely Business management, Financial management, Governance, People management and Skills management. For each of the factors, four to five sub-factors were identified and subsequently discussed. The MAF from Canada was also presented.

The literature presented in this chapter provides the groundwork on effective management within the Public Service of developed and developing countries. These studies provide important insights into the factors and sub-factors identified to improve management. To conclude this

chapter, which focuses predominantly on literature over the past eight years, the main objective of the study comes to mind, namely to develop a framework for effective management in the Public Service of South Africa.

In Chapter 3, the focus will shift from the literature to the research design.

CHAPTER 3 RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides the research approach, research design, data gathering methods, proposed analysis, validation and lastly, ethical considerations that have been utilised for this study. The following secondary research objectives have been explored:

- Research objective 1: To identify the factors and sub-factors that contribute most significantly towards effective management within the Public Service of South Africa.
- Research objective 2: To explore the difference of the perceptions between those in policy (DHET) versus those in practice (HEI).
- Research objective 3: To identify a few lessons on effective management that could be learned from the Public Service of Canada.

3.2 Research approach

A sequential mixed-methods approach has been followed to realise the main research objective of this study which is to develop a framework for effective management within the Public Service of South Africa. Taken into account that the Public Service environment is of a complex nature and that this study is multi-level-oriented, a mixed-methods approach is deemed the best fit (Creswell, 2013; Raimondo & Newcomer, 2017). One of the reasons to mix quantitative and qualitative research methods is to examine the development of the results from quantitative to qualitative methods which will result in a more holistic understanding of the research (Greene *et al.*, 1989:259). Before proceeding to the research design, the worldview for this study requires attention.

3.2.1 Pragmatic worldview

The holistic or multi-level research problem explored in this study is best analysed from a pragmatic worldview. Pragmatism can be defined as a worldview which “arises out of actions, situations, and consequences rather than antecedent conditions, as in post-positivism” (Creswell, 2013:11). Stated differently, the research problem is viewed from the action-oriented perspective in an attempt to provide solutions. For this study, the development of a management framework could guide policy makers, public managers and public servants to improve management within the Public Service by conscious actions, making decisions and finding solutions to problems.

A philosophical basis of research pragmatism is provided by Creswell (2013:11) when he combines his own ideas and draws from the ideas from Cherryholmes (1992) and Morgan (2007). Extractions from the combined view of these authors on pragmatism can be applied to this study as follows:

- A pragmatic perspective is not bound only to one philosophy or reality. In the case of mixed-methods research, such as this study the researcher utilises beliefs from both quantitative and qualitative viewpoints to interact with the research.
- A pragmatic perspective has the added benefit in that the researcher can decide the methods, techniques and research course of action which is the best fit to the researcher's needs and the research objectives of the project.

For this mixed-methods study, the pragmatic worldview keeps the focus on the practical or logical and explores solutions to problems rather than focusing predominantly on the problems or ideology. Within the Public Service environment, the natural state of mind tends to focus on a problem e.g. ineffective service delivery at a publicly funded university, rather than shifting attention to improving a key component within the larger Public Service ecosystem which could have a domino effect to influence the delivery of quality public services within public funded Higher Education.

3.3 Research design

Deductive logic has been followed in this sequential mixed-methods approach to answer the research question of this study. Phase 1 consists of the quantitative research design and Phase 2 consists of the qualitative research design. The results obtained from the research designs in Phase 1 and Phase 2 will be combined in Chapter 5 to assist the researcher to develop a framework for effective management within the Public Service of South Africa.

PHASE 1: QUANTITATIVE RESEARCH DESIGN

The quantitative research design for this study consists of the following: population, sampling and data gathering methods.

3.3.1 Population for quantitative research

The population for the quantitative research component of this study includes respondents from multi-entities within the Public Service of South Africa, including DHET and HEI respondents. Meier, Brudney and Bohte (2006) define a population as the set of items of relevance. For this

study, the respondents included employees with management and supportive experience within the Public Service. Skinner *et al.* (2013:81) add that the population should be specified. Once the population is specified, the research can commence.

Perhaps a bit over-ambitiously, the researcher wanted to conduct research on effective management within three departments (Health, Higher Education and Transport) of the Public Service in Canada, France and South Africa. In the end, the population was limited to service delivery in the higher education sector of South Africa and Canada.

3.3.2 Sampling for quantitative research

Ideally, the sample represents the population. A sample is considered a subsection of a population (Meier, Brudney & Bohte, 2006). In this study, the population is distributed over three continents. Maree and Pietersen (2016:197) propose that non-probability sampling methods such as convenience and snowball sampling are of value for a widely distributed population. Therefore, a convenience and snowball sample were deemed the most suitable for this study.

3.3.3 Data gathering methods for quantitative research

Data were gathered from multiple sources in various timeframes between March 2019 and December 2019. The perceptions of those in policy formulation and those in policy implementation on how management within the Public Service could improve, were assessed by means of a questionnaire. A 25-point questionnaire was constructed from literature relevant to management and the Public Service environment in order to realise the research objectives.

The questionnaire started by requesting biographical information. The biographical information in a questionnaire gives a face to the participants because respondents could be categorised or grouped together. The categories included Country, Department, Job level, Main responsibility in the Public Service, Years in current position, Total amount of years within Public Service and the Highest qualification obtained.

The Likert-type scale provided the following options per statement:

1	2	3	4
Strongly agree			
			Strongly disagree

Each statement in the questionnaire could be linked to the literature in the previous chapter as well as to the research objectives. In the final question, the respondents were requested to rank

the factors that had contributed to effective management in order of importance (forced ranking). The questionnaire was also translated into French by a sworn translator for the preference of French-speaking respondents in Canada and France.

3.3.3.1 Research in Canada and France

To conduct research in Canada and France, the researcher travelled to Ottawa, Canada, and Paris, France, during November 2018. Prior to travelling, the researcher employed a French-speaking administrative assistant to assist with appointments and correspondence to potential respondents. The researcher made contact with the national or federal government departments of Health, Higher Education and Transport in Canada and France.

The following agencies and associations were also contacted for assistance during the data gathering process in person, per telephone, via email and Skype for assistance with the research:

Assistance requested for research in Canada

- Management professors at the Telfer School of Management, University of Ottawa
- Professor at the Centre of Governance, University of Ottawa
- Professor at the University of Ontario
- Professors at the Sprott School of Business, University of Carleton, Ottawa
- Board members of the Institute of Public Administration of Canada: National Capital Regional, Ottawa
- Executive at the Institute on Governance, Ottawa
- The Commonwealth Association for Public Administration and Management: Senior executive
- Policy advisors within the Public Service of Canada in different regions and territories
- Senior executive at one of the research councils of Canada
- Faculty at the University of Toronto
- The Canada-Africa Chamber of Business, Toronto
- The South African Consulate-General, Toronto
- Various executives at the South African embassy in Canada, Ottawa
- The South African Association of Public Administration and Management
- Various academics and experts in the field of management, global leadership and systems thinking

- The National Research Foundation, South Africa
- The High Commission of Canada to South Africa, Pretoria
- The African Association for Public Administration and Management (AAPAM), Nairobi, Kenya
- Executive at the Southern Africa Canada Chamber of Commerce, Johannesburg

Assistance requested for research in France

- Embassy of South Africa in Paris, France
- Delegation for European and International Affairs of the Ministry of Solidarity and Health
- Manager at the Ministry of Ecology, Sustainable Development and Energy (Transport)
- Public governance official for the OECD, Paris
- Executive from the International Transport Forum at the OECD
- Delegation for European and International Affairs (DAEI), France
- Professor in Transport, contacted in Paris
- French embassy in South Africa, Pretoria
- International Education Association of South Africa (IEASA)
- Various academics and business experts in the fields of transport, health and higher education management
- Director of trust for HEI funding at a South African university
- French South African Chamber of Commerce and Industry, Johannesburg

The researcher experienced various difficulties during the data gathering process in Canada and France. In France, the researcher experienced many difficulties, particularly because the yellow-vest protests were at one of the peaks during that time in Paris. Train and bus services were delayed or cancelled which hampered the researcher's ability to conduct research. Security at government offices was very high. Proposed appointments were cancelled. Some of the other difficulties that the researcher experienced in Canada and France included uncertainty on the receiver's part that the researcher was not a government official; executives were not willing to meet with the researcher; a language barrier (especially in France); extensive waiting times to respond to emails; security-related inquiries (France in particular); limited number of responses; confidentiality of government management systems; questions on when the rest of the research team would join and whether it would be a three- or five-year research project.

Some of the most important interactions with Public Service officials, business experts and management professors are listed below (extracted from the researcher's field journal; see 3.9 Field notes):

In Canada the most important interactions were as follows:

- In the meeting with one of the professors at the Sprott School of Business at the University of Carleton in Ottawa, technical aspects of the questionnaire were adapted to make the questionnaire more acceptable for the Canadian population.
- In the meeting with one of the board members of the Institute of Public Administration of Canada in Ottawa, the researcher gained a better understanding of the management style of Canadians within the Public Service of Canada.
- In the meeting with two professors at the Telfer School of Management at the University of Ottawa, the scope of this study and its application of management within the Public Service of Canada was discussed. Valuable input was obtained by the researcher on how to proceed with data gathering in Canada. Assistance from the school pertaining to the distribution of the questionnaire was requested. The questionnaire was to be distributed to possible respondents (30 respondents had already been identified) from the alumni list of the Telfer School of Management.
- In the meeting with the team leader and advisor to the Minister of Transport at the head office of Transport Canada at 330 Sparks Street in Ottawa, the team leader was very interested in the research and assured the researcher that the necessary steps were to be followed to distribute the request for research to the entire federal transport entity.
- In the meeting with one of the professors at the Centre of Governance at the University of Ottawa, the researcher was asked how it was possible for her to obtain a meeting with the team leader and advisor to the Minister of Transport at the head office, since the professor was awaiting feedback for research to be conducted at federal level for the previous three months.

In France the most important interaction was as follows:

- A meeting was obtained with one of the senior executives at the Ministry of Ecological and Inclusive Transition [Department of Transport] at the Grande Arche de La Défense, Sequoia Tower in Paris. This executive declined the request to conduct research within the department. During the meeting information on the overall management of the transportation division of the department was provided.

3.3.3.2 Research conducted in South Africa

The Department of Health and the Department of Transport declined participation in the research. Upon the researcher's request for a formal letter to communicate this decline, the respective representatives indicated that the departments would not provide the researcher with such a letter. No reason was provided to explain the reasoning behind the refusal to participate.

Upon request, the procedures of this study were approved by the DHET. The department assisted the researcher by distributing an email to the branch coordinators in each branch with the request to participate in the research. In most of the cases the branch coordinators included the researcher in the corresponding email to potential respondents. Similarly, respondents from HEIs were contacted by the researcher to request participation. When inviting the participants, the purpose of the research was clearly explained by an attached introductory letter. Follow-up emails were sent to potential respondents. The researcher also made use of the professional network LinkedIn to follow up with some respondents.

It is important to note that the DHET, as an authoritative entity, has requested a disclaimer from the researcher. Although the data in this study have been obtained with permission from the DHET (as an entity) and from the respondents (individually), the respondents are either employed at the DHET or related as stakeholders. Therefore, the findings and recommendations of this study do not represent the views of the DHET as an entity, but of the individuals. The department has indicated a research interest in the findings of this study upon completion.

During the data gathering process a lack of responses from the DHET at that point in time had the likelihood to weaken or perhaps result in the termination of the entire study. Due to a lack of responses and the anticipated challenges from a small sample size a decision was made to include HEI respondents in South Africa based on resource dependency theory. Hillman *et al.* (2009:1404) have reviewed resource dependency theory and cited "to understand the behaviour of an organization you must understand the context of that behaviour – that is, the ecology of the organization" (Pfeffer & Salancik, 1978). In other words, there is a dependency from one entity, for example the DHET, toward another, for example HEIs, which influences the behaviour in both entities. Similarly, the DHET 'depends' on HEIs for the implementation of policies and HEIs 'depend' on the DHET for funding; therefore, the data gathered from the respondents in the DHET and HEIs can be compared to realise the research objectives of this study.

The original questionnaire was used without modifications for the HEI respondents. During the data gathering process some of the respondents from HEIs, especially academics, asked assistance from the researcher to clarify the Main responsibility category. The researcher assisted

with such requests. Typically, with respondents from HEIs, lecturers would indicate Middle management for Job Level and Education for their Main responsibility within the Public Service.

Once the respondents had been identified and the questionnaire constructed, the respondents were invited to participate in the research. Participation was voluntary. Once the researcher had obtained 151 completed questionnaires, a decision was made to finalise the data gathering process. Guadagnoli and Velicer (1988) suggest a sample size of 150 observations to apply factor analysis. Participants were thanked for their time and effort to complete the questionnaire. Respondents were able to indicate their interest in the findings of this study. The researcher accepted the responsibility to provide feedback.

3.4 Proposed statistical analysis for quantitative research

A logical flow from research objectives 1 and 2 to the research results was achieved by conducting descriptive statistical analyses. Data management and analysis were performed using SPSS version 25 with assistance from a statistics professional. The following statistical analyses were proposed to summarise, describe and evaluate the data:

- The construct validity of the items for each of the five dimensions was assessed by means of factor analysis. The purpose of factor analysis is to identify which factors cluster or group together (Pietersen & Maree, 2016:242).
- Descriptive statistics to organise and summarise the data (Pietersen & Maree, 2016:204) were utilised to describe the obtained numerical data.
- The independent t-tests were applied to the data (such as scores from the DHET and HEI respondents) to compare two means of a metric variable (Pietersen & Maree, 2016:294).
- ANOVA (analysis of variance) is used when the researcher wants to compare two or more independent groups (e.g., from Job level, Main responsibility, Years in current position, Total number of years in the Public Service and Highest qualification) in terms of a single quantitative measure or score (Pietersen & Maree, 2016:262).

3.5 Reliability of the quantitative research

Reliability ensures that the research is repeatable (to a certain extent) by another researcher. When an instrument yields similar results under similar circumstances, the instrument is considered reliable (Pietersen & Maree, 2016:238). In other words, if the same individuals are measured under the same conditions, a reliable measurement will result in an identical or nearly identical outcome. Internal reliability for this study was calculated using Cronbach's alpha.

3.6 Validity of the quantitative research

The measurement of validity of quantitative research within the human sciences is considered more challenging than measuring an exact science. Human emotions play an intricate role; for example, in this study when the perceptions on effective management are assessed. Validity is achieved when an instrument measures what it intends to measure (Pietersen & Maree, 2016:239). Different types of validity exist.

In this study, validity will be considered with regard to the following types (Pietersen & Maree, 2016:240):

- Construct validity refers to whether the instrument measures the constructs as it intended to measure (See Factor analysis in Proposed statistical analyses above.)
- Face validity refers to the extent to which an instrument seems valid.
- Content validity refers to the extent to which the instrument represents the complete content of the theoretical construct.

For this study, an executive within the Public Service of South Africa, a manager at provincial level and a language expert were asked for their comments on the questionnaire and interview questions. The researcher made the necessary corrections to ensure face and content validity of the instruments before the questionnaire was finalised.

So far, this study has focused on the quantitative research component in Phase 1. The following section will discuss the qualitative research component in Phase 2.

PHASE 2: QUALITATIVE RESEARCH DESIGN

3.7 Research design and data gathering method

The qualitative research design and data gathering method for this study are now considered with reference to the highlights of the 2019 PSES (Public Service Employee Survey) and the elite interviews.

3.7.1 Highlights of the 2019 PSES

The highlights of the 2019 PSES is considered a secondary data source to this study. The highlights were obtained from the websites of the Treasury Board of Canada Secretariat and Statistics Canada. The highlights of the 2019 PSES is a condensed representation of the existing

themes which were identified in the results of the 2019 PSES. The Treasury Board of Canada Secretariat indicates that 182 306 employees (Treasury Board Secretariat, 2020) have completed the questionnaire.

3.7.2 Elite interviews

This study used purposeful sampling to identify three participants with extensive knowledge of management within the Public Service of Canada for elite interviews. These participants did not form part of the sample for the quantitative research. These participants were populated by means of purposeful sampling methods from the service delivery environment within the Canadian higher education sector. Given their fields of expertise (Criterion 1: Management and Public Service Environment) and years of experience (Criterion 2: More Than 15 Years in the Public Service of Canada or South Africa), they matched the criteria as set out by the researcher and were deemed suitable candidates for elite interviews.

Prior to the elite interviews, the participants received an introductory letter stating the purpose of the interview, and a request for informed consent was made. The three elite interviews were held during January and February 2020 at mutually convenient times for the interviewee [not considered a participant any longer, but now an interviewee] and the researcher. The time difference between South Africa and Canada was taken into consideration when the interviews were scheduled.

The interview questions were adapted from the semi-structured interviews on improving the effectiveness of funding agencies in the science sector conducted by Ramoutar-Prieschl (2015:340-342). Data were collected using semi-structured interviews. Two of the interviews were conducted via audio technique (one Skype audio call and an international phone call), whereas the third interviewee preferred to answer the interview questions via email. During the audio interviews the data were recorded with permission from the interviewee on a digital audio recorder. The interviews were transcribed verbatim by the researcher. The researcher checked the two transcripts for accuracy and returned them to the interviewees for any changes or comments. Minor changes were made by the interviewees. The transcripts and the email interview document were then coded manually by the researcher in preparation of the thematic analysis. Interviewees were thanked for their time and effort to take part in the qualitative research component of this study.

3.8 Proposed thematic analysis

Thematic analysis is considered a valuable technique used in qualitative research design. It is considered the principal technique of qualitative analysis (Braun & Clarke, 2006:78). For this

study, thematic analysis is proposed for application to the highlights of the 2019 PSES and the elite interviews.

Thematic analysis is defined as a technique which is used to identify, analyse and report patterns or themes from data (Braun & Clarke, 2006:79). In some cases, themes could develop earlier. Vaismoradi and Snelgrove (2019) are of the opinion that theme development commences once the focus of the study has been determined. In this study, theme development commences once the research objectives has been identified.

Theme identification and theme generation relate to research objective 3. A structured format has been obtained from the perspectives, knowledge and values of qualitative data by identifying, analysing and reporting patterns or themes, as per the definition of thematic analysis by Braun and Clarke (2006). An inductive approach, following six-phase process of Braun and Clarke (2006), will be applied to the primary (elite interviews) and secondary (highlights of the 2019 PSES) data.

3.9 Field notes

The researcher recorded field notes in a field journal throughout the research journey. Qualitative field notes are considered as an extremely important element in thoroughly conducted research (Phillippi & Lauderdal, 2018:381). These authors mention similar work by Creswell *et al.*, (2003). One of the functions of field notes is abundant descriptions of the context, interviews and contextual data from documents (Phillippi & Lauderdal, 2018). Descriptions within the field journal were updated to keep record of information and contextual data relevant to the research objectives of this study.

The field journal was utilised in a reflective capacity during the quantitative component of this study. The researcher made notes of meetings with experts in the field and decisions that had been made. In reflecting on questions or difficulties that arose during the research timeframe the researcher was able to process and clarify these concerns in a logical manner.

In the qualitative component of this study, the field journal was very helpful for clarification of thoughts. The use of fieldnotes during the interview phase of this study was a key foundation of thematic analysis. A field journal was kept by the researcher to make notes of underlying nuances during the interviews as well as notes taken after the interviews. To keep track during the coding of the interviews and highlights of the 2019 PSES the researcher wrote fieldnotes. The researcher was able to note the point of data saturation when no new codes were identified from the data. In addition, the field journal assisted the researcher to take notes on the differences and similarities

between the DHET and HEI respondents. Some suggestions for future research were also noted in the field journal and will be presented in Chapter 5.

3.10 Validation and trustworthiness of qualitative research

For the qualitative research component of this study, validation, transferability and credibility were considered. Validation requires open and transparent research procedures, as well as a clear audit trail of decisions and interpretations made throughout the research process (Nieuwenhuis, 2016:122). During this study the researcher kept a field journal with notes on the decisions that had been made and interpretations from the results. The most important notes from the field journal to realise the research objectives were added to this study.

Trustworthiness was achieved through credibility, transferability, dependability and confirmability for this study, according to Guba (cited by Nieuwenhuis, 2016:123) as follows:

- **Credibility:** During this study the researcher provided thick descriptions of research processes and findings for the attention of superiors. The researcher kept a field journal with reflective notes.
- **Transferability:** To realise transferability of this study the context (or environment) of the study the participants and the research design were presented in as much as possible detail. By purposeful selecting the sampling for elite interviews, transferability was increased.
- **Dependability:** To follow a logical reasoning for this study the field journal assisted the researcher not only during the data collection process but also for data analysis purposes.
- **Confirmability:** As originally described by Lincoln and Guba (1985) the degree of neutrality was taken into consideration. The researcher faced difficulties during the data collection process. Some of these difficulties are considered limitations to this study.

3.11 Ethical considerations for quantitative and qualitative research

Research and ethical conduct walk hand in hand. The protection of participants' identities is of central importance in any research endeavour (Maree, 2016:44). For the quantitative and qualitative research components of this study the researcher took responsibility, as far as possible, for the following ethical aspects:

- Confidentiality: protecting the identities of the respondents (quantitative data gathering) and interviewees (qualitative data gathering) by coding names and data sources, e.g. questionnaires and interview transcripts.
- Informed consent: the respondents and interviewees were informed about the purpose of the research prior to the commencement of the research.
- Voluntary participation: the respondents and interviewees could terminate their participation at any given time of the research process.
- Respect toward respondents and interviewees: the researcher had no intent to harm respondents and interviewees in any way whatsoever. The researcher was thankful for the participation by the respondents and interviewees.

3.12 Summary

This chapter described the sequential mixed-methods approach used in this study. Given various barriers to effective management, the complex nature of the Public Service environment and the multi-level orientation, a mixed-methods approach with a pragmatic worldview was applied to realise the research objectives of this study.

The research design followed two sequential phases, namely Phase 1, the quantitative research component and Phase 2, the qualitative research component. In Phase 1, the perceptions of 151 respondents from the DHET and HEIs in South Africa on effective management within the Public Service of South Africa were assessed. Descriptive statistical analysis was applied to the quantitative data. In Phase 2, the highlights of the 2019 PSES was incorporated with the unique perspectives from interviews with three purposefully selected participants on how management within the Public Service of Canada can be improved. Thematic analysis was applied to the qualitative data.

A summary of the sequential mixed-methods approach of the two-phase process is presented in Table 3-1 below.

Table 3-1: Summary of sequential mixed-methods approach

Sequential mixed-methods approach	Phase 1 Quantitative research design	Phase 2 Qualitative research design
Research objectives	1. To identify the factors and sub-factors that contribute most significantly towards effective management within the Public Service of South Africa 2. To explore the difference of the perceptions between those in policy (DHET) versus those in practice (HEIs)	3. To identify a few lessons on effective management that could be learned from the Public Service of Canada
Data source (type of data)	Literature for the development of the questionnaire (Secondary) Perceptions of DHET and HEI respondents in South Africa (Primary)	Highlights of 2019 PSES (Secondary) Perspectives from purposefully selected experts in the Public Service of Canada (Primary)
Data collection	Questionnaire: Online Questionnaire: Pen and paper method	Highlights of 2019 PSES Elite interviews
Data analysis	Statistical analysis	Thematic analysis
Presentation of results	Chapter 4: Section A	Chapter 4: Section B
Validation	Reliability Validity	Validation Trustworthiness
Ethical considerations	Related to questionnaire	Related to interviews
Interpretation of results	Chapter 5	Chapter 5

This chapter has described the methods used in this two-phase process. The next chapter presents the findings for this study.

CHAPTER 4 RESULTS

4.1 Introduction

This chapter presents the results of the explanatory sequential mixed-methods approach that was followed to gather and analyse data to realise the research objectives of this study. The main objective of this study is to develop a framework for effective management in the Public Service of South Africa. This management framework is considered the significant original contribution to knowledge.

The secondary research objectives as listed below provide a systematic order in which the results will be presented in this chapter:

- Research objective 1: To identify the factors and sub-factors that contribute most significantly towards effective management within the Public Service of South Africa
- Research objective 2: To explore the difference of the perceptions between those in policy (DHET) versus those in practice (HEIs)
- Research objective 3: To identify a few lessons on effective management that could be learned from the Public Service of Canada.

The results will be presented in two sections. Section A consists of the quantitative data analysis which will be applied for research objective 1 and research objective 2. Section B consists of the qualitative data analysis which will be applied for research objective 3. Only the most relevant results will be presented in text, tables and figures. These results will assist the researcher to realise the research objectives.

SECTION A: QUANTITATIVE DATA ANALYSIS

The results pertaining to research objective 1 will now be presented. To comprehend the context for the quantitative data analysis, the demographic frequencies of the sample require consideration.

4.2 Demographic frequencies

The biographical information of any questionnaire gives a face to the respondents. The respondents can be grouped together and the results presented accordingly. The following sub-headings categorise and provide order to the demographic frequencies: Group number, Job level,

Main responsibility, Years in current position, Total years in Public Service and the Highest qualification obtained. Each of these demographic frequencies will now be discussed.

4.2.1 Two main groups

In total, 151 respondents completed the questionnaire. Respondents were divided into two distinct groups, namely respondents from the DHET and respondents from various publicly funded HEIs in South Africa. Figure 4-1 below presents the respondents in percentages according to the two groups.

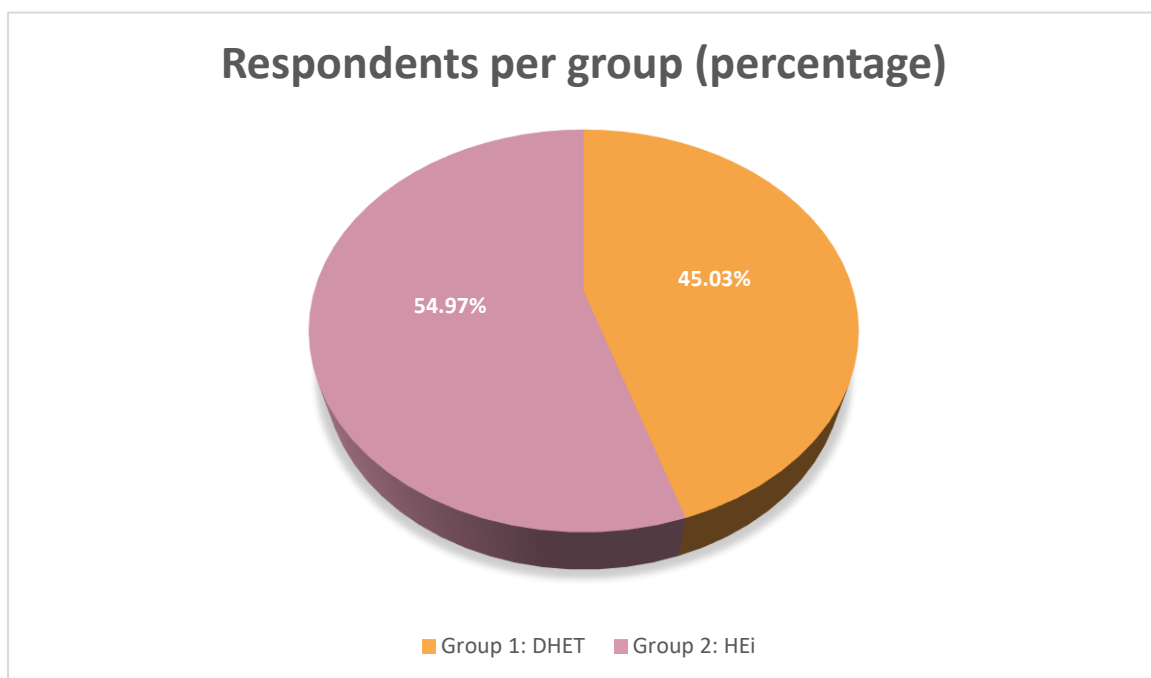


Figure 4-1: Two groups of respondents

From the figure, it is evident that DHET respondents represent almost 55% of the total number of respondents. The respondents from HEIs represent 45% of the total number of respondents. The two groups are almost distributed equally.

4.2.2 Job level

The respondents vary in terms of their job levels. In Figure 4-2 below the different job levels are grouped as: Administration, Executive, Middle management and Top executive.

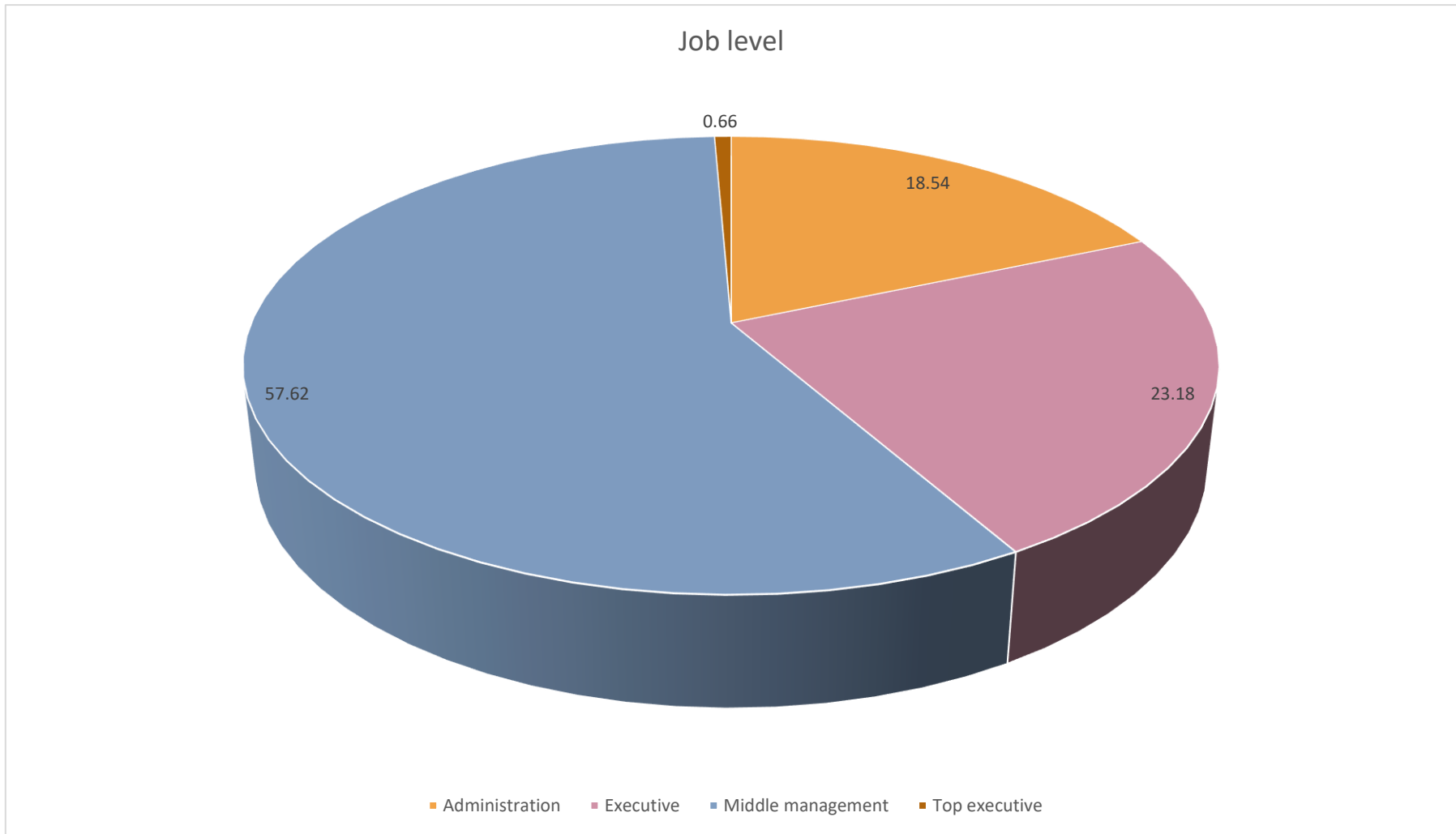


Figure 4-2: Percentage of respondents per job level

Middle managers make out the biggest proportion (57.6%) of all the respondents. Academic and skilled employees from the DHET and HEIs are typically found in the middle management job level. The percentage (23.1%) of respondents that fulfil executive job level responsibilities are almost equal to respondents fulfilling administrative responsibilities (18.5%).

4.2.3 Main responsibility in the Public Service

The Main responsibility item of demographic frequencies further differentiates the respondents into categories pertaining to their day-to-day activities or the major activities within their job descriptions. From the total of 151 respondents, 13.9% of the respondents indicated Finance and 22.5% of the respondents indicated Governance as their main responsibility within the Public Service. Also, 38.4% of the respondents indicated People management and 25.1% of respondents indicated Education as their main responsibility within the Public Service.

4.2.4 Years in current position

In the following two sections, the number of years that a respondent has been working in the Public Service will be analysed; first, in terms of the number of years in the current position and secondly, in terms of the total years in the Public Service. Figure 4-3 below displays the number of years in the current position in percentages.



Figure 4-3: Number of years in current position

As presented in the figure, it is evident that almost half of the respondents (47%) have been in their current position between 2-5 years. The figure further demonstrates similar percentages of respondents in the 6-10 years (22.5%) category and respondents who have been in their current position for more than 10 years (18.5%).

4.2.5 Total years in Public Service

In this second sub-section, the total number of years will be evaluated. Figure 4-4 below presents the total number of years that respondents have worked for the Public Service.

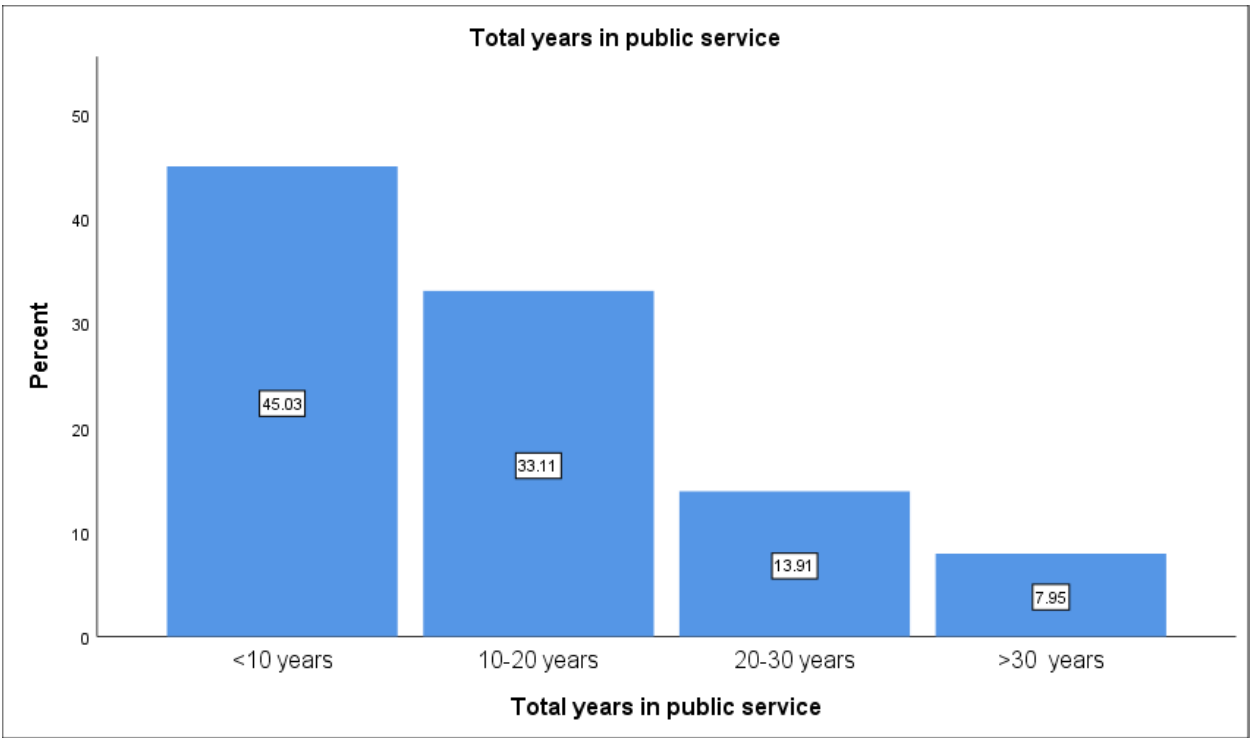


Figure 4-4: Total number of years in the Public Service

From the figure it is evident that 45% of the respondents have worked in the Public Service for more than 10 years. Slightly more than a third of the respondents have been working in the Public Service between 10 and 20 years. Only about 8% of the respondents in this study have been employed in the Public Service for more than 30 years.

4.2.6 Highest qualification obtained

Respondents can be differentiated from one another not only by their job level, main responsibility and years within the Public Service, but also according to their highest qualification. Table 4-1 below presents the highest qualification obtained by the respondents.

Table 4-1: Highest qualification per respondent

		Highest qualification obtained			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor's degree equivalent	36	23.8	33.3	33.3
	Master's degree equivalent	52	34.4	48.1	81.5
	PhD equivalent	20	13.2	18.5	100.0
	Total	108	71.5	100.0	
Missing	Other	43	28.5		
Total		151	100.0		

From the table it is evident that a total of 108 respondents (71.5%) could be categorised according to either bachelor's, master's or PhD degree equivalents. Of these 108 respondents 48.1% holds a Master's degree; and almost 20% of the respondents holds a PhD equivalent qualification.

From the table, it is evident that for this demographic frequency item, 43 (28%) of the total 151 respondents have been excluded from the pre-determined categories since these respondents selected the 'Other' option. This refers to respondents with other qualifications; e.g., chartered accountants or honours degrees in various disciplines. There are too many variations for qualifications; e.g., diplomas and postgraduate diplomas to be analysed per individual account. This is the end of the demographic frequencies section.

4.3 Factor analysis

Factor analysis was performed in this study to determine if the factors grouped together in the anticipated five factors, as identified by the literature review. The purpose of factor analysis is to model the interrelationships between items with fewer (latent) variables. The general intent of factor analysis is to present the data in a condensed format where the relationships and "to summarize data so that relationships and patterns can be easily interpreted and understood" (Yong & Pearce, 2013:79). In other words, factor analysis is a process where the data is reduced and organised in a straightforward structure to make sense through interpretation.

For this study, factor analysis can be used for the following purposes (extracted from the list by Garson, 2013:4, 5):

- To condense the variables in such a format that the Pattern Matrix presents a sufficient number of variables without excluding the essential items.
- To authenticate the factors through item loadings that cluster together and by excluding items that load on two factors

4.3.1 Kaiser-Meyer-Olkin and Bartlett's tests

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy is used to measure whether the data is appropriate to conduct factor analysis (IBM, 2020). The measure is a value between 0 and 1. A value closer to 1 is preferred. The Kaiser-Meyer-Olkin (KMO) and Bartlett's tests have been performed to determine whether the data are suitable for conducting factor analysis. The results of these two tests are presented in Table 4-2 below.

Table 4-2: The Kaiser-Meyer-Olkin (KMO) and Bartlett's tests

KMO and Bartlett's tests		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.884
Bartlett's Test of Sphericity	Approx. Chi-Square	2086.038
	df	276
	Sig.	0.000

From the table it is evident that the KMO Measure of Sampling Adequacy was 0.8. This value should be equal to or greater than 0.6 to proceed with factor analysis, since a value of 0.8 or higher is desirable (Kaiser, 1970). Therefore, factor analysis could progress, but the Bartlett's Test of Sphericity requires attention before factor analysis is conducted.

Bartlett's Test of Sphericity compares the observed correlations matrix with the identity matrix, to determine whether the variables are related and hence suitable for factor analysis (IBM, 2020). For this study, the significance was calculated as 0.000. This value indicates a high level of sampling adequacy because a significant level is less than 0.05. This indicates that factor analysis could be useful. From the results of the KMO Measure of Sampling Adequacy and Bartlett's Test of Sphericity tests it is evident that factor analysis could assist the researcher to realise the research objectives.

Factor analysis was performed and the results will be discussed under the following sub-headings: Total Variance Explained, the Cattell scree plot and the Pattern Matrix.

4.3.2 Total Variance Explained

Total Variance Explained results in a tabled display of Initial Eigenvalues and the Extraction Sums of Squared Loadings for each component. The Initial Eigenvalues column is comprised of the Total loading, the percentage of Variance and the Cumulative percentage. The Extraction Sums of Squared Loadings column is comprised of the Total loading, the percentage of Variance and the Cumulative percentage. The Extraction Sums of Squared Loadings is only for components that have been extracted.

For this study, Table 4-3 below displays the Total Variance Explained by the extraction method of Principal Component Analysis. The Initial Eigenvalues and the Extraction Sums of the Squared Loadings per each component are listed.

Table 4-3: Total Variance Explained

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.272	38.631	38.631	9.272	38.631	38.631
2	2.931	12.213	50.844	2.931	12.213	50.844
3	1.649	6.870	57.714	1.649	6.870	57.714
4	1.104	4.600	62.313	1.104	4.600	62.313
5	0.976	4.065	66.379			
6	0.801	3.336	69.715			
7	0.778	3.240	72.955			
8	0.735	3.064	76.019			
9	0.615	2.562	78.581			
10	0.571	2.381	80.962			
11	0.506	2.106	83.069			
12	0.496	2.066	85.134			
13	0.463	1.930	87.064			
14	0.457	1.904	88.968			
15	0.387	1.611	90.579			
16	0.380	1.585	92.164			
17	0.353	1.470	93.634			
18	0.330	1.375	95.009			
19	0.260	1.082	96.091			
20	0.249	1.039	97.130			
21	0.214	0.890	98.020			
22	0.173	0.722	98.742			
23	0.164	0.683	99.425			
24	0.138	0.575	100.000			
Extraction Method: Principal Component Analysis.						

From the table it is evident that four components of the original variables have Eigenvalues greater than the value of 1. These four components account for 62.3% of the variability in the original values.

4.3.3 The Cattell scree plot

Another way of looking at Total Variance Explained is to make use of a Cattell scree plot. A scree plot assists the researcher to determine the number of components to retain before the Principal Component Analysis is conducted. It will now be presented. The scree plot illustrates the relationship between the number of components and the Eigenvalues in a downward curve. The X-axis indicates the number of components and the Y-axis displays the Eigenvalues. The “Kaizer rule” (Kaizer, 1970) criterion is visible as a horizontal line at an Eigenvalue of 1. Figure 4-5 below presents the number of components and the Eigenvalues for this study.

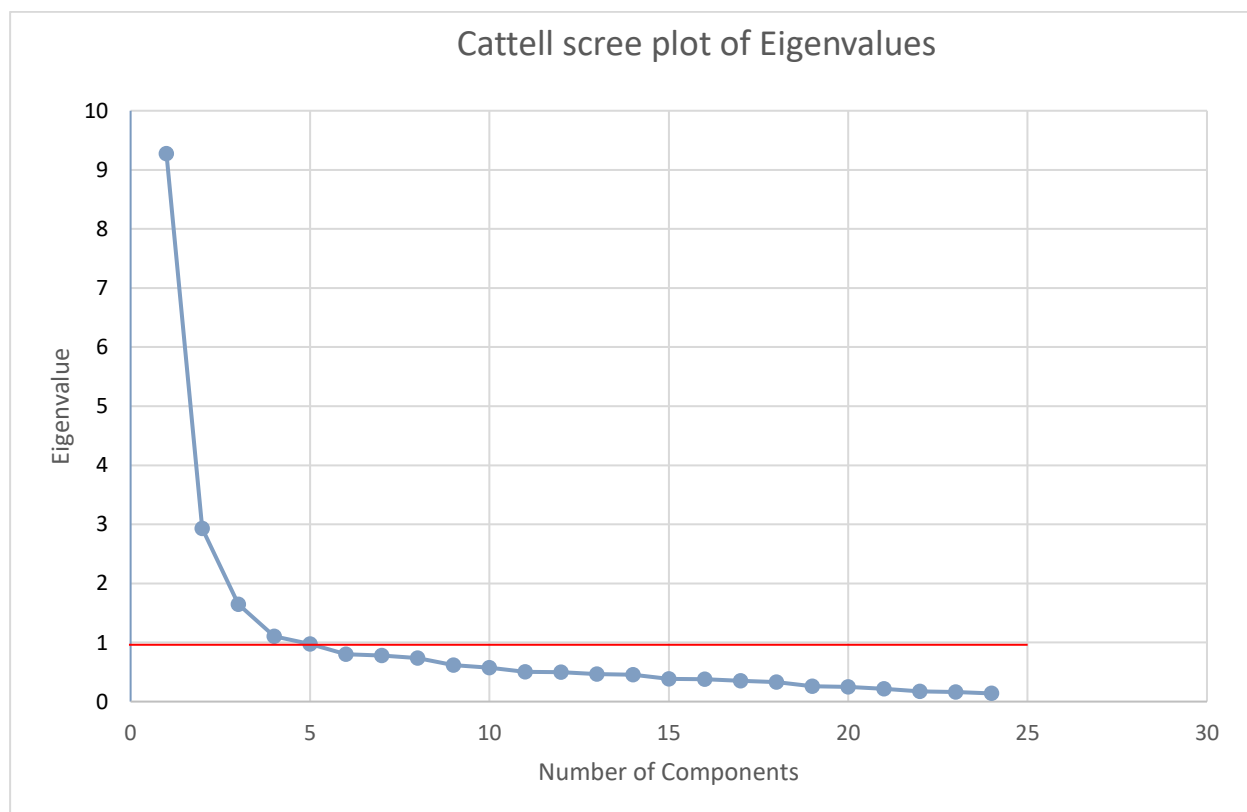


Figure 4-5: Cattell scree plot of Eigenvalues

From the Cattell scree plot it is evident that four components are positioned above and to the left of the horizontal line. This evidence confirms that the number of components to retain is four. This number is similar to the number of components in the Total Variance Explained table under the Extraction Sums of the Squared Loadings column. Once the number of components to retain had been confirmed, the Principal Component Analysis was performed. It will now be presented.

4.3.4 Pattern Matrix

Following the analysis above, factor analysis using principal axis factoring and a direct oblimin rotation was performed. This generated a table (Pattern Matrix) with the factor loading for each variable. This was the most important result from the factor analysis.

Garson (2013:5) emphasises the importance of factor analysis when all the items are clustered per factor and the items with high loadings are visible. Therefore, the Pattern Matrix provides valuable information pertaining to each statement in relation to the factor by loading each item. After a factor analysis has been conducted, it is possible to evaluate whether the variables cluster according to the factors as identified from the literature review or differently. The Pattern Matrix is presented in Table 4-4 below. Loadings of below 0.4 have been suppressed.

Table 4-4: Pattern Matrix

Pattern Matrix ^a					Newly clustered factor & sub-factor
	Component				
	1	2	3	4	
Q13. Transparency is embedded in the Financial management system of my workplace	0.876				Financial management: Transparency
Q22. Financial management standards in my workplace are clearly demarcated	0.827				Financial management: Financial Management Standards
Q16. My workplace is fully 'au fait' with the requirements of Financial management	0.814				Financial management: Public Service finance & account Management
Q12. The Financial management system in my workplace is effective in combating corruption	0.797				Financial management: Anti-Corruption
Q20. Financial management principles are accurately applied in my workplace	0.761				Financial management: Financial management principles
Q15. Corporate governance in my workplace is visibly promoted	0.614				Financial management: Good governance
Q7. My workplace adheres to International Accounting Standards	0.595				Financial management: International Accounting Standards
Q6. Systems to support effective Financial management in my workplace are in place	0.591				Financial management: Systems which support
Q9. Clean audits in my workplace are a procedural requirement	0.471				Financial management: Clean audits
Q24. The strategic goals of my workplace can be achieved if effective governance is practised		0.873			Business management: Strategic management
Q14. Public service Financial management requires special understanding of budget constraints		0.867			Business management: Public money

Pattern Matrix ^a					Newly clustered factor & sub-factor
	Component				
	1	2	3	4	
Q19. Transparency is a value that should be lived in the real world		0.790			Business management: People - Values, culture & norms
Q11. A clean audit is an automatic requirement for Management success		0.567			Business management: Effective Management
Q5. Diversity management is exercised at a high level in my workplace			0.847		Governance: Diversity management
Q1. International corporate governance standards are applied in my workplace			0.743		Governance: Global governance
Q4. Governance in my workplace focuses on strategic goals			0.614		Governance: Serving the public
Q3. The last audit of my public service department was a clear reflection of the commitment of every team member			0.493		Governance: Commitment
Q2. Effective People management is the cornerstone of success in my workplace			0.444	0.407	Human resource management: People management
Q23. Training and development of employees in my workplace are in line with future requirements				0.723	Human resource management: Training & Development
Q21. Effective Time management is employed in my workplace	0.469			0.487	Human resource management: Time management
Q18. Employees are afforded the opportunity to display their decision-making skills				0.479	Human resource management: Decision-making skills
Q8. The skills levels of employees in my workplace meet the requirements of a modern public service				0.460	Human resource management: Skills management /Level of available skills

Pattern Matrix ^a					Newly clustered factor & sub-factor
	Component				
	1	2	3	4	
Q17. In my workplace sufficient provision is made for leadership succession				0.455	Human resource management Leadership Development
Q10. Changing skills requirements to accommodate future development are recognised					
Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalisation					
a. Rotation converged in 18 iterations.					

From the table it is apparent that the items clustered only in four and not in five factors, as originally expected and discussed in the literature review in Chapter 2. With this composition of newly clustered factors, nine items cluster under Financial management. The remaining three factors (Business management, Governance and Human resource management) consist of four items each.

The original items were reorganised into the new factors. The initial factor Financial management was replicated exactly in the new factor Financial management and four additional items (originally from the initial factor Governance) loaded on the new factor Financial management. The initial factor Business management was not replicated, but rather split into two, with three items loading on the new factor Business management, two items loading on the new factor Governance. The initial factor Governance was not replicated as is in the new factor Governance. Only one item from the original factor Governance loaded on the new factor Governance. The initial factor People management was replicated, but with the exception of two items that loaded on the new factors Business management and Governance respectively. The initial factor Skills management was not separated well in the data and loaded entirely on the new factor Human resource management.

In addition, three of the original items were eliminated by the factor analysis process. One of the reasons for this elimination is because items should be clustered under only one factor, indicating that factor analysis could be used to reduce the number of items that cross-load on multiple factors (Garson, 2013:4). One item did not show a meaningful loading on any factor and was eliminated.

The new name for each factor was derived from commonality of all the items clustered under that factor. Clustering these new factors brings this study one step closer to accomplishing the main research objective, namely to develop a framework for effective management in the Public Service of South Africa by firstly identifying the critical success factors. Now that the factors have been organised, the reliability of the factors are reported.

4.4 Reliability analysis for factors

Per definition, a reliable measure is achieved when the same result is obtained by a repeated measure. Reliability can be rephrased as repeatability or consistency (Trochim, 2020). In other words, a measure of how well a group of variables harmonise with one another is considered a reliable measure. Reliability or internal consistency is measured by using the Cronbach's alpha coefficient. This value can theoretically vary from 0 to 1. When the value is 0, it consists of only measurement errors. The other extreme is a reliability value of 1 where no measurement errors occur.

Cronbach's alpha coefficient was used in this study to calculate internal consistency for each factor. The Cronbach's alpha coefficient was calculated for each factor. The contribution of each item was determined by the repeated calculation of the coefficient for the total scale by eliminating the items one at a time. For each factor, the following tables are presented:

- Reliability statistics
- Summary item statistics
- Item-total statistics

4.4.1 Financial management factor

Table 4-5 below presents the reliability statistics for the Financial management factor by displaying Cronbach's alpha and the number of items.

Table 4-5: Reliability Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	No. of Items
0.920	0.920	9

From the table it is evident that the Cronbach's alpha is 0.9. According to Bryman and Bell (2007:164), Cronbach's alpha values of 0.70 and above are typically employed as a rule of thumb to denote a good level of internal reliability.

A summary of the Item Statistics follows in Table 4-6 below.

Table 4-6: Summary of Item Statistics

Summary Item Statistics							
	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	0.562	0.388	0.738	0.350	1.902	0.007	9

From the table it is clear that the mean inter-item correlations value for the Financial management factor is 0.5. Clark and Watson (1995) suggest that the average inter-item correlation of items should ideally be between 0.1 and 0.5. The inter-item correlations value for the Financial management factor is 0.5 which is slightly but not dramatically higher than the recommended 0.5.

In Table 4-7 below the Item Total Statistics is presented.

Table 4-7: Item-Total Statistics

	Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q6. Systems to support effective Financial management in my workplace are in place	17.60	33.856	0.689	0.544	0.913
Q7. My workplace adheres to International Accounting Standards	17.64	34.818	0.644	0.441	0.915
Q9. Clean audits in my workplace are a procedural requirement	17.93	34.681	0.628	0.475	0.917
Q12. The Financial management system in my workplace is effective in combating corruption	17.46	33.530	0.729	0.591	0.910
Q13. Transparency is embedded in the Financial management system of my workplace	17.46	33.383	0.769	0.657	0.907
Q15. Corporate governance in my workplace is visibly promoted	17.50	34.478	0.684	0.532	0.913

	Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q16. My workplace is fully 'au fait' with the requirements of Financial management	17.58	35.072	0.709	0.547	0.911
Q20. Financial management principles are accurately applied in my workplace	17.61	33.293	0.804	0.697	0.905
Q22. Financial management standards in my workplace are clearly demarcated	17.59	33.364	0.790	0.653	0.906

From the table it is evident that all the Corrected Item-Total Correlations (e.g., comprising the correlation of the first item with the combined score of all the remaining items) are greater than 0.6 which is above the accepted 0.3 to 0.5 range (how2stats, 2011). In the last column, the Cronbach's alpha of the factor is displayed if that particular item is deleted. None of the items, if deleted, will increase the Cronbach's alpha which indicates a high level of internal consistency.

4.4.2 Business management factor

Table 4-8 below presents the reliability statistics for the Business management factor by displaying Cronbach's alpha and the number of items.

Table 4-8: Reliability Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	No. of Items
0.837	0.840	4

From the table, it is evident that the Cronbach's Alpha is 0.8. According to Bryman and Bell (2007:164) Cronbach alpha values of 0.7 and above are typically employed as a rule of thumb to denote a good level of internal reliability.

A summary of the Item Statistics follows in Table 4-9 below.

Table 4-9: Summary of Item Statistics

Summary Item Statistics							
	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	No. of Items
Inter-Item Correlations	0.568	0.443	0.675	0.231	1.522	0.010	4

From the table the following can be derived: The mean inter-item correlations value for the Business management factor is 0.5. Clark and Watson (1995) suggest that the average inter-item correlation of items should ideally be between 0.1 and 0.5. The inter-item correlations value for the Financial management factor is 0.5 which is slightly but not dramatically higher than the recommended 0.5.

In Table 4-10 below the Item-Total Statistics is presented.

Table 4-10: Item-Total Statistics

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q11. A clean audit is an automatic requirement for Management success	4.86	6.201	0.558	0.341	0.844
Q14. Public service Financial management requires special understanding of budget constraints	5.25	5.706	0.784	0.619	0.744
Q19. Transparency is a value that should be lived in the real world	5.21	5.755	0.672	0.489	0.793
Q24. The strategic goals of my workplace can be achieved if effective governance is practised	5.25	6.200	0.678	0.496	0.791

From the table it is evident that all the Corrected Item-Total Correlations (e.g., comprising the correlation of the first item with the combined score of all the remaining items) are greater than 0.5 which is above the accepted 0.3 to 0.5 range (how2stas, 2011). In the last column, the Cronbach's alpha of the scale is displayed if that particular item is deleted. None of the items in the Cronbach's Alpha if item Deleted entry is greater than the original Cronbach's alpha (valued at 0.8) except for the first item (valued at 0.8) which is only slightly greater than the original Cronbach's alpha and will therefore not be removed. This indicates that all the items are linked to the identified factor and none should be excluded.

4.4.3 Governance factor

Table 4-11 below presents the reliability statistics for the Financial management factor by displaying Cronbach's alpha and the number of items.

Table 4-11: Reliability Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	No. of Items
0.755	0.755	4

From the table it is evident that the Cronbach's alpha is 0.7. According to Bryman and Bell (2007:164), Cronbach's alpha values of 0.70 and above are typically employed as a rule of thumb to denote a good level of internal reliability.

A summary of the Item Statistics follows in Table 4-12 below.

Table 4-12: Summary of Item Statistics

Summary Item Statistics							
	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	No. of Items
Inter-Item Correlations	0.436	0.355	0.481	0.126	1.355	0.002	4

From the table, the following can be derived: The mean inter-item correlations value for the Governance factor is 0.4. Clark and Watson (1995) suggest that the average inter-item correlation of items should ideally be between 0.1 and 0.5. The inter-item correlations value for the Governance factor is 0.43 which is between the recommended 0.1 and 0.5.

In Table 4-13 below the Item-Total Statistics is presented.

Table 4-13: Item-Total Statistics

	Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q1. International corporate governance standards are applied in my workplace	6.57	5.060	0.555	0.321	0.697
Q3. The last audit of my public service department was a clear reflection of the commitment of every team member	6.71	5.288	0.490	0.245	0.731
Q4. Governance in my workplace focuses on strategic goals	6.89	4.941	0.588	0.347	0.679
Q5. Diversity management is exercised at a high level in my workplace	6.54	4.917	0.576	0.334	0.685

From the table it is evident that all the Corrected Item-Total Correlations (e.g., comprising the correlation of the first item with the combined score of all the remaining items) are calculated around 0.5 which is above the accepted 0.3 to 0.5 range (how2stats, 2011). In the last column, the Cronbach's alpha of an item is displayed if that particular item is deleted. None of the items in the Cronbach's Alpha if Item Deleted entry is greater than the original Cronbach's alpha (valued

at 0.7). This indicates that all the items are linked to the identified factor and none should be excluded.

4.4.4 Human resource management factor

Table 4-14 below presents the reliability statistics for the Human resource management factor by displaying Cronbach's alpha and the number of items.

Table 4-14: Reliability Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	No. of Items
0.759	0.760	4

From the table it is evident that the Cronbach's alpha is 0.7. According to Bryman and Bell (2007:164), Cronbach's alpha values of 0.7 and above are typically employed as a rule of thumb to denote a good level of internal reliability.

A summary of the Item Statistics follows in Table 4-15 below.

Table 4-15: Summary Item Statistics

Summary Item Statistics							
	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	0.442	0.356	0.630	0.274	1.769	0.009	4

From the table, the following can be derived: The mean inter-item correlations value for the Human resource management factor is 0.4. Clark and Watson (1995) suggest that the average inter-item correlation of items should ideally be between 0.1 and 0.5. The inter-item correlations value for the Human resource management factor is 0.4 which is between the recommended 0.1 and 0.5.

In Table 4-16 below the Item-Total Statistics is presented.

Table 4-16: Item-Total Statistics

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q8. The skills levels of employees in my workplace meet the requirements of a modern Public Service	7.93	5.815	0.482	0.239	0.740
Q17. In my workplace sufficient provision is made for leadership succession	7.56	5.314	0.586	0.419	0.687
Q18. Employees are afforded the opportunity to display their decision-making skills	7.80	4.987	0.639	0.462	0.656
Q23. Training and development of employees in my workplace are in line with future requirements	7.88	5.079	0.529	0.287	0.721

From the table it is evident that all the Corrected Item-Total Correlations (e.g., comprising the correlation of the first item with the combined score of all the remaining items) are calculated between 0.4 and 0.6 which is in the vicinity of the accepted 0.3 to 0.5 range (how2stats, 2011). In the last column, the Cronbach's alpha of an item is displayed if that particular item is deleted. None of the items in the Cronbach's Alpha if Item Deleted entry is greater than the original Cronbach's alpha (valued at 0.7). This indicates that all the items are linked to the identified factor and none should be excluded.

In the next section, the descriptive statistical results offer clarity for research objective 1, namely to identify the factors and sub-factors that contribute most significantly towards effective management within the Public Service of South Africa. Research objective 2, namely to explore the difference of the perceptions between those in policy (DHET) versus those in practice (HEIs) will be presented under Inferential statistics.

4.5 Descriptive statistics

Descriptive statistics describe the set of data. Measures of central tendency include the mean, median and mode, and could be considered as typical observations that are included as a point of departure in descriptive statistics. The median can be calculated by arranging the data in order from highest to lowest and selecting the middle value (Kranzler, 2003). The mode is the most recurrently occurring score (Kranzler, 2003). In addition, the measurement of the spread can be evaluated by calculating the standard deviation which measures the total variability of a distribution.

Descriptive statistics is a valuable tool to organise, display and summarise the data that have been obtained through the research methods as described in Chapter 3. To make sense of the obtained data, descriptive statistics are applied to manage numerical descriptions (Trochim, 2020). In other words, descriptive statistics explain and communicate the data in a structured manner. Comparisons between groups or units are therefore possible.

For this study, factor analysis assisted the researcher to determine underlying factors in the data. For each factor, a composite score was obtained by calculating in the average score for the items on the factor which could theoretically range from 1 to 4.

In Table 4-17 below the Descriptive statistics per factor are presented.

Table 4-17: Descriptive statistics per factor

Descriptive statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Financial management	151	1.00	4.00	2.1994	.72581
Business management	151	1.00	4.00	1.7136	.79288
Governance	151	1.00	4.00	2.2252	.72039
Human resource management	151	1.00	4.00	2.5977	.73823
Valid N (listwise)	151				

Mean scores ranged from 1.7 to 2.5. The midpoint of the 4-point scale was 2.5. This suggested that in general, responses tended to be towards the lower side of the scale. This implied that the respondents tended to agree with the factors, since the rating scale ranged from “Strongly agree” (rating 1) to “Strongly disagree” (rating 4). The factor Human resource management had the highest mean value, indicating that respondents were the most negative towards this aspect, while Business management had the lowest mean value, suggesting that they were most positive towards this aspect.

The mean score of the newly clustered factors is presented in Figure 4-6 below.

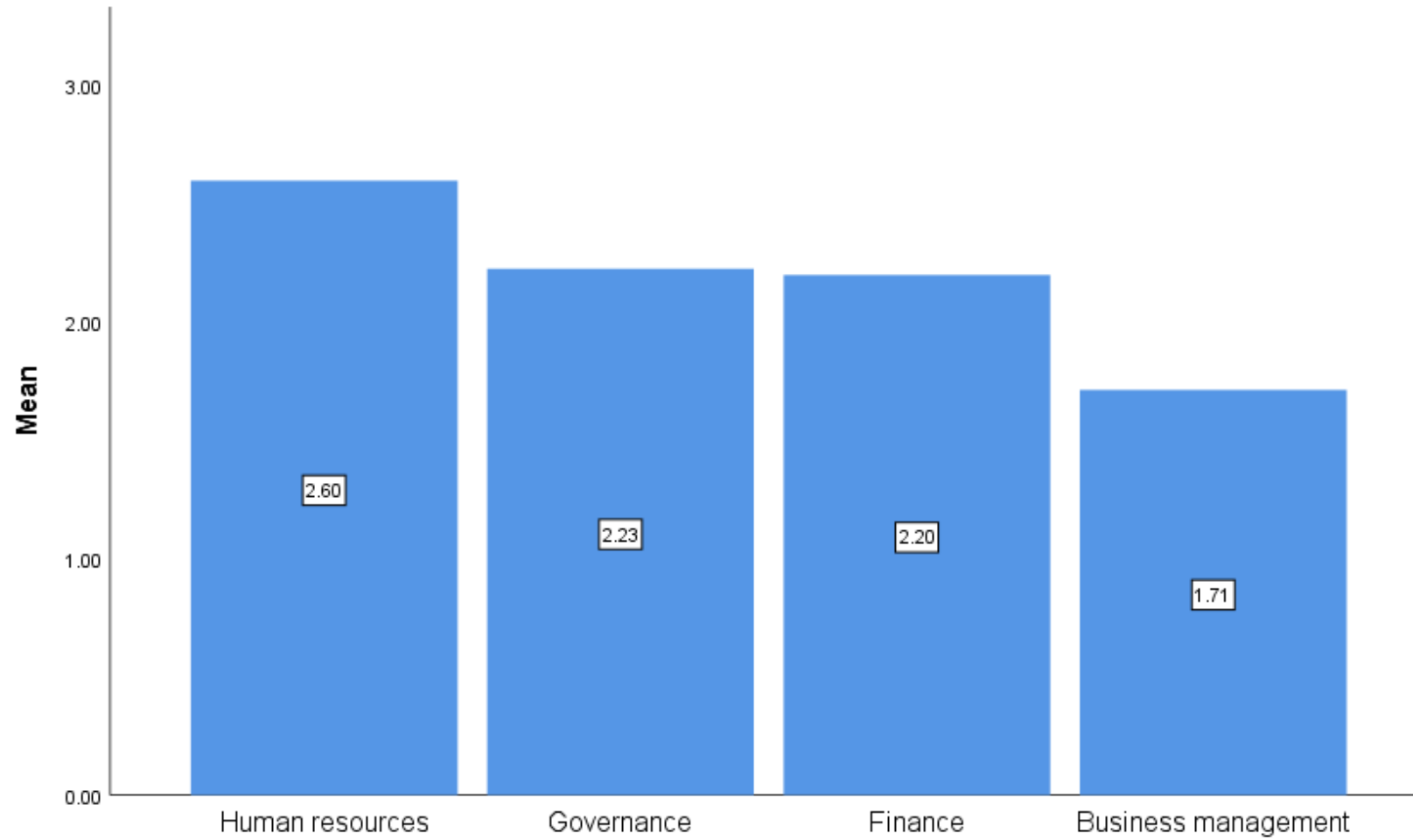


Figure 4-6: The mean score of the newly clustered factors

4.6 Ranking of factors

The final question of the questionnaire was a forced ranking question. The respondents were requested to rank the factors (Public Service, Financial management, Governance, People management and Skills management) in order of importance (Most important, Very important, Important, Little important and Least important). Only one rank per factor was allowed.

Each ranking is presented from the highest to the lowest category with the following: Ranking of the identified factor (Table 4-18 to Table 4-22) and a graphic representation (Figure 4-7 to Figure 4-11) of the ranking.

Table 4-18: Ranking for the most important factor

		Most important			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Financial management	31	20.5	20.9	20.9
	Governance	30	19.9	20.3	41.2
	People management	19	12.6	12.8	54.1
	Public service	52	34.4	35.1	89.2
	Skills management	16	10.6	10.8	100.0
	Total	148	98.0	100.0	
Missing	1	1	.7		
	0	2	1.3		
	Total	3	2.0		
Total		151	100.0		

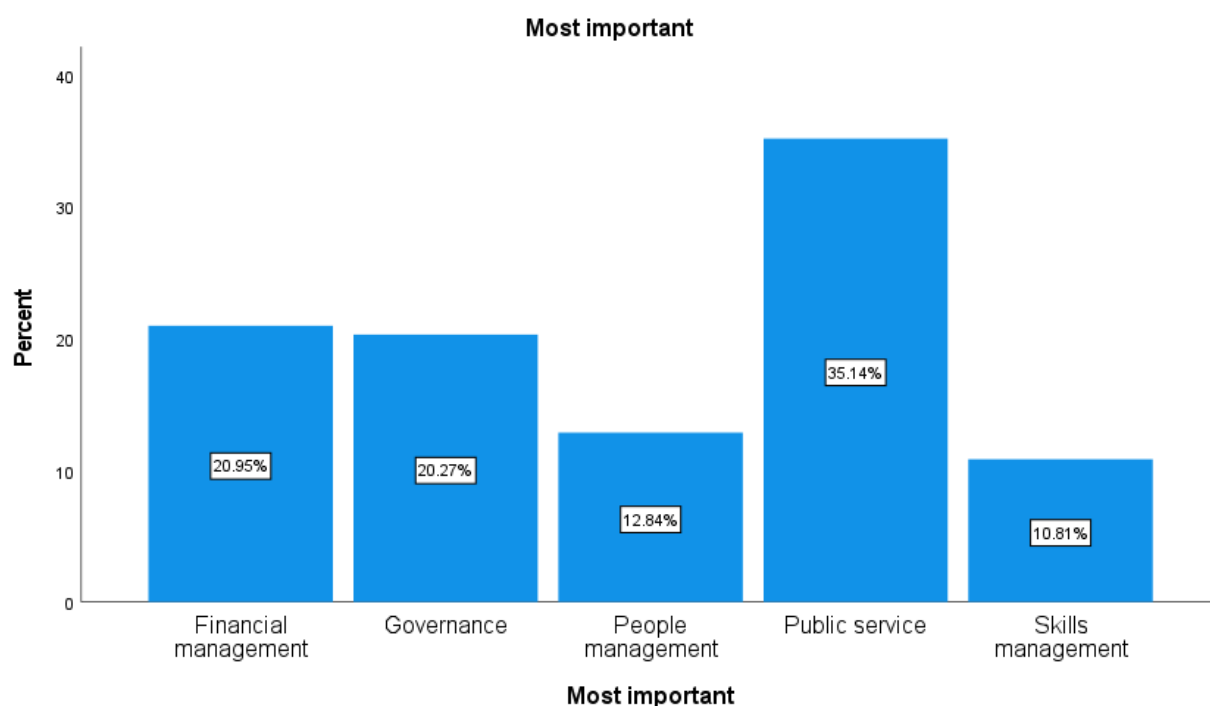


Figure 4-7: Ranking for the most important factor

It is evident that Public service (35.1%) was ranked the highest on the Most important factor rank and Skills management (10.8%) was ranked the lowest on the Most important rank. Governance was ranked in the middle (20.2%).

Table 4-19: Table for the very important factor

		Very important			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Financial management	62	41.1	41.9	41.9
	Governance	32	21.2	21.6	63.5
	People management	20	13.2	13.5	77.0
	Public service	18	11.9	12.2	89.2
	Skills management	16	10.6	10.8	100.0
	Total	148	98.0	100.0	
Missing	1	1	.7		
	0	2	1.3		
	Total	3	2.0		
Total		151	100.0		

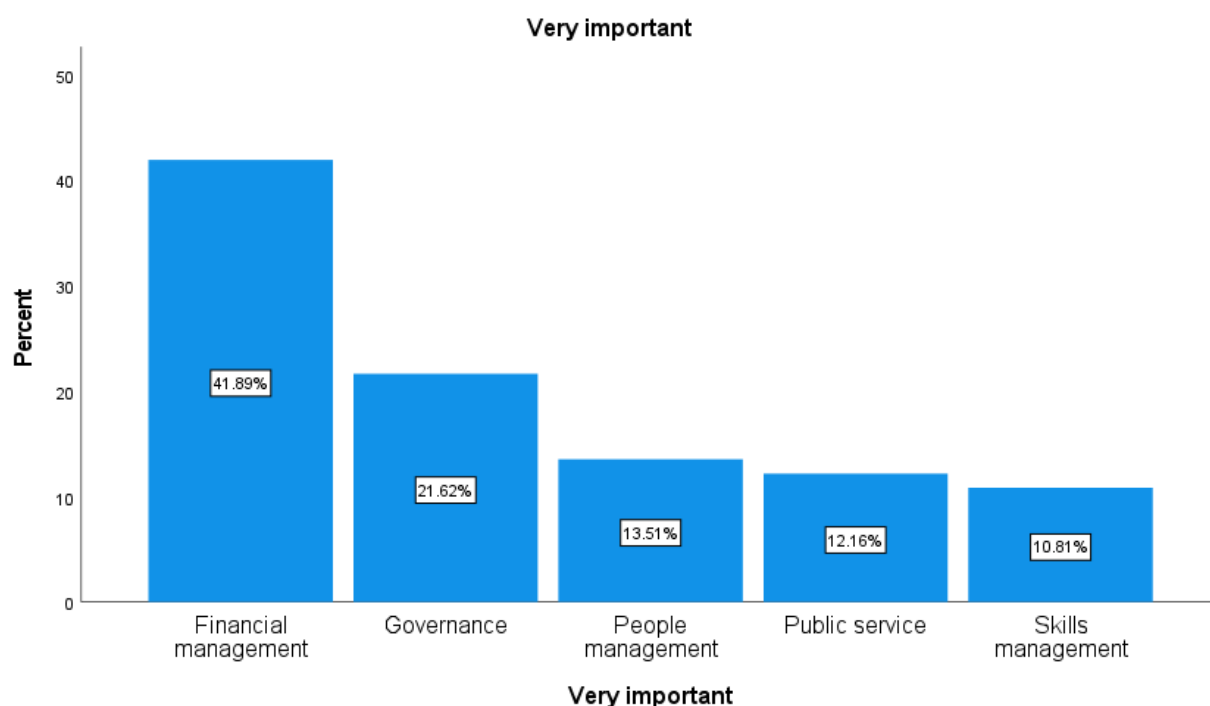


Figure 4-8: Ranking for the very important factor

It is evident that Financial management (41.8%) was ranked the highest on the Very important factor rank and Skills management (10.8%) was ranked the lowest on the Very important rank. People management was ranked in the middle (13.5%).

Table 4-20: Ranking for the important factor

		Important			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Financial management	26	17.2	17.6	17.6
	Governance	49	32.5	33.1	50.7
	People management	30	19.9	20.3	70.9
	Public service	22	14.6	14.9	85.8
	Skills management	21	13.9	14.2	100.0
	Total	148	98.0	100.0	
Missing	1	1	.7		
	0	2	1.3		
	Total	3	2.0		
Total		151	100.0		

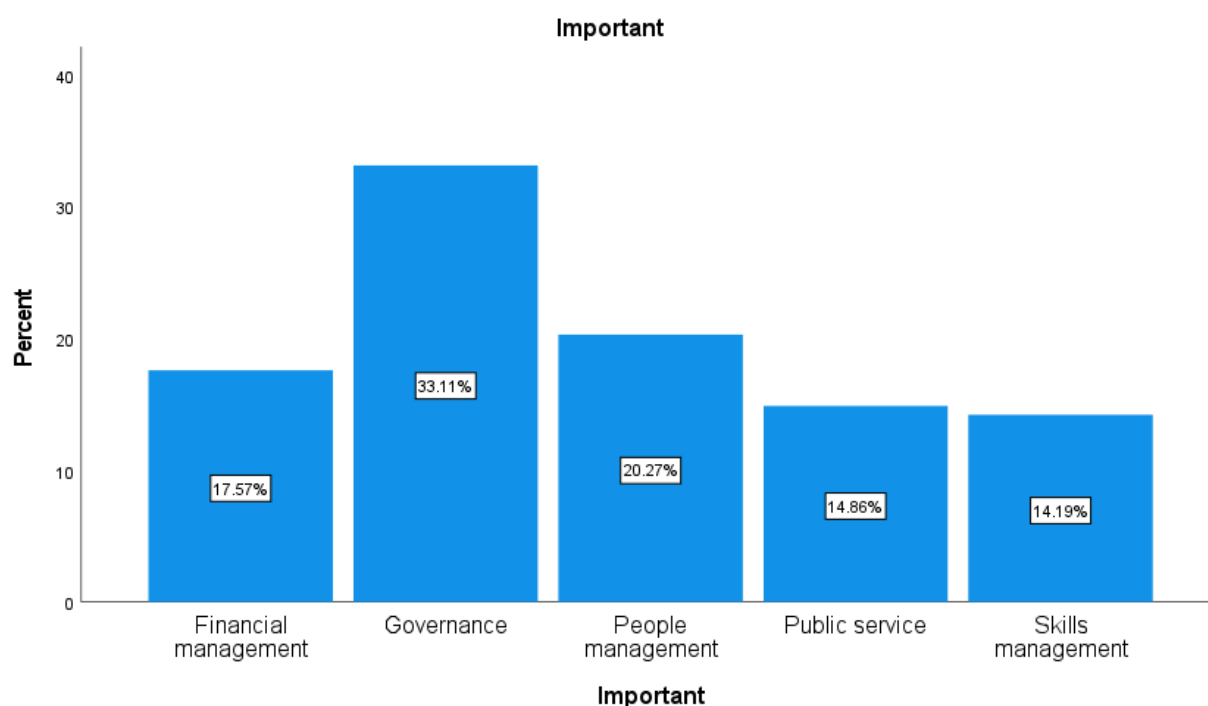


Figure 4-9: Ranking for the important factor

It is evident that Governance (33.1%) was ranked the highest on the Important factor rank and Skills management (14.1%) was ranked the lowest on the Important rank. Financial management was ranked in the middle (17.5%).

Table 4-21: Ranking for little important factor

Little important					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Financial management	22	14.6	14.9	14.9
	Governance	17	11.3	11.5	26.4
	People management	53	35.1	35.8	62.2
	Public service	16	10.6	10.8	73.0
	Skills management	40	26.5	27.0	100.0
	Total	148	98.0	100.0	
Missing	1	1	.7		
	0	2	1.3		
	Total	3	2.0		
Total		151	100.0		

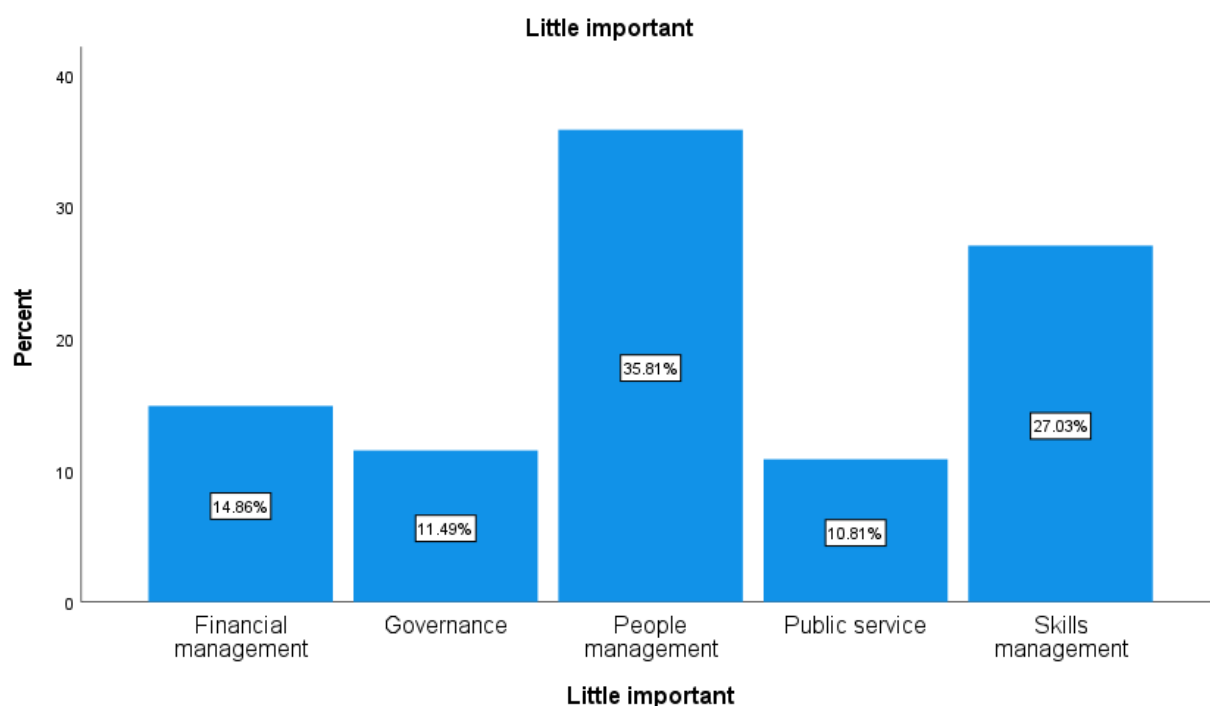


Figure 4-10: Ranking for the little important factor

It is evident that People management (35.8%) was ranked the highest on the Little important factor rank and Public service (10.8%) was ranked the lowest on the Little important rank. Financial management was ranked in the middle (14.8%).

Table 4-22: Ranking for least important factor

		Least important			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Financial management	6	4.0	4.1	4.1
	Governance	20	13.2	13.5	17.6
	People management	26	17.2	17.6	35.1
	Public service	40	26.5	27.0	62.2
	Skills management	56	37.1	37.8	100.0
	Total	148	98.0	100.0	
Missing	1	1	.7		
	0	2	1.3		
	Total	3	2.0		
Total		151	100.0		

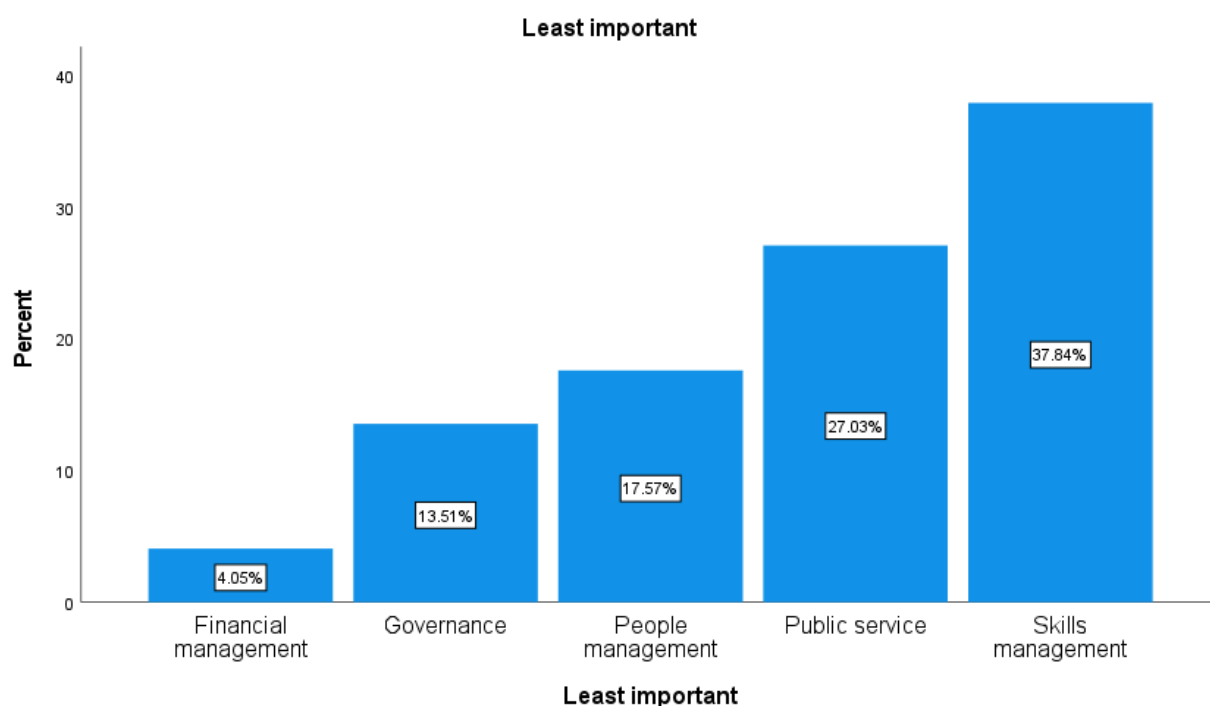


Figure 4-11: Ranking for least important factor

It is evident that Skills management (37.8%) was ranked the highest on the Least important factor rank and Financial management (4.0%) was ranked the lowest on the Least important rank. People management was ranked in the middle (17.5%).

4.7 Inferential statistics

For this study, inferential statistics supports the descriptive statistics. In inferential statistics data is analysed to draw conclusions about the population (Kranzler, 2003:36). Stated differently, inferential statistics provides the opportunity to generalise and compare data within the population.

For research objective 2, to explore the difference between those in policy (DHET) and those in practice (HEI) is presented, the correlations between variables and the comparison of demographic groups are assessed.

4.8 Correlations between variables

A correlation is used to describe whether variables are related, more specifically if the variables are covariant. Covariance is defined as a statistical technique which evaluates the difference of two variables in relations to each other (Great Learning Team, 2020). In other words, if the value

of one variable increases, the value of the other variable will either increase or decrease accordingly.

In this study, normality was first tested to identify which type of correlation was deemed the best fit; then the actual correlation was reported, followed by the statistical significance and the effect size.

4.8.1 Test of normality

The test of normality is a preliminary test which will help to determine whether a Pearson (parametric) or Spearman (non-parametric) correlation should be applied to the data. A normal distribution (also called a Gaussian distribution) can be described as a continuous probability distribution where the variables are scattered mostly around the centre (the mean); spread out and taper off to the sides in a mirrored fashion (McLeod, 2019). A normal distribution is illustrated as a bell curve.

Normality was assessed by calculating the Kolmogorov-Smirnov and Shapiro-Wilk tests. The relationship between the data and corresponding normal scores was used to determine normality by applying the Shapiro-Wilk test (Ghasemi & Zahediasl, 2012). The Kolmogorov-Smirnov and Shapiro-Wilk tests “compare your data to a normal distribution and provide a p-value, which if significant ($p < .05$) indicates your data is different to a normal distribution” (McLeod, 2019). In other words, the p-value (Sig.) of this study should be examined to determine if it is smaller than 0.05; if so, the sample is not distributed normally. Table 4-23 below presents the Tests of Normality for the factors.

Table 4-23: Tests of Normality for the factors

Tests of Normality							
	Kolmogorov-Smirnov ^a			Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.	
Finance Finance	0,078	151	0,024	0,974	151	0,005	
Business_management Business management	0,223	151	0,000	0,801	151	0,000	
Governance Governance	0,100	151	0,001	0,966	151	0,001	
Human_resources Human resources	0,115	151	0,000	0,972	151	0,003	
a. Lilliefors Significance Correction							

From the table it is evident that for each of the four factors the p-value (Sig.) is smaller than 0.05 in both the Kolmogorov-Smirnov and Shapiro-Wilk tests. Therefore, the factors are not distributed normally which makes the Spearman (non-parametric) correlation more suitable.

4.8.2 Spearman's Correlation Coefficient

A Spearman's Correlation Coefficient is "a statistical measure of the amount of monotonic relationship between two variables that are arranged in rank order" (Statistical Concepts, 2020). In this study, Table 4-24 below presents the Spearman's correlation between the factors.

Table 4-24: Spearman's Correlations

Correlations						
			Finance Finance	Business_man agement Business management	Governance Governance	Human_resourc es Human resources
Spearman's rho	Finance Finance	Correlation Coefficient	1,000	.491**	.609**	.510**
		Sig. (2-tailed)		0,000	0,000	0,000
		N	151	151	151	151
	Business_management Business management	Correlation Coefficient	.491**	1,000	.323**	0,143
		Sig. (2-tailed)	0,000		0,000	0,079
		N	151	151	151	151
	Governance Governance	Correlation Coefficient	.609**	.323**	1,000	.562**
		Sig. (2-tailed)	0,000	0,000		0,000
		N	151	151	151	151
	Human_resources Human resources	Correlation Coefficient	.510**	0,143	.562**	1,000
		Sig. (2-tailed)	0,000	0,079	0,000	
		N	151	151	151	151
**. Correlation is significant at the 0.01 level (2-tailed).						

A positive correlation was found between the Governance factor and the Financial management factor ($r=0.609$, $p<0.05$). This implies that when the Governance factor increases, the score on the Financial management factor increases. The correlation can be described as of a large according to Cohen's guidelines (1988). This correlation indicates that a relationship between the Governance factor and the Financial management factor exists.

A positive correlation was found between the Business management factor and the Financial management factor ($r=0.491$, $p<0.05$). This implies that when the Business management factor increases, the score on the Financial management factor increases. The correlation can be described as of a large effect, according to Cohen's guidelines (1988). This correlation indicates that a relationship between the Business management factor and the Financial management factor exists.

A positive correlation was found between the Human resource management factor and the Financial management factor ($r=0.510$, $p<0.05$). This implies that when the Human resource management factor increases, the score on the Financial management factor increases. The correlation can be described as of a large effect, according to Cohen's guidelines (1988). This

correlation indicates that a relationship between the Human resource management factor and the Financial management factor exists.

A weak positive correlation was found between the Governance factor and the Business management factor ($r=0.323$, $p<0.05$). This implies that when the Governance factor increases, the score on the Business management factor increases. The correlation can be described as of a moderate effect according to Cohen's guidelines (1988). This correlation indicates that a relationship between the Governance factor and the Business management factor exists.

A positive correlation was found between the Human resource management factor and the Governance factor ($r=0.562$, $p<0.05$). This implies that when the Human resource management factor increases, the score on the Governance factor increases. The correlation can be described as of a large effect, according to Cohen's guidelines (1988). This correlation indicates that a relationship between the Human resource management and the Governance factor exists.

To summarize, the significant correlations are summarised as follows: All correlations were positive. Positive correlations were found between Financial management and Business management ($r=0.491$, $p<0.05$) and Human resource management factor ($r=0.510$, $p<0.05$). A positive correlation was found between the Human resource management factor and the Governance factor ($r=0.562$, $p<0.05$). A moderately strong correlation was found between the Governance factor and the Financial management factor ($r=0.609$, $p<0.05$). In contrast, a moderately weak correlation was found between the Governance factor and the Business management factor ($r=0.323$, $p<0.05$).

The statistical significance of a correlation is largely influenced by sample size. There are different approaches to report on the effect size. One is to interpret the actual correlation values. Cohen (1988) suggest that a correlation value of 0.5 is considered large, 0.3 is considered moderate and 0.1 is considered small. All these correlations can be described as of large effect (Cohen, 1988), but with the exclusion of the correlation between the Financial management factor and the Governance factor which was of a moderate effect.

Although some factors are correlated, as discussed above, the nature of these relationships cannot be indicated. The other correlation was not statistically significant. Correlation is not causation. In other words, the correlation that exists between the Governance factor and the Financial management factor does not necessarily indicate that the Governance factor causes the Financial management factor.

4.9 Comparison of demographic groups

Demographic groups in this study are compared to realise research objective 2, namely to explore the difference in the perceptions between those in policy (DHET) versus those in practice (HEIs). The two groups of respondents, namely DHET and HEI respondents, are compared to determine whether statistically significant differences with regard to the factors Financial management, Business management, Governance and Human resource management exist.

In addition and for continuity of the comparison of all demographic groups in the study, the other sub-groups, namely Job level, Main responsibility, Years in current position, Total years in the Public Service and Highest qualification obtained are compared to determine whether statistical significant differences between the mean scores of these demographic groups exist.

To this end, one independent samples t-test and several ANOVAs are presented.

4.9.1 The independent samples t-test

The independent samples t-test “compares the means of two independent groups in order to determine whether there is statistical evidence that the associated population means are significantly different” (Kent State University, 2020). In this study, the independent samples t-test measures whether there is a statistical significant difference between the means of the two groups of DHET and HEI respondents.

The Levene’s test of Equality of Variance is used to test an assumption of the t-test, namely that the variances of the groups are equal (Daniel, 2018b).

Table 4-25 below presents the independent samples t-test for the two groups of DHET and HEI respondents.

Table 4-25: The independent samples t-test for DHET and HEI respondents

Group Statistics					
Groupnum		N	Mean	Std. Deviation	Std. Error Mean
Finance	DHET	83	2,1432	0,70711	0,07762
	HEi	68	2,2680	0,74751	0,09065
Business management	DHET	83	1,6687	0,74194	0,08144
	HEi	68	1,7684	0,85335	0,10348
Governance	DHET	83	2,1717	0,68178	0,07484
	HEi	68	2,2904	0,76491	0,09276
Human resources	DHET	83	2,5873	0,67335	0,07391
	HEi	68	2,6103	0,81541	0,09888

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Finance	Equal variances assumed	0,357	0,551	-1,051	149	0,295	-0,12473	0,11868	-0,35924	0,10977
	Equal variances not assumed			-1,045	139,838	0,298	-0,12473	0,11934	-0,36067	0,11121
Business management	Equal variances assumed	0,937	0,335	-0,768	149	0,444	-0,09971	0,12987	-0,35633	0,15691
	Equal variances not assumed			-0,757	133,766	0,450	-0,09971	0,13169	-0,36016	0,16075
Governance	Equal variances assumed	1,913	0,169	-1,008	149	0,315	-0,11875	0,11783	-0,35158	0,11407
	Equal variances not assumed			-0,996	135,648	0,321	-0,11875	0,11918	-0,35445	0,11694
Human resources	Equal variances assumed	4,867	0,029	-0,189	149	0,850	-0,02294	0,12114	-0,26232	0,21643
	Equal variances not assumed			-0,186	129,699	0,853	-0,02294	0,12345	-0,26719	0,22130

The difference between DHET and HEI respondents on the Financial management, Business management, Governance and Human resource management factor was investigated by means of independent samples t-tests. Levene's test for the equality of variances show that the variance of the two groups do not differ significantly ($F = 0.357$, $p > 0.05$). The t-test for equal variances assumed was thus used. There was no significant difference in the scores for DHET respondents ($M=2.14$, $SD=0.70$) and HEI respondents ($M=2.26$, $SD=0.74$); $t(149)=-1.051$, $p= 0.295$. The effect size was 0.17 which was so small that it did not even represent a small effect according to Cohen's D.

Levene's test for the equality of variances showed that the variance of the two groups did not differ significantly ($F=0.937$, $p > 0.05$). The t-test for equal variances assumed was thus used. There was no significant difference in the scores for DHET respondents ($M=1.66$, $SD=0.74$) and HEI respondents ($M=1.76$, $SD=0.85$); $t(149)=-0.768$, $p=0.44$. The effect size was 0.12 which was a negligible practical effect.

Levene's test for the equality of variances showed that the variance of the two groups did not differ significantly ($F=1.913$, $p > 0.05$). The t-test for equal variances assumed was thus used. There was no significant difference in the scores for DHET respondents ($M=2.17$, $SD=0.68$) and HEI respondents ($M=2.29$, $SD=0.76$); $t(149)=-1.008$, $p=0.31$. The effect size was 0.16 which was so small that it did not account for a small effect according to Cohen's D.

Levene's test for the equality of variances showed that the variance of the two groups differed significantly ($F=4.867$, $p > 0.05$). The t-test for equal variances not assumed was thus used. There was no significant difference in the scores for DHET respondents ($M=2.58$, $SD=0.67$) and HEI respondents ($M=2.61$, $SD=0.81$); $t(129.69)=-0.186$, $p=0.853$. The effect size was 0.030 which is a negligible practical effect.

4.9.2 One-way Analysis of Variance (ANOVA)

The sub-groups, namely Job level, Main responsibility in the Public Service, Years in current position, Total years in Public service and Highest Qualification, are compared to determine whether statistical significant differences between the mean scores of these demographic groups exist with regard to the factors in this study.

ANOVA is a statistical technique to verify whether two or more groups are statistically significantly different pertaining to the means (Lærd Statistics, 2018). In other words, ANOVA could assist the researcher to determine if the groups differ, but does not specify where the difference lies. ANOVA is generally utilised when there are more than two groups to compare. The output from the

ANOVA analysis is a table with the descriptives and a table with the ANOVA which will subsequently be discussed for each sub-group.

Table 4-26 below presents the descriptives for Job level.

Table 4-26: Descriptives for Job level

Descriptives									
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Finance	Administration	28	2.3492	0.81634	0.15427	2.0327	2.6657	1.00	3.78
	Executive	35	2.0254	0.51420	0.08692	1.8488	2.2020	1.22	2.89
	Middle management	87	2.2248	0.76399	0.08191	2.0619	2.3876	1.00	4.00
	Total	150	2.2015	0.72779	0.05942	2.0841	2.3189	1.00	4.00
Business management	Administration	28	1.7857	0.91721	0.17334	1.4301	2.1414	1.00	3.75
	Executive	35	1.4500	0.52790	0.08923	1.2687	1.6313	1.00	3.00
	Middle management	87	1.7960	0.82787	0.08876	1.6195	1.9724	1.00	4.00
	Total	150	1.7133	0.79553	0.06496	1.5850	1.8417	1.00	4.00
Governance	Administration	28	2.2321	0.81629	0.15427	1.9156	2.5487	1.00	4.00
	Executive	35	2.1429	0.59187	0.10005	1.9395	2.3462	1.25	3.50
	Middle management	87	2.2586	0.74362	0.07972	2.1001	2.4171	1.00	4.00
	Total	150	2.2267	0.72257	0.05900	2.1101	2.3432	1.00	4.00
Human resources	Administration	28	2.5625	0.80687	0.15248	2.2496	2.8754	1.00	4.00
	Executive	35	2.7286	0.58590	0.09903	2.5273	2.9298	1.50	4.00
	Middle management	87	2.5575	0.77544	0.08314	2.3922	2.7227	1.00	4.00
	Total	150	2.5983	0.74066	0.06047	2.4788	2.7178	1.00	4.00

Table 4-27 below presents the findings of the ANOVA analysis for Job level.

Table 4-27: ANOVA results for Job level

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Finance	Between Groups	1,743	2	0,872	1,660	0,194
	Within Groups	77,180	147	0,525		
	Total	78,923	149			
Business management	Between Groups	3,168	2	1,584	2,555	0,081
	Within Groups	91,130	147	0,620		
	Total	94,298	149			
Governance	Between Groups	0,336	2	0,168	0,318	0,728
	Within Groups	77,458	147	0,527		
	Total	77,793	149			
Human resources	Between Groups	0,775	2	0,387	0,703	0,497
	Within Groups	80,962	147	0,551		
	Total	81,737	149			

Table 4-27 indicates that the groups do not differ significantly with regard to the Financial management factor $F(2,147)0.19$. The effect size (eta squared) is 0.02 which is of small effect as a rule of thumb (Cohen & Cohen,1983).

The groups do not differ significantly with regard to the Business management factor $F(2,147)0.08$. The effect size (eta squared) is 0.03 which is of small effect as a rule of thumb (Cohen & Cohen, 1983).

The groups do not differ significantly with regard to the Governance factor $F(2,147)0.72$. The effect size (eta squared) is 0.00 which is not even of a small effect as a rule of thumb (Cohen & Cohen, 1983).

The groups do not differ significantly with regard to the Human resource management factor $F(2,147)0.49$. The effect size (eta squared) is 0.01 which is of small effect as a rule of thumb (Cohen & Cohen, 1983).

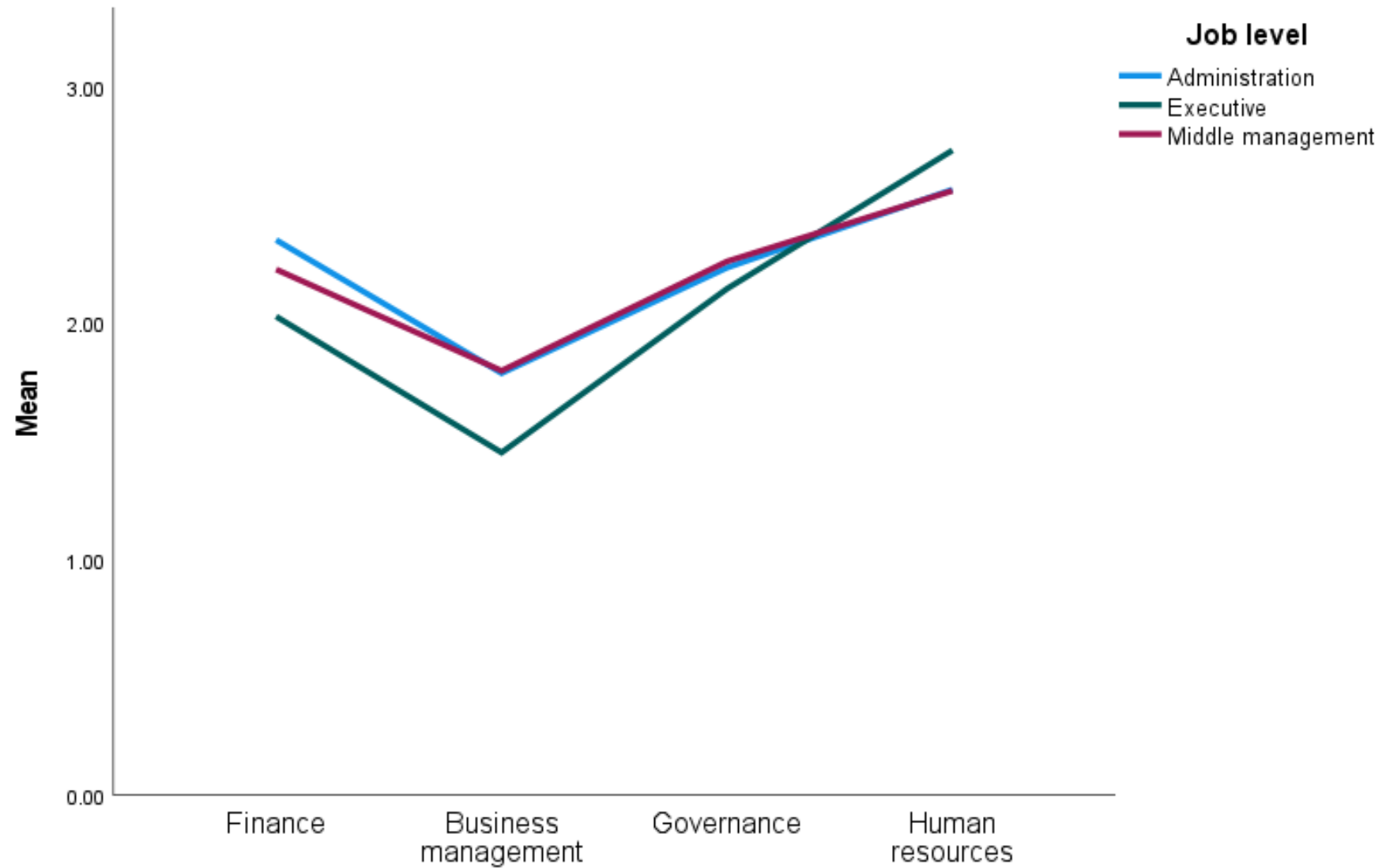


Table 4-28 below presents the descriptives for Main responsibility

Table 4-28: Descriptives for Main responsibility

Descriptives									
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Finance	Finance	13	1,9573	0,63915	0,17727	1,5710	2,3435	1,22	3,56
	Governance	13	2,2222	0,59835	0,16595	1,8606	2,5838	1,00	3,00
	People management	45	2,2296	0,79363	0,11831	1,9912	2,4681	1,00	3,89
	Total	71	2,1784	0,73379	0,08708	2,0047	2,3521	1,00	3,89
Business management	Finance	13	1,4615	0,35128	0,09743	1,2493	1,6738	1,00	2,00
	Governance	13	2,0385	0,90626	0,25135	1,4908	2,5861	1,00	3,75
	People management	45	1,9111	0,97432	0,14524	1,6184	2,2038	1,00	4,00
	Total	71	1,8521	0,89201	0,10586	1,6410	2,0632	1,00	4,00
Governance	Finance	13	2,2500	0,62082	0,17218	1,8748	2,6252	1,25	3,50
	Governance	13	2,3077	0,62211	0,17254	1,9318	2,6836	1,25	3,25
	People management	45	2,2444	0,79681	0,11878	2,0051	2,4838	1,00	4,00
	Total	71	2,2570	0,72945	0,08657	2,0844	2,4297	1,00	4,00
Human resources	Finance	13	2,6731	0,60712	0,16838	2,3062	3,0400	1,75	4,00
	Governance	13	2,5192	0,54449	0,15102	2,1902	2,8483	1,75	3,25
	People management	45	2,5389	0,82047	0,12231	2,2924	2,7854	1,25	4,00
	Total	71	2,5599	0,73493	0,08722	2,3859	2,7338	1,25	4,00

Table 4-29 below presents the findings of the ANOVA analysis for Main responsibility.

Table 4-29: ANOVA results for Main responsibility

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Finance	Between Groups	0,779	2	0,389	0,717	0,492
	Within Groups	36,912	68	0,543		
	Total	37,691	70			
Business management	Between Groups	2,591	2	1,296	1,659	0,198
	Within Groups	53,106	68	0,781		
	Total	55,697	70			
Governance	Between Groups	0,041	2	0,021	0,038	0,963
	Within Groups	37,205	68	0,547		
	Total	37,246	70			
Human resources	Between Groups	0,208	2	0,104	0,188	0,829
	Within Groups	37,600	68	0,553		
	Total	37,808	70			

This indicates that there are no significant differences between the various job levels on any of the factors. The perception of the respondents is similar pertaining to the factors.

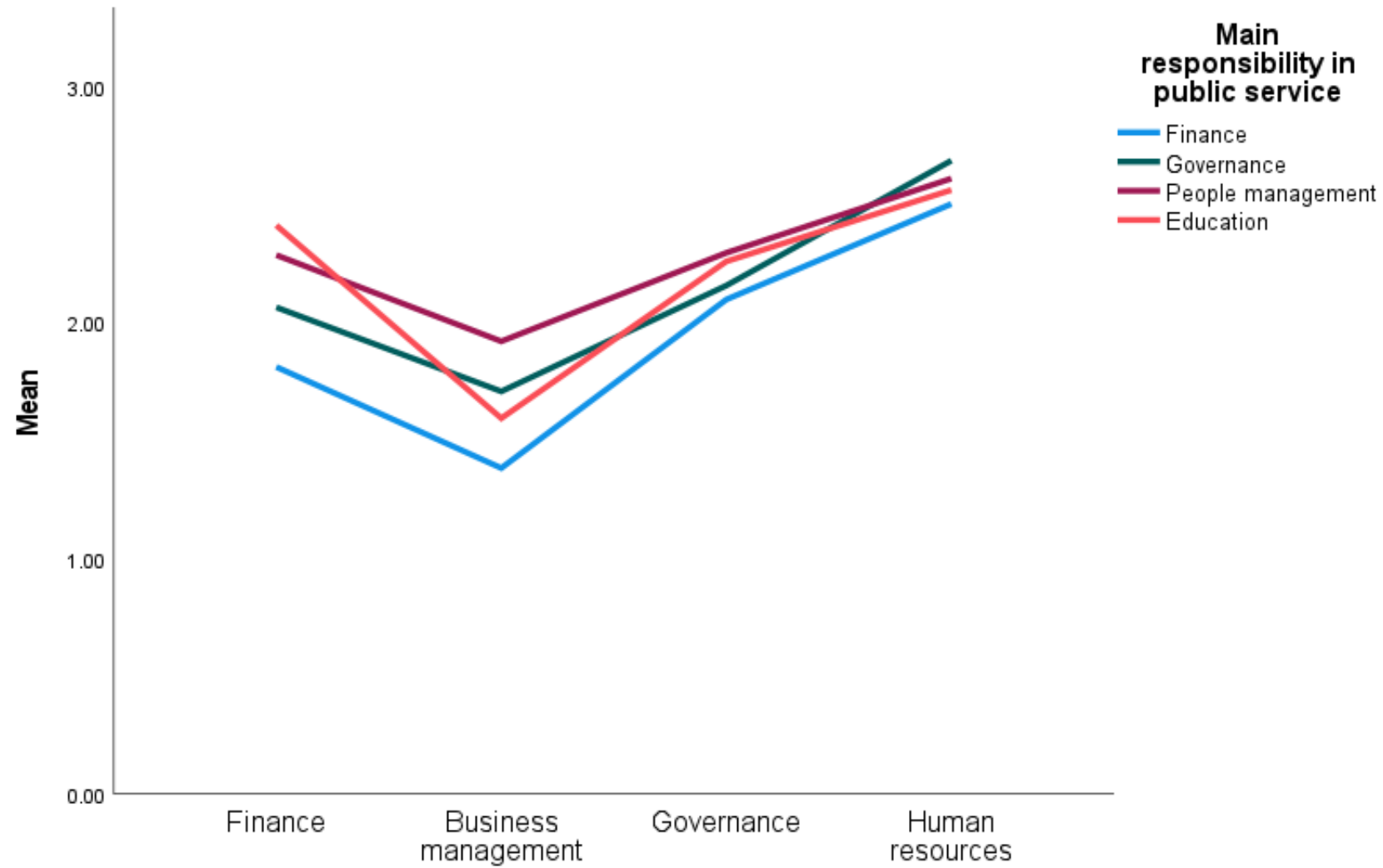


Table 4-30 below presents the descriptives for Years in current position.

Table 4-30: Descriptives of Years in current position

Descriptives									
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Finance	< 1 year	18	2,0309	0,64542	0,15213	1,7099	2,3518	1,00	3,33
	2-5 years	71	2,2457	0,75451	0,08954	2,0671	2,4243	1,00	3,89
	6-10 years	34	2,3268	0,68708	0,11783	2,0871	2,5665	1,00	3,56
	> 10 years	28	2,0357	0,73395	0,13870	1,7511	2,3203	1,00	4,00
	Total	151	2,1994	0,72581	0,05907	2,0827	2,3161	1,00	4,00
Business management	< 1 year	18	1,8056	0,60970	0,14371	1,5024	2,1088	1,00	3,25
	2-5 years	71	1,7077	0,85459	0,10142	1,5055	1,9100	1,00	4,00
	6-10 years	34	1,6765	0,67848	0,11636	1,4397	1,9132	1,00	3,75
	> 10 years	28	1,7143	0,89161	0,16850	1,3686	2,0600	1,00	4,00
	Total	151	1,7136	0,79288	0,06452	1,5861	1,8411	1,00	4,00
Governance	< 1 year	18	1,9861	0,67231	0,15847	1,6518	2,3204	1,00	3,25
	2-5 years	71	2,2711	0,71807	0,08522	2,1012	2,4411	1,00	4,00
	6-10 years	34	2,2941	0,71103	0,12194	2,0460	2,5422	1,25	4,00
	> 10 years	28	2,1786	0,76937	0,14540	1,8802	2,4769	1,00	4,00
	Total	151	2,2252	0,72039	0,05862	2,1093	2,3410	1,00	4,00
Human resources	< 1 year	18	2,4306	0,77082	0,18168	2,0472	2,8139	1,00	3,75
	2-5 years	71	2,6373	0,70050	0,08313	2,4715	2,8031	1,00	4,00
	6-10 years	34	2,7353	0,75111	0,12881	2,4732	2,9974	1,25	4,00
	> 10 years	28	2,4375	0,78653	0,14864	2,1325	2,7425	1,00	3,75
	Total	151	2,5977	0,73823	0,06008	2,4790	2,7164	1,00	4,00

Table 4-31 below presents the findings of the ANOVA analysis for Years in current position.

Table 4-31: ANOVA results for Years in current position

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Finance	Between Groups	1,965	3	0,655	1,250	0,294
	Within Groups	77,055	147	0,524		
	Total	79,020	150			
Business management	Between Groups	0,202	3	0,067	0,105	0,957
	Within Groups	94,098	147	0,640		
	Total	94,300	150			
Governance	Between Groups	1,401	3	0,467	0,898	0,444
	Within Groups	76,443	147	0,520		
	Total	77,844	150			
Human resources	Between Groups	1,977	3	0,659	1,214	0,307
	Within Groups	79,770	147	0,543		
	Total	81,747	150			

This indicates that there are no significant differences between the various job levels on any of the factors. The perception of the respondents is similar pertaining to the factors.

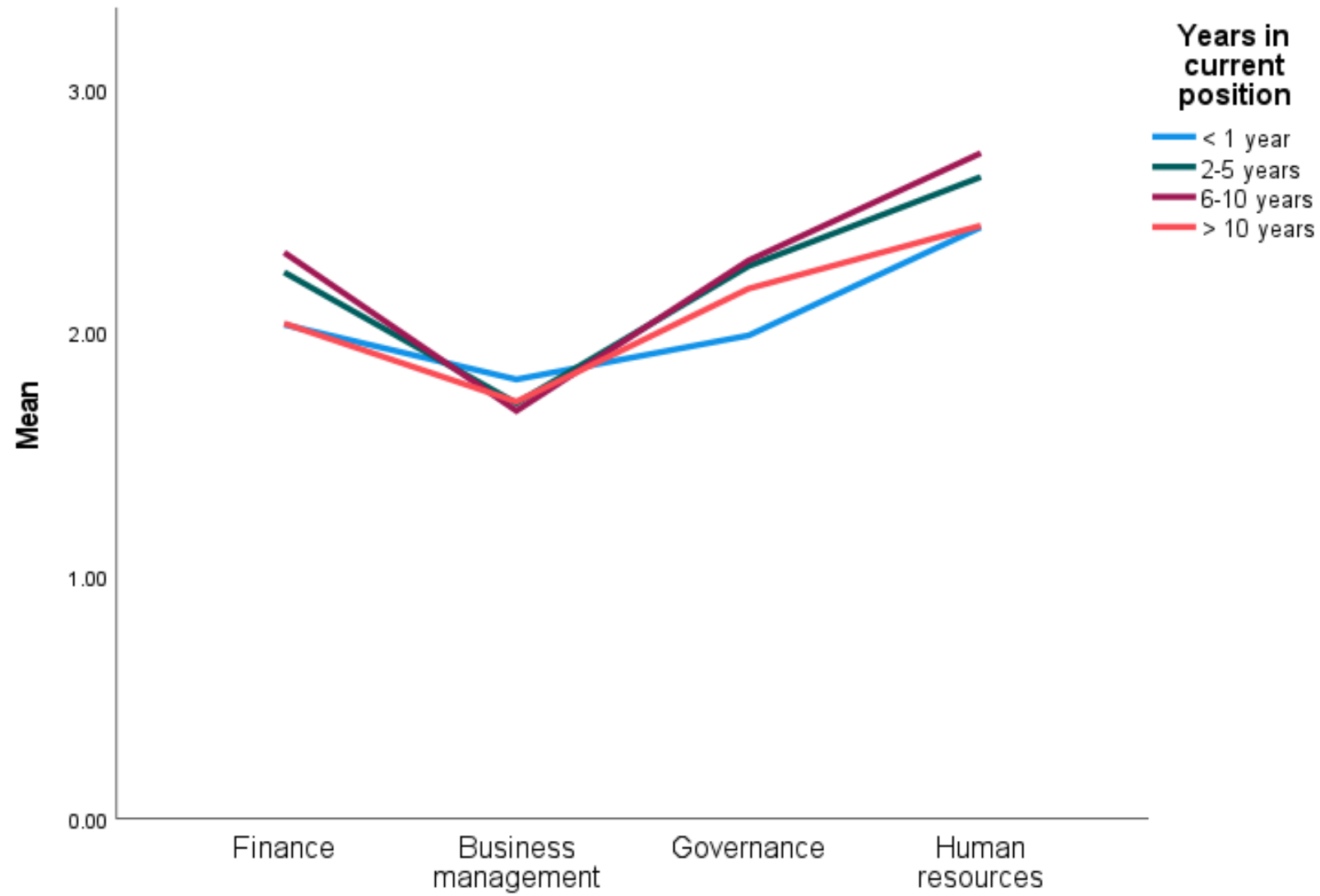


Table 4-32 below presents the descriptives for Total years within the Public Service.

Table 4-32: Descriptives for Total years within the Public Service

Descriptives									
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Finance	<10 years	68	2,3350	0,72632	0,08808	2,1592	2,5108	1,00	3,89
	10-20 years	50	2,0689	0,71160	0,10063	1,8667	2,2711	1,00	3,78
	20-30 years	21	2,0688	0,77974	0,17015	1,7138	2,4237	1,00	4,00
	>30 years	12	2,2037	0,62105	0,17928	1,8091	2,5983	1,00	3,56
	Total	151	2,1994	0,72581	0,05907	2,0827	2,3161	1,00	4,00
Business management	<10 years	68	1,7868	0,79676	0,09662	1,5939	1,9796	1,00	4,00
	10-20 years	50	1,7100	0,90260	0,12765	1,4535	1,9665	1,00	4,00
	20-30 years	21	1,4762	0,54144	0,11815	1,2297	1,7226	1,00	2,75
	>30 years	12	1,7292	0,63477	0,18324	1,3259	2,1325	1,00	3,25
	Total	151	1,7136	0,79288	0,06452	1,5861	1,8411	1,00	4,00
Governance	<10 years	68	2,2647	0,71352	0,08653	2,0920	2,4374	1,00	4,00
	10-20 years	50	2,1400	0,73220	0,10355	1,9319	2,3481	1,00	4,00
	20-30 years	21	2,3333	0,78793	0,17194	1,9747	2,6920	1,25	4,00
	>30 years	12	2,1667	0,62462	0,18031	1,7698	2,5635	1,25	3,50
	Total	151	2,2252	0,72039	0,05862	2,1093	2,3410	1,00	4,00
Human resources	<10 years	68	2,6434	0,76942	0,09331	2,4571	2,8296	1,00	4,00
	10-20 years	50	2,4500	0,70530	0,09974	2,2496	2,6504	1,00	3,75
	20-30 years	21	2,6548	0,65420	0,14276	2,3570	2,9525	1,50	3,75
	>30 years	12	2,8542	0,80098	0,23122	2,3452	3,3631	1,25	4,00
	Total	151	2,5977	0,73823	0,06008	2,4790	2,7164	1,00	4,00

Table 4-33 below presents the findings of the ANOVA analysis for Total years within the Public Service.

Table 4-33: ANOVA results for Total years within the Public Service

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Finance	Between Groups	2,460	3	0,820	1,574	0,198
	Within Groups	76,560	147	0,521		
	Total	79,020	150			
Business management	Between Groups	1,551	3	0,517	0,820	0,485
	Within Groups	92,748	147	0,631		
	Total	94,300	150			
Governance	Between Groups	0,756	3	0,252	0,480	0,696
	Within Groups	77,089	147	0,524		
	Total	77,844	150			
Human resources	Between Groups	2,090	3	0,697	1,286	0,281
	Within Groups	79,656	147	0,542		
	Total	81,747	150			

This indicates that there are no significant differences between the various job levels on any of the factors. The perception of the respondents is similar pertaining to the factors.

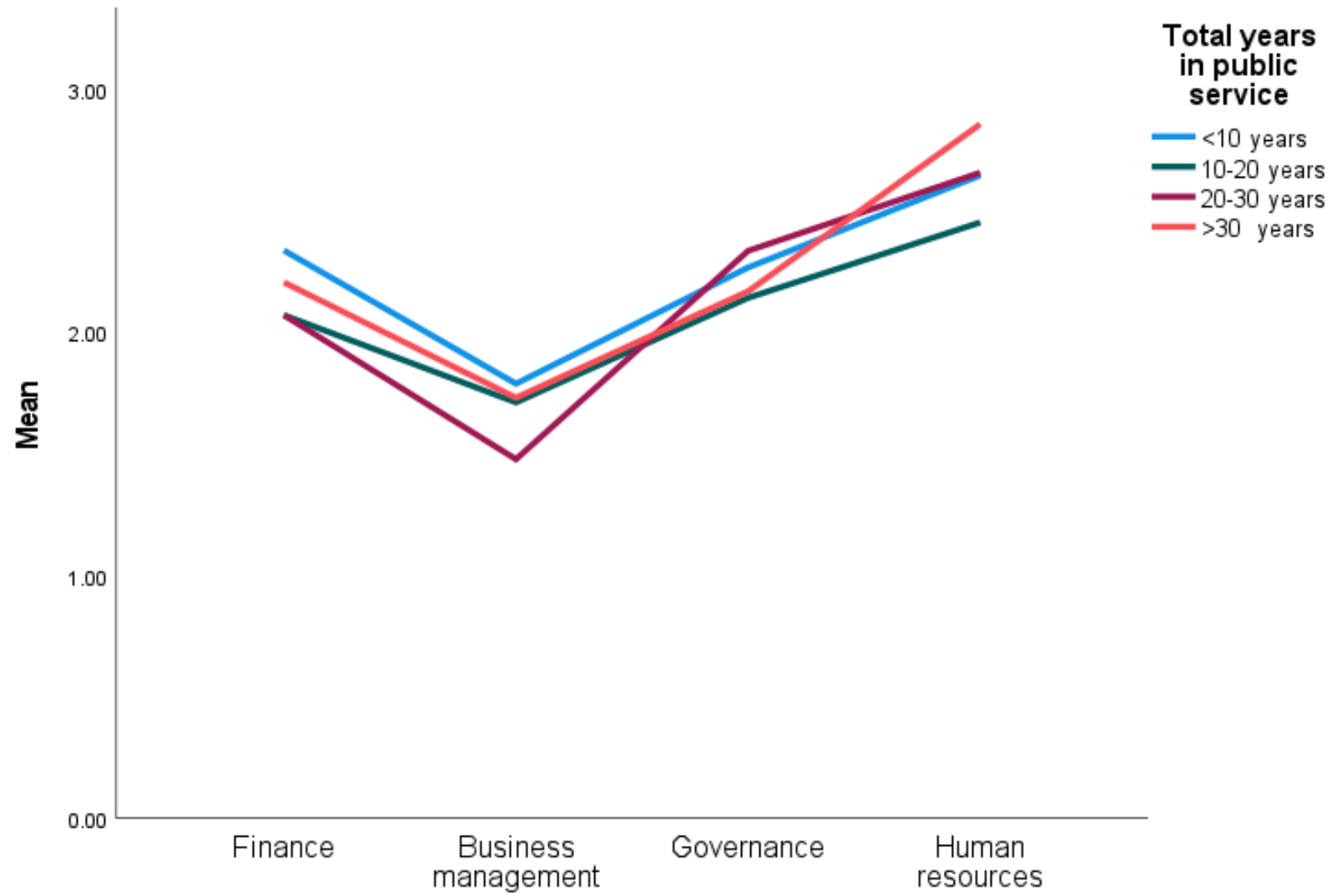


Table 4-34 (below) presents the descriptives for Higher qualification obtained.

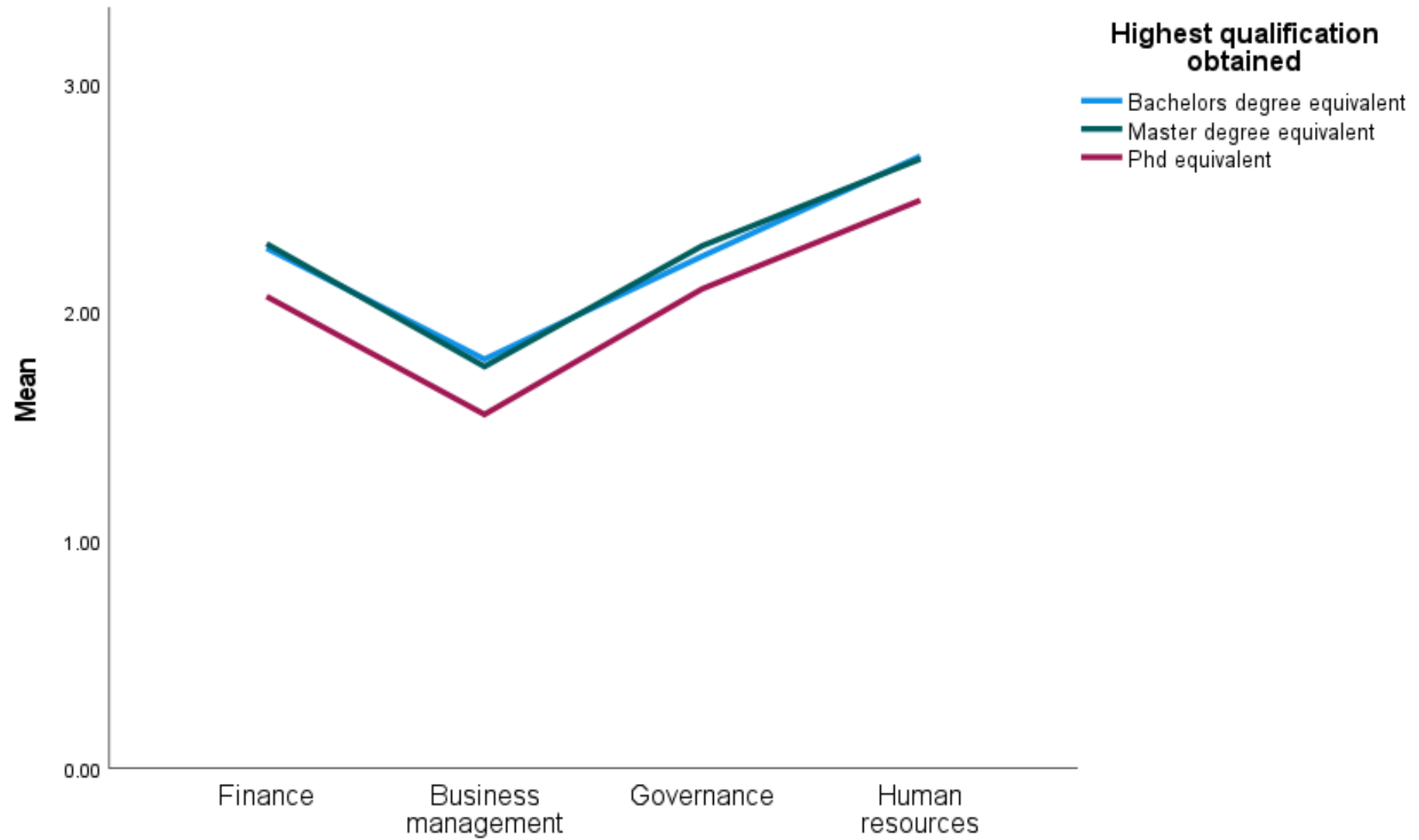
Table 4-34: Descriptives for Highest qualification obtained

Descriptives									
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Finance	Bachelors degree equivalent	36	2,2778	0,79660	0,13277	2,0082	2,5473	1,00	3,78
	Master degree equivalent	52	2,2970	0,76625	0,10626	2,0837	2,5103	1,00	4,00
	Phd equivalent	20	2,0667	0,73030	0,16330	1,7249	2,4085	1,00	3,33
	Total	108	2,2479	0,76794	0,07390	2,1015	2,3944	1,00	4,00
Business management	Bachelors degree equivalent	36	1,7917	0,83773	0,13962	1,5082	2,0751	1,00	3,75
	Master degree equivalent	52	1,7596	0,88694	0,12300	1,5127	2,0065	1,00	4,00
	Phd equivalent	20	1,5500	0,61022	0,13645	1,2644	1,8356	1,00	3,25
	Total	108	1,7315	0,82365	0,07926	1,5744	1,8886	1,00	4,00
Governance	Bachelors degree equivalent	36	2,2431	0,69818	0,11636	2,0068	2,4793	1,00	4,00
	Master degree equivalent	52	2,2885	0,73495	0,10192	2,0838	2,4931	1,00	4,00
	Phd equivalent	20	2,1000	0,70431	0,15749	1,7704	2,4296	1,00	4,00
	Total	108	2,2384	0,71400	0,06870	2,1022	2,3746	1,00	4,00
Human resources	Bachelors degree equivalent	36	2,6806	0,72114	0,12019	2,4366	2,9246	1,00	4,00
	Master degree equivalent	52	2,6683	0,78391	0,10871	2,4500	2,8865	1,00	4,00
	Phd equivalent	20	2,4875	0,71853	0,16067	2,1512	2,8238	1,25	3,75
	Total	108	2,6389	0,74831	0,07201	2,4961	2,7816	1,00	4,00

Table 4-35 below presents the findings of the ANOVA analysis for Highest qualification obtained.

Table 4-35: ANOVA results for Highest qualification obtained

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Finance	Between Groups	0,814	2	0,407	0,686	0,506
	Within Groups	62,287	105	0,593		
	Total	63,101	107			
Business management	Between Groups	0,830	2	0,415	0,607	0,547
	Within Groups	71,758	105	0,683		
	Total	72,588	107			
Governance	Between Groups	0,514	2	0,257	0,500	0,608
	Within Groups	54,034	105	0,515		
	Total	54,548	107			
Human resources	Between Groups	0,566	2	0,283	0,500	0,608
	Within Groups	59,351	105	0,565		
	Total	59,917	107			



This indicates that there are no significant differences between the various job levels on any of the factors. The perception of the respondents is similar pertaining to the factors.

From the ANOVA analyses above it is evident that none of the demographic variables indicate a statistical significant difference pertaining to the factors. Therefore, the respondents' perception of effective management within the Public Service of South Africa is similar.

A summary of the quantitative findings will now be presented.

4.10 Summary of quantitative findings

In total, 151 respondents from DHET and HEIs completed the questionnaire. The perceptions of these two groups on effective management within the Public Service of South Africa were explored with descriptive and inferential statistics.

The quantitative findings are presented with reference to research objectives 1 and 2 in Table 4-36 below.

Table 4-36: Quantitative findings linked with research objectives 1 and 2

Research objective	Method of inquiry (Statistical method)	Quantitative findings
To identify the factors and sub-factors that contribute most significantly towards effective management within the Public Service of South Africa	Factor analysis using principal axis factoring and a direct oblimin rotation was performed.	The items clustered around four factors and new names were identified: • Financial management • Business management • Governance • Human resource management The sub-factors will be presented in Chapter 5 as part of the discussion on whether the variables cluster according to the factors as identified from the literature review or differently.
To explore the difference of the perceptions between those in policy (DHET) versus those in practice (HEIs)	The independent samples t-test measured whether there was a statistical significant difference between the means of the two groups of DHET and HEI respondents. This was to determine if each demographic frequency had a significant effect on respondents' perception of effective management within the Public Service of South Africa.	No significant difference was observed between the two groups of DHET and HEI respondents. From the ANOVA analyses above it is evident that none of the demographic variables indicated a statistical significant difference pertaining to the factors. The respondents' perception of effective management within the Public Service of South Africa is similar.

In addition to the quantitative data analysis, the qualitative data analysis, which differs in terms of design and outcomes, will now be presented.

SECTION B: QUALITATIVE DATA ANALYSIS

Qualitative analysis provides depth to research. Qualitative research can be defined as a variety of data collection techniques which could provide rich social descriptions (Vaismoradi & Snelgrove, 2019). Stated differently, qualitative research is more flexible in nature and therefore rich meaning from the data is preserved. Qualitative data is typically obtained from documents and other non-numerical data sources to assist the researcher to better understand the setting of the research problem.

For this study, different authoritative factors and the perspective from grassroots level will assist the researcher to realise the research objectives. The process to realise the research objectives involves the development of themes through systematic analysis of the highlights of the 2019 PSES and expert interviews in concurrent phases to the point of data saturation. Before the phases of qualitative data analysis are presented an introduction to a theme and thematic analysis requires more attention.

4.11 Defining a theme

Themes are the building blocks of thematic analysis. A theme is described as the circumstantial message and the rationale of the data (Vaismoradi & Snelgrove, 2019) in qualitative research. In other words, a theme is comprised of information that can be linked to a specific topic which exists within that particular environment. The interrelated items or components of a theme are clustered together to form an identifiable pattern.

4.12 Thematic analysis

Thematic analysis is a method of enquiry within qualitative descriptive research which is associated with pattern identification. Thematic analysis is defined as “a method for identifying, analysing, and reporting patterns or themes within data” (Braun & Clarke, 2006:79). By identifying, analysing and reporting patterns or themes the researcher can present the perspectives, knowledge and values from a qualitative dataset in a structured format. For example, in this study, the researcher aims to identify, analyse and report themes to present the perspectives from experts, as well as knowledge and values from the 2019 PSES in a structured format.

Thematic analysis focuses on providing rich descriptions from the data. Rich descriptions could be generated for each theme based on evidence in the data (Vaismoradi & Snelgrove, 2019). Rich descriptions have the ability to create meaning from the data. For this study, the creation of meaning from the data could assist the researcher (in combination with the quantitative research

analysis) in an attempt to make a significant original contribution to knowledge by developing a framework for effective management in the Public Service of South Africa.

Throughout the thematic analysis process flexibility should be displayed. Flexibility is considered one of the benefits of thematic analysis (Braun & Clarke, 2006:78). In other words, during the thematic analysis process the researcher should demonstrate flexibility without compromising the rigour of analysis.

Inductive analysis is defined as a process to code data, but not with a pre-existing coding frame in mind (Braun & Clarke, 2006:83). This type of analysis is considered data-driven. An inductive approach is where the data is allowed to have a substantial impact on the themes. This type of approach is most suitable for research of this nature where the main objective is to develop a framework. On the other hand, a deductive approach involves the presence of preconceived themes, based on previous knowledge, when working with the data (Braun & Clarke, 2006:83). For this study, an inductive approach was applied.

4.12.1 Steps of the thematic analysis

Thematic analysis follows a combination of steps, but the steps are not necessarily completed in chronological order. Thematic analysis was conducted by following the steps of the six-phase process (below) as developed by Braun and Clarke (2019?) and applied to this study as follows:

Step 1: Familiarisation

The data was read and re-read by the researcher to become acquainted with the content of the documents.

Step 2: Coding

Codes or labels were identified by the researcher for the central descriptions of the data. These codes, with the relevant data extractions, were organised for further examination.

Step 3: Development of themes

Significant broader patterns of meaning were identified from the codes and relevant data were extracted. Each potential theme could then be validated against the data.

Step 4: Reviewing the themes

Each potential theme was examined against the data to assist the researcher to determine potential compatibility with the data.

Step 5: Definition and theme naming

After compatibility had been established, the researcher defined each potential theme. The researcher named each theme according to the scope and focus of that particular topic.

Step 6: Writing up

The themes, as the output of thematic analysis, were arranged in written format which will be discussed in Chapter 5 with reference to the literature review.

These steps of the thematic analysis can be combined into a process of data gathering, organising and filtering of the data, interpretation and then the presentation of themes. Braun and Clarke (2006:80) emphasise the role of the researcher in identifying patterns or themes, since themes cannot just 'emerge' from the data. For this study, the researcher fulfils an active role in generating themes from the 2019 PSES and later, expert interviews.

4.13 Public Service Employee Survey

The objective of the Public Service Employee Survey (PSES) is "to provide information to support the continuous improvement of People management practices in the federal public service" (Treasury Board of Canada Secretariat, 2019). Similarly, the PSES was designed to request Public Service employees' perceptions and opinions with regard to their work environment (for example, communication with direct managers) and overall job satisfaction such as skills and career aspirations (Statistics Canada, 2020).

The results of the PSES assist national departments and agencies to identify "areas of strength and concern related to People management practices, benchmark and track progress over time, and inform the development and refinement of action plans" (Treasury Board of Canada Secretariat, 2019). The overall aim of the PSES is effective management which results in an efficient Public Service which, in turn, enhances the lives of all Canadians. The first PSES was conducted in 1999 and subsequent surveys followed triennially until 2017. From 2018 onwards the PSES is conducted annually.

The PSES was rolled out to 86 departments and agencies. Of the total of 292 750 employees who were invited to respond, 182 306 employees completed the questionnaire which is a response rate of 62.3%. The highlights of the 2019 PSES were organised according to six themes. Themes relevant to the objectives of this study were identified by the researcher and will now be presented (Treasury Board of Canada Secretariat, 2020).

4.13.1 Employee engagement

Overall, employees are considered to be engaged in their work and department or agency. The results show that 81% of the employees like their job. Satisfaction from their work is attained from 76% of the employees. Similarly, 71% of employees are satisfied with their department or agency and 68% of the employees feel cherished at work.

4.13.2 Leadership

Perceptions on leadership from the PSES suggest that 79% of employees are pleased with the quality of supervision that they receive. The confidence level of employees in senior management is at 62%.

4.13.3 Workforce

The workforce section consists of three sub-sections, namely Performance management, Career development and Empowerment. Each one will now be discussed.

4.13.3.1 Performance management

From the results it is evident that 74% of the employees feel comfortable with their work objectives. It is clear and they know what is expected of them. Similar positive results indicate that 65% of employees are given recognition for a job well done.

4.13.3.2 Career development

The employees considered Career development in a positive light. Training, on the other hand, could require a little more attention. Only 69% of the employees see the correlation between their training and the know-how to do their job. Only 57% of the employees agree that their organisation provides sufficient support in terms of career development. More than half (52%) of the employees are confident that their education, skills and experience levels make them suitable candidates for promotion within their department or agency. Career progress is hampered, but not exclusively influenced by the following factors: lack of opportunities in their region, lack of access to development, lack of access to further learning and more specifically, lack of improvement of their second (and an official) language.

4.13.3.3 Empowerment

From the results it is evident that 72% of the employees feel supported in their department or agency and can deliver quality services. New ideas from employees are supported by the department or agency 63% of the time.

4.13.4 Workplace

This section consists of the following seven sub-sections: Work-life balance and workload, Organisational performance, Respectful workplace, Ethical workplace, Harassment, Discrimination and Duty to accommodate. Each one will now be discussed.

4.13.4.1 Work-life balance and workload

The results report that 82% of the employees state that their immediate manager supports flexible work hours (obviously only in certain operational situations). Similarly, 77% of the employees are confident that their work-life balance is supported by their department or agency.

4.13.4.2 Organisational performance

Factors that influence the quality of work were assessed and 38% of the employees mentioned that excessively complicated or even redundant business processes hampered the quality of their work. The lack of resources was also identified as a factor that 36% of the time negatively influenced the quality of work. With reference to change management, only half of the employees stated that change was managed satisfactorily in their department or agency.

4.13.4.3 Respectful workplace

From the PSES results it is reported that most employees considered their workplace to be respectful, even though mixed results were obtained. A sense of respect from the department or agency was experienced by 82% of the employees. A sense of respect from colleagues, in terms of ideas and opinions, was experienced by 79% of the employees. Similarly, 75% of the employees had confidence in their department or agency to respect their individual differences, such as culture and work styles.

4.13.4.4 Ethical workplace

When faced with an ethical situation within the workplace, 71% of the employees are confident of where to find help to resolve the situation. Similarly, 64% of the employees are pleased with the way in which interpersonal issues within the department or agency is sorted out.

4.13.4.5 Harassment

The results reported that 14% of the employees had been exposed to some form of harassment within their work environment within the last year. Harassment originated predominantly from managers (60%) and colleagues (51%), and the types of harassment included negative words, unfairness, being omitted from a discussion or group and being ignored. Grievances and formal

complaints of harassment were only filed in 7% of the time. No action was considered as an option to deal with harassment; in this case, 26% of the employees who stated that they had been harassed, decided to take this option. During the last year 18% of the employees noticed harassment in person.

4.13.4.6 Discrimination

Discrimination was experienced by only 8% of the employees during the previous year. Discrimination originated predominantly from those in management (76%) and from colleagues (38%). Discrimination experienced by employees was categorised pertaining to gender (29%), age (29%) and race (26%). Similar to harassment, the no-action option was exercised by 49% of the employees who stated that they had experienced discrimination. Grievances and formal complaints of discrimination were filed in only 6% of the time. Witnessing discrimination within the work environment over the past year was reported by 10% of the employees.

4.13.4.7 Duty to accommodate

Before the results of the 2019 PSES with reference to Duty to accommodate are presented the Duty to accommodate should be explained. The duty to accommodate is the responsibility that is placed on departments and agencies to adjust their rules, policies and practices, to empower employees to be able to participate to the best of their abilities and to prevent or reduce discrimination (Canadian Human Rights Commission, 2020?). In other words, the duty to accommodate focuses on the special needs of an employee and adjusts the work environment to be more accessible and supportive. For example, wheelchair-friendly access to buildings.

From the results it is evident that 16% of the employees consider themselves to have special needs related to their day-to-day work activities. Measures to accommodate their needs have been requested from the departments and agencies. These measures are considered supportive 80% of the time.

4.13.5 Workplace well-being

This section consists of two sections, namely Psychological health of workplace and Work-related stress.

4.13.5.1 Psychological health of workplace

The results report that 83% of the employees have stated that they feel cared for by their immediate manager. The way in which departments or agencies raise awareness about mental health is approved by 73% of the employees. Similarly, 68% of managers indicate their own

competence in supporting employees with mental health concerns. Only 61% of the employees consider the psychological health of their department or agency on par.

4.13.5.2 Work-related stress

The results show high to very high levels of stress for 17% of the employees. Emotional fatigue is experienced by 29% of the employees at the end of a day at work. Reasons for this stressful workplace include not enough staff per task at hand and disagreements relating to remuneration and compensation of the employees. Similarly, other main explanations for workplace stress include a heavy workload (24%), priorities that are either changing or competing (19%), unrealistic deadlines (17%) and the challenge to harmonise work and life.

By extracting themes from the 2019 PSES the researcher aims to answer research objective 3, namely to identify a few lessons on effective management that could be learned from the Public Service of Canada. However, the other side of the scale requires more attention.

4.13.6 A different perspective on the 2019 PSES results

A different perspective on the 2019 PSES results provides for a more balanced approach. The results of the 2019 PSES are considered overly positive and to a certain degree misleading (Cole, 2020). Cole has been involved in this process since 1999 and notes that the overall message from the survey is that the employees are mostly despondent. He highlights the following concerns (Cole, 2020):

- Only 24% feel their agency does a great job supporting career development.
- Only 21% seriously feel that any good idea they present would be supported.
- Only 25% think their workplace is very healthy.
- Only 15% think that change is handled very well in their agency.
- Only 27% feel the agency does a great job of explaining what it does.
- Lastly, 38% gave their implicit opinion and did not return the survey.

The list provides concerns raised by a man who has extensive work experience of various agencies of the Canadian Public Service over the past 34 years. It is important to pause with attention to these concerns, because it balances the predominantly favourable picture that was created by the highlights of the 2019 PSES.

4.13.7 Themes derived from the 2019 PSES highlights

From the 2019 PSES highlights and by taking the observations by Cole (2020) into consideration, the researcher has identified the following themes to improve management within the Public Service:

- High employee engagement fosters a culture for job satisfaction.
- The development of leadership and management skills is required.
- Public servants require clear goals and training plans as empowerment strategies.
- Aims are set for a work-life balance in terms of individual workload, less bureaucracy and a culture of respect in terms of ethics, no harassment or discrimination.
- Workplace well-being factors (psychological health and minimum work-related stress) are essential to achieve a harmonised work-life.

The qualitative data analysis is further supported by interviews.

4.14 Expert interviews

Expert interviews, as a method of descriptive qualitative enquiry, were conducted with three purposefully selected individuals. A deep-dive interview format style with content-generating questions was used to obtain in-depth information to assist the researcher to answer research objective 3, namely to identify a few lessons on effective management that could be learned from the Public Service of Canada.

The interviewees are based in the Ontario province of Canada and have substantial knowledge of the Public Service of Canada. Interviewee 1 is a senior policy advisor and has a strong financial background, with expertise in economic development and innovation. Interviewee 2 has extensive knowledge of the Public Service of South Africa. This respondent has been employed as a senior management official within the research granting and funding environment in South Africa, and currently holds a position within research funding at a publicly funded HEI in Canada. Interviewee 3 has extensive knowledge and years of service in the Public Service of Canada. As an executive at a federal research granting agency, this respondent focuses on the interaction between research and higher education which includes management of foresights, partnerships in research and development.

The overall intent of the elite interviews is as follows:

- To describe effective management within the Public Service
- To identify the indicators that measure effective management within the Public Service
- To identify the factors that influence effective management within the Public Service
- To provide a strategy to improve management within the Public Service

Following the research methodology as set out in the previous chapter, Table 4-37 below presents the most important responses from the expert interviews according to the overall intent of the elite interviews.

Table 4-37: Interview responses summarised according to themes

Overall intent of elite interviews	Selected responses from interviewees	Main theme per interviewee
A description of effective management within the Public Service	1: "...to make sure that their skills sets are being used to the best of their capacity..." "...being open to new ideas, new ways of doing things, different approaches and also being honest" "...where there is room for top-down as well as bottom-up communication and response and feedback ... responsiveness"	Engagement through communication, application of skills and feedback
	2: "Within Higher Education it should be about meeting the needs of faculty and students, while maintaining fair and transparent processes. It is about meeting the needs of the funders while ensuring that academic integrity is retained." "Foremost it is about meeting the needs of society for a better Canada."	Servanthood and accountability in all directions
	3: "...successfully fulfilling the mandate of the organisation in support of its priorities, and to do so, in alignment with the values"	Operational excellence achieved through respecting authority and aligned with values
Indicators that measure effective management within the Public Service	1: "Indicators for successful management are managers who are continuously advancing the idea of what a civil service is about, and it is serving the public." "There is a leadership model ... three core characteristics...: (1) Character driven...	Serving the public by innovative ideas and technologies Willingness to develop Forward thinking and people-oriented to make a difference

Overall intent of elite interviews	Selected responses from interviewees	Main theme per interviewee
	(2) Forward focus... (3) Inclined for difference-making”	
	2: “[my department] has phenomenal systems to track these [quantitative] ‘ <i>indicators</i> ’ ... lacks measuring qualitative indicators”	Qualitative and quantitative approach to service delivery
	3: “...six themes ... identify as being suitable indicators for successful management: (1) An enabling workforce (2) Reconciliation with indigenous peoples (3) Technology innovation (4) Effective policy making (5) Effective programme and service delivery (6) Governance ... to deliver [public services] today and for the future”	Alignment of public services to meet the needs of the Public Service and the public
Factors that influence effective management within the Public Service	1: “... (1) direction from ... senior executives (2) funding (3) the will of the people ... are some of the critical factors”	Delivery on expectations

Overall intent of elite interviews	Selected responses from interviewees	Main theme per interviewee
	2: "Successful management is thinking in terms of foresight and systems thinking..."	Planning Systems thinking
	3: "...the priorities of the government in power, the mandate letters and then ... responses to environmental pressure, world pressures ... our ability to respond rapidly ... [additional] ... the strength of the Public Service"	Empowerment to deliver and respond through planning in a global setting
A strategy to improve management within the Public Service	1: "...a clear understanding of what your workers require, what the civil service requires as well as what the public requires." "...for Higher Education ... keep strong networks, keep strong contact with local employers and be aware of what they want"	Interaction between public servants, the Public Service and the public through stakeholder analysis and networking
	2: "Diversity in ways of thinking and diversity of people with different backgrounds, values and ideologies in management for rich systems thinking."	The balancing of ways of thinking and the diversity of people to promote harmony within the system
	3: "...our strategy for improving how we manage as an organisation that funds Higher Education, number 1 is ... understanding our environment ... [number 2] understanding the needs of your stakeholders ... [number 3] would be ... identifying key priorities ... that we can truly achieve; and be resilient ... to mitigate the risk of affecting our delivery on our priorities"	To focus on service delivery, an awareness of the environment and the needs of the stakeholders is required by the organisation.

4.15 Summary of qualitative findings

The qualitative findings of this study will now be summarised according to the identified and generated themes. The qualitative findings from the 2019 PSES and the elite interviews are presented with reference to research objective 3 in Table 4-38 below.

Table 4-38: Qualitative findings linked to research objective 3

Research objective	Method of inquiry (Thematic analysis)	Qualitative findings
To identify a few lessons on effective management that could be learned from the Public Service of Canada	Theme identification from 2019 PSES highlights and observations made by Cole (2020)	Theme identification: • High employee engagement • Development of leadership and management skills • Clear goals and training plans as empowerment strategies • Strive towards a work-life balance • Workplace well-being factors to achieve a harmonised work-life
	Generation of themes from expert interviews	Themes that emerged from the perspective of the researcher and new names were identified: • Effective management is described as the reciprocal engagement and <i>servantship</i> to realise operational excellence in the Public Service. • The alignment of public services through innovation and skills development to meet the needs of the Public Service and the public through quantitative approaches indicate effective management. • Empowered public servants have the capacity to deliver and to respond to global stimuli (through multi-level planning and systems

Research objective	Method of inquiry (Thematic analysis)	Qualitative findings
		thinking skills) as factors to influence effective management. • To deliver quality public services, an awareness of the environment and the capacity to influence it are required by the Public Service.

4.16 Summary

In this study, the research narrative unfolds by presenting the results, as obtained from the collected data, in text format and graphic illustrations to realise the research objectives. This chapter presents the results from the explanatory sequential mixed-methods approach that has been followed to gather and analyse data.

In Section A, the quantitative data analysis was conducted with descriptive statistical analysis which included factor analysis, and inferential statistical analysis, such as correlations and comparisons of demographic groups followed. In Section B, the qualitative data analysis method, namely thematic analysis, assisted the researcher to derive themes from the 2019 PSES and also to generate themes from the three elite interviews.

In the next and final chapter, the most significant results will be examined through the illuminating lens of the literature from Chapter 2. Lessons on successful management that could be learned from the Public Service of Canada will be identified. From the integration of the literature and the results, a conceptual framework for effective management within the Public Service of South Africa will be developed. Recommendations will be made and possible areas for further research will be identified.

CHAPTER 5 DISCUSSION AND CONCLUSION

5.1 Introduction

This study set out with the aim of developing a framework for effective management within the Public Service of South Africa. Leveraging on the earlier definition of management, a multi-purpose platform to get the work done with focused actions through various stakeholders to achieve the collective objective, a literature review was conducted. Research from the management and related fields was examined. An explanatory sequential mixed-methods approach to gather and analyse primary and secondary data from the Public Service of South Africa and Canada was employed. Statistical and thematic analyses were applied to the data in two consecutive phases.

This chapter provides the nexus between the results and the literature. This nexus is presented as a framework for effective management within the Public Service of South Africa. Furthermore, a few lessons that could be learned from the Public Service of Canada were identified. A roadmap to assist with the practical implementation of the management framework is also provided. Limitations, recommendations and future research are recorded before this study concludes. The most significant quantitative and qualitative findings in relation with the literature will now be presented per research objective.

5.2 Quantitative results associated with the literature

To realise research objective 1, namely to identify the factors and sub-factors that contribute most significantly towards effective management within the Public Service of South Africa, relevant literature was reviewed and a questionnaire created and administered. From the literature five critical success factors were identified for effective management within the Public Service of South Africa. However, after factor analysis had been conducted, the results indicated that only four critical success factors clustered together. Table 5-1 below presents these factors, namely Financial management, Business management, Governance and Human resource management, each with the associated sub-factors.

Table 5-1: Critical success factors with the associated sub-factors

Critical success factors	Sub-factors
1) Financial management	Transparency is displayed in finances Adhering to International Financial management standards Solid Public Service finance and account management is demonstrated Anti-corruption practices are in place Application of Financial management principles Good governance are founded on governance from the corporate environment Compliance with International Accounting Standards Systems which support sound financial decisions (e.g. IT & control systems) are deployed A clean audit is the desired strategic output
2) Business management	Development of strategically savvy public servants Budgeting the Public Service with consciousness regarding taxpayers money (Public money) Values, norms and standards are aligned with the Constitution Management success results in effectiveness
3) Governance	Diversity is management by respecting others Incorporating global governance and preserving a local perspective Focus on serving the public as the (taxpaying) client Commitment from the public servant to the public enabled by the Public Service
4) Human resource management	Training and development initiatives are aligned with future requirements Improve decision-making skills Skills are developed according to Human resource management policies and procedures Development of leadership capabilities

These four critical success factors and the associated sub-factors clustered in this matrix after factor analysis were applied. This clustering matrix resonates with the reviewed literature. Some examples of this interaction are now presented. Beazley (2018) called for professionalism in the Financial management environment. Professionalism within the Public Service will enhance the decision-making process and provide support for clean audits. For the Business management factor, the research on the types of strategists and a call for the development of savvy strategists by Bryson and George (2020) was prominent. Similarly, the alignment of values, norms and standards with the Constitution and the Batho Pele principles resonates with the clustering of the factor analysis. For the Governance factor, Dlamini *et al.* (2019) have identified corruption as one of the main hindrances to strategic planning within the Public Service environment. Corrupt

behaviour is not conducive to good governance practices. The principles of good governance, as per the themes identified by the IOG (2020b), emphasise optimal functioning within the Public Service as a mechanism of effectiveness. Lastly, the leadership research by Adair (British Library, 2020) to develop individuals and build the team in order to achieve the task resonates with the training and development of public servants which is clustered under the Human resource management factor. The results further indicated that the four factors were considered to be of equal importance. This finding concurs with a similar finding pertaining to the effectiveness of funding agencies (Ramoutar-Prieschl, 2015). This finding can be traced back to the complexity of management as a phenomenon as well as the multi-level orientation within the Public Service.

A similar route was followed to realise research objective 2, namely to explore the difference in perceptions between those in policy (DHET) versus those in practice (HEIs). These two groups of respondents were consolidated based on the principle of resource dependency theory. Original research on resource dependency theory stems from the work of Pfeffer and Salancik (1978) which was reviewed by Hillman *et al.* (2009). From the results of this study it is evident that no significant difference was observed between the two groups of respondents. The respondents' perception of effective management within the Public Service of South Africa was similar. It was believed that, as stakeholders within higher education, these two groups would perceive management within the Public Service similarly. This was in fact the case and of no surprise to the researcher.

5.3 Qualitative results associated with the literature

The following themes were identified from the 2019 PSES highlights, which incorporated the observations made by Cole (2020) to improve management within the Public Service. At each theme, associated literature is presented.

- For the identified theme, *High employee engagement fosters a culture for job satisfaction*, the important research by Elton May (British Library, 2020a) on job satisfaction and group cohesion referred to as the Hawthorne studies is well-known.
- For the identified theme, *The development of leadership and management skills are required*, the Three-circle model of action-centred leadership by Adair (British Library, 2020d) and the four key leadership competencies from the Public Service Leadership Model (McDonald *et al.*, 2020) provide substance.
- For the identified theme, *Public servants require clear goals and training plans as empowerment strategies*, contemporary research include the work by Bryson and George (2020) where aspirations and capabilities are linked. Other work by Mabugu and Dawood

(2015) focus on training interventions which result in increased productivity and is therefore one of the main motivators for training and development interventions.

- For the identified theme, *A work-life balance in terms of individual workload, less bureaucracy and a culture of respect in terms of ethics, no harassment or discrimination is aimed for*, the work by Ashiagbor (2014) and Muchiro (2014) is of value. Both researchers bring a skills for the future approach and promote agility. Hlongwane (2018) emphasises the role of stewardship (the application of skills to the betterment of society) to gain respect and earn trust from the public.
- For the identified theme, *Workplace well-being factors (psychological health and minimum work-related stress) are essential to achieve a harmonised work-life*, the work of Sharma (2019) on diversity management is of value.

It was apparent from the results that there were similarities between the Canadian perspective and the South African perception of management within the Public Service. For example, *Leadership development*, as a theme that had been identified from the 2019 PSES, was originally situated in the People management factor. From the factor analysis it became evident that *Leadership development* was a better fit within the Human resource management factor.

It was clear from the results that the theme *Public servants* could be associated with *servantship* [a concept created during this study, meaning ‘servanthood’ combined with ‘stewardship’ in a strong serving relationship] in order to deliver quality public services. The literature review showed that the sub-factor *Serving the public* was originally found under Business management, but after the factor analysis had been conducted, *Serving the public* was clustered with the Governance factor.

It was clear from the results that the theme *Capacity to deliver* could be traced back to the literature, as the entire critical success factor Skills management. This factor consisted of four sub-factors which all could be associated with *Capacity to deliver*. After factor analysis, the sub-factors of *Training and development* and *Decision-making* clustered together in the new factor, Human resource management.

5.4 A few lessons from Canada

Taking the differences and similarities between South Africa and Canada into account and from the interaction between the results and the literature review, a few lessons have been identified from the extracted themes from the Public Service of Canada. Table 5-2 below presents a few lessons from the Public Service of Canada in relation to the identified themes.

Table 5-2: Lessons from the Public Service of Canada

Themes	Lessons
Effective management is described as the reciprocal engagement and <i>servantship</i> to realise operational excellence in the Public Service.	Lesson 1: Operational excellence starts with <i>servantship</i> and builds on collaboration with others.
The alignment of public services through innovation and skills development, to meet the needs of the Public Service and the public through quantitative approaches, indicate effective management.	Lesson 2: Skills development and innovation are required to meet the needs of the Public Service and to create public value through effective management.
Empowered public servants have the capacity to deliver services and to respond to global stimuli (through multi-level planning and systems thinking skills) as factors to influence effective management.	Lesson 3: Empower every public servant through capacity building initiatives (with multi-level planning and systems thinking skills) to think like a global citizen.
To deliver quality public services, an awareness of the environment and the capacity to influence it, are required by the Public Service.	Lesson 4: An awareness of the environment and the capacity to influence it are required to deliver quality public services.

Most of the theoretical concepts found in the reviewed literature have been identified in either the 2019 PSEP highlights or generated from the expert interviews or both. Links or associations between this study and the Canadian key leadership competencies (Treasury Board of Canada, 2015) as well as the Management Accountability Framework (MAF) are already embedded in the framework. The quantitative and qualitative findings are combined in a management framework.

5.5 A management framework

The quantitative and qualitative findings are by implication interwoven with another. These factors, sub-factors and themes are components that relate to another in one or on multiple levels and can be presented as a singular framework to improve management within the Public Service (see Figure 5.1 below).

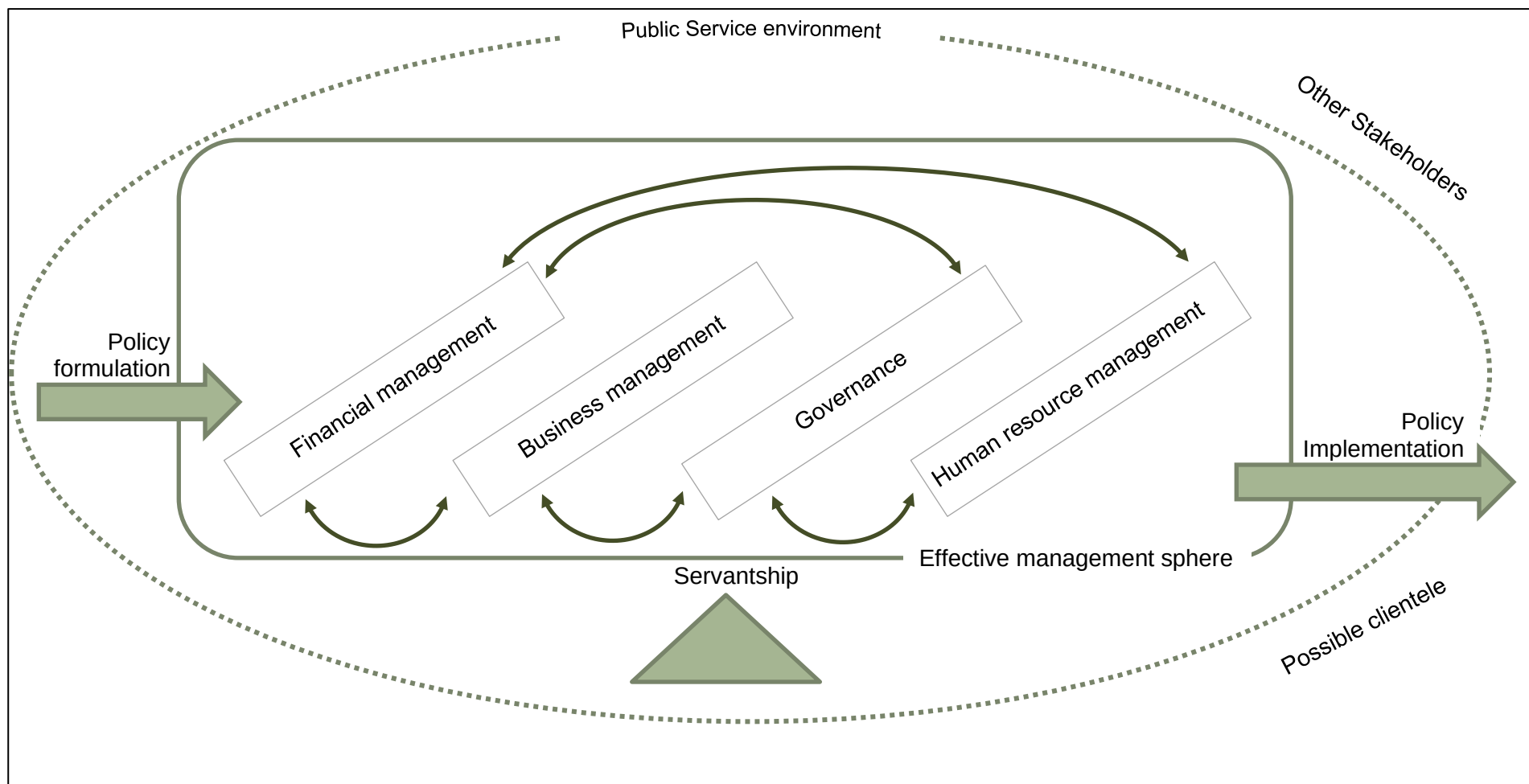


Figure 5-1: A management framework for the Public Service of South Africa

A brief description to explain the framework follows. This management framework presents four critical success factors required for effective management within the Public Service of South Africa namely Financial management, Business management, Governance and Human resource management. These four factors are situated within the effective management sphere. The relationships among the critical success factors are indicated by an arrowed line.

The lessons learnt from the Public Service of Canada are woven into the Effective management sphere. Typical key phrases, which identify these inputs, are as follows:

- Collaboration between internal and external stakeholders
- Operational excellence
- Skills development and innovation
- Creation of public value
- Empowered public servants
- Multi-level planning and systems think skills
- Thinking like a global citizen
- Awareness of the environment
- Capacity to influence the environment.

Policies that influence the sphere enters from the Public Service environment and the Implementation of policy exits the sphere towards outside of the Public Service environment where the clientele and other stakeholders are positioned. The effective management sphere is positioned on a scale where the point of balance is found when all four factors are in equilibrium with one another. When a public servant or manager reaches that specific point, it describes *servantship*.

5.6 A roadmap

When taking the research, the literature, the framework and the lessons from Canada into account, a roadmap is required to know where to start in the quest to improve management within the Public Service of South Africa. The starting point is the current situation or environment.

The destination is public servants who display *servantship* daily. To get from the starting point to the destination is a process that consists of various building blocks with the same question but requesting a different answer each time. The question is not 'if' management within the Public Service can be improved, but 'how' the public servant can be of service to the public.

The framework is not considered a one-size-fits-all approach to improving management within the Public Service but rather part of the toolkit available to both practitioners and academics alike.

5.7 Limitations, recommendations and future research

This study faced ample challenges, but challenges were seen as opportunities to grow. A major limitation involved the difficulty to access respondents for both the quantitative and qualitative components of the research. Respondents in South Africa, Canada and France were rather sceptical since the researcher was not affiliated with or employed within the South African Public Service. Therefore, a recommendation would be that this type of research be conducted *by* the Public Service *for* the Public Service. Potential future research on effective management and lessons to be learnt could be conducted between the Public Service sectors of South Africa and those of other developed or developing countries.

Another limitation was the decision not to include respondents from private HEIs, since valuable information could be obtained from them. A recommendation is to include respondents (through qualitative and quantitative data-gathering techniques) from private HEIs in similar future research. Similarly, a recommendation is to include follow-up interviews with South African representatives. This will provide the opportunity to compare data. This absence of South African interviews was mainly caused by a lack of authorisation from DHET. The extended time which was spent on data collection, also had a negative effect on possible interviews.

From the clustering of the critical success factors and sub-factors, stakeholders within the Public Service could be asked the following to provide direction for future research:

- Would you agree that these four factors are in fact critical success factors for effective management within the Public Service?
- Please provide a reason for your answer in the previous question.
- With these factors in mind, please propose a strategy on how to improve management within the Public Service.

Possible future research could also be focused on improving management between the Public Service departments, the DHET and the Department of Basic Education (DBE) through the application of the management framework. From a Public Service perspective, both of these departments are included and can potentially benefit from the implementation of the management framework, since the interconnectedness between these departments run deeper than what is observed at face value. As per the resource dependency theory, the DBE is a stakeholder of the DHET as well as a stakeholder of HEIs. The interdependency can further be expanded, by incorporating privately funded schools and HEIs as stakeholders within the Public Service. Although it was not the initial purpose of this study, the pathway to transdisciplinary research

among the fields of business management, service management and psychology has been earmarked.

The management framework could, with minor adjustments, be applied to both the public and private sectors. When generalising the management framework to the overall Public Service of South Africa, and the global service domain, *servantship* is realised when the factors function in harmony with the formulation of policy throughout policy implementation. Similarly, when generalising the framework to the private sector, management plays a dynamic role. The management implications are considered throughout the process, from the mining of the raw material through the operational endeavours to a finished product. Equilibrium among the factors within the business environment will result in *servantship*.

5.8 Conclusion

In essence, this study aimed to develop a management framework for the Public Service of South Africa by defining management, reviewing relevant literature, creating and administering a questionnaire, extracting themes from the highlights of a large scale survey and interviewing experts; thus, incorporating lessons learnt from the Public Service of Canada.

A management framework has been constructed and is supported by a roadmap. The podium for practical implementation of the framework has been prepared with trifold benefits towards the public, public servants and the Public Service. In addition, the theoretical application of the framework is aimed at supporting academics and philosophers to expand the global discussion on effective management, and more specifically, within the service domain.

This management framework is ultimately geared towards application within the Public Service environment of South Africa and other developing and developed countries, in a quest to improve management and consequently, embrace *servantship*.

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ANNEXURES



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Institutional Research Ethics Regulatory Committee

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ETHICS APPROVAL CERTIFICATE OF PROJECT

Based on approval by the Human Resource Research Ethics Committee (HRREC) on 05/06/2017, the North-West University Institutional Research Ethics Regulatory Committee (NWU-IRERC) hereby approves your project as indicated below. This implies that the NWU-IRERC grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the project may be initiated, using the ethics number below.

Project title: A framework for successful management in the public service of South Africa																												
Project Leader/Supervisor: Prof PD Gerber & Prof S Swanepoel																												
Student: AM van Zyl																												
Ethics number:	<table border="1"> <tr> <td>N</td><td>W</td><td>U</td><td>-</td><td>0</td><td>0</td><td>5</td><td>0</td><td>8</td><td>-</td><td>1</td><td>7</td><td>-</td><td>A</td><td>9</td> </tr> <tr> <td colspan="3">Institution</td> <td colspan="3">Project Number</td> <td colspan="3">Year</td> <td colspan="3">Status</td> </tr> </table> Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation	N	W	U	-	0	0	5	0	8	-	1	7	-	A	9	Institution			Project Number			Year			Status		
N	W	U	-	0	0	5	0	8	-	1	7	-	A	9														
Institution			Project Number			Year			Status																			
Application Type: Doctoral																												
Commencement date: 2017-05-24	Expiry date: 2020-05-24																											
Risk:	NA																											

Special conditions of the approval (if applicable):

- Translation of the informed consent document to the languages applicable to the study participants should be submitted to the HRREC (if applicable).
- Any research at governmental or private institutions, permission must still be obtained from relevant authorities and provided to the HRREC. Ethics approval is required BEFORE approval can be obtained from these authorities.

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following:

- The project leader (principal investigator) must report in the prescribed format to the NWU-IRERC via HRREC:
 - annually (or as otherwise requested) on the progress of the project, and upon completion of the project
 - without any delay in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project.
 - Annually a number of projects may be randomly selected for an external audit.
- The approval applies strictly to the protocol as stipulated in the application form. Would any changes to the protocol be deemed necessary during the course of the project, the project leader must apply for approval of these changes at the HRREC. Would there be deviation from the project protocol without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.
- The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date, a new application must be made to the NWU-IRERC via HRREC and new approval received before or on the expiry date.
- In the interest of ethical responsibility the NWU-IRERC and HRREC retains the right to:
 - request access to any information or data at any time during the course or after completion of the project;
 - to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process.
 - withdraw or postpone approval if:
 - any unethical principles or practices of the project are revealed or suspected,
 - it becomes apparent that any relevant information was withheld from the HRREC or that information has been false or misrepresented,
 - the required annual report and reporting of adverse events was not done timely and accurately,
 - new institutional rules, national legislation or international conventions deem it necessary.
- HRREC can be contacted for further information via Estle.Emtsoch@nwu.ac.za or 018 280 2873.

The IRERC would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the IRERC or HRREC for any further enquiries or requests for assistance.

Yours sincerely

Prof LA Du Plessis
Digitally signed by
Prof LA Du Plessis
Date: 2017.06.08
15:17:28 +02'00'

Prof Linda du Plessis
Chair NWU Institutional Research Ethics Regulatory Committee (IRERC)

Management within the Public Service

You are invited to participate in research on management within the public service.

I am a registered PhD student (Doctor of Philosophy in Business Management) at the School of Business and Governance in the Faculty of Commerce and Administration at the Mafikeng Campus of North-West University, South Africa.

For more information about the North-West University, please visit the following link: <http://commerce.nwu.ac.za/business-school>

The aim of the study is to identify the Critical Success Factors for successful management in the public service of South Africa in comparison to similar management systems in Canada and France.

Your input into the study is very important as it will provide me with current data from the public service in your respective country. Your assistance with the research is indispensable to ensure that appropriate recommendations are made to the relevant stakeholders. The information will be treated with the appropriate confidentiality and ethical considerations as stipulated by the university.

Please complete the Biographical information and the 25-point questionnaire by selecting the most suitable option. It should take approximately 10 minutes to complete the questionnaire.

After the study has been concluded, information will be made available upon request.

Email me at marieke@psresearch.co.za for more information.

Thank you for your contribution.

Kind regards,
Marieke van Zyl
+27844919911
marieke@psresearch.co.za

Biographical information

Please complete the Biographical information. Mark only one option per number.

**Required*

1. Country of work*

Canada ☐

France ☐

South Africa ☐

2. Department within public service*

Health ☐

Higher Education ☐

Transport ☐

3. Job level*

Top executive ☐

Executive ☐

Middle management ☐

Administration ☐

4. Main responsibility in public service*

Governance ☐

Finance ☐

People management ☐

Other (please specify): ☐

5. Main responsibility in public service: If OTHER was selected in previous answer, please specify

6. Years in current position*

< 1 year ☐

2 – 5 years ☐

6 – 10 years ☐

> 10 years ☐

7. Total years in public service*

< 10 years ☐

10 – 20 years ☐

20 – 30 years ☐

> 30 years ☐

8. Highest qualification obtained*

PhD equivalent ☐

Master's degree equivalent ☐

Bachelor's degree equivalent ☐

Other (please specify): ☐

9. Highest qualification obtained: If OTHER was selected in previous answer, please specify

Management within the public service: 25-point questionnaire

Select the most suitable option for each of the following statements. Mark only one option per statement.

"Workplace" refers to your day to day work environment e.g. Department or Unit within the Public Service.

*Required

1. International corporate governance standards are applied in my workplace*

Strongly agree

1	2	3	4
---	---	---	---

 Strongly disagree

2. Effective people management is the cornerstone of success in my workplace*

Strongly agree

1	2	3	4
---	---	---	---

 Strongly disagree

3. The last audit of my public service department was a clear reflection of the commitment of every team member*

Strongly agree

1	2	3	4
---	---	---	---

 Strongly disagree

4. Governance in my workplace focuses on strategic goals*

Strongly agree

1	2	3	4
---	---	---	---

 Strongly disagree

5. Diversity management is exercised at a high level in my workplace*

Strongly agree

1	2	3	4
---	---	---	---

 Strongly disagree

6. Systems to support effective financial management in my workplace are in place*

Strongly agree

1	2	3	4
---	---	---	---

 Strongly disagree

7. My workplace adheres to international accounting standards*

Strongly agree

1	2	3	4
---	---	---	---

 Strongly disagree

8. The skills levels of employees in my workplace meet the requirements of a modern public service*

Strongly agree

1	2	3	4
---	---	---	---

 Strongly disagree

9. Clean audits in my workplace are a procedural requirement*

Strongly agree

1	2	3	4
---	---	---	---

 Strongly disagree

10. Changing skills requirements to accommodate future development are recognised*

Strongly agree

1	2	3	4
---	---	---	---

 Strongly disagree

11. A clean audit is an automatic requirement for management success*

1	2	3	4
---	---	---	---

Strongly agree

--	--	--	--

 Strongly disagree

12. The financial management system in my workplace is effective in combating corruption*

1	2	3	4
<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>

 Strongly disagree

13. Transparency is embedded in the financial management system of my workplace*

1	2	3	4
<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>

 Strongly disagree

14. Public service financial management requires special understanding of budget constraints*

1	2	3	4
<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>

 Strongly disagree

15. Corporate governance in my workplace is visibly promoted*

1	2	3	4
<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>

 Strongly disagree

16. My workplace is fully 'au fait' with the requirements of financial management*

1	2	3	4
<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>

 Strongly disagree

17. In my workplace sufficient provision is made for leadership succession*

1	2	3	4
<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>

 Strongly disagree

18. Employees are afforded the opportunity to display their decision-making skills*

1	2	3	4
<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>

 Strongly disagree

19. Transparency is a value that should be lived in the real world*

1	2	3	4
<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>

 Strongly disagree

20. Financial management principles are accurately applied in my workplace*

1	2	3	4
<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>

 Strongly disagree

21. Effective time management is employed in my workplace*

1	2	3	4
<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>

 Strongly disagree

22. Financial management standards in my workplace are clearly demarcated*

1	2	3	4
<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>

 Strongly disagree

23. Training and development of employees in my workplace are in line with future requirements*

1	2	3	4
<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>

 Strongly disagree

24. The strategic goals of my workplace can be achieved if effective governance is practised*

1	2	3	4
<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>	<input style="width: 20px; height: 20px;" type="checkbox"/>

 Strongly disagree

25. Please rank the following in order of importance to indicate gaining a competitive advantage within the public service*:

*There can only be one ranking for each factor. Each factor therefore has a different rank.
Mark only one option per row.*

	Public Service	Financial management	Governance	People management	Skills management
Most important					
Very important					
Important					
Little important					
Least important					

Thank you for your contribution.

Management within the Public Service

You are invited to participate in an interview on management within the Public Service of Canada, with specific focus on Higher Education in your province or territory.

I am a registered PhD student (Doctor of Philosophy in Business Management) at the School of Business and Governance in the Faculty of Commerce and Administration at the Mafikeng Campus of North-West University, South Africa.

The aim of the interview is to obtain your unique perspective on successful management within the Public Service of Canada, with specific focus on Higher Education in your province or territory.

This qualitative component of the research, in addition to the obtained quantitative data, will assist the researcher to propose a conceptual framework for successful management in the Public Service of South Africa.

Please be advised that in the case of interviews via Skype or other similar platforms, it will be audiotaped and/or recorded by the researcher. Transcripts of the interviews will have to be verified by interviewees before it can be used for the study. Afterwards the data will be summarised according to themes. The information will be treated with the appropriate confidentiality and ethical considerations as stipulated by the university. Ethics number: NWU 00508 17 A9.

Your assistance with the research is indispensable to ensure that appropriate recommendations are made to the relevant stakeholders. I believe that the research will make an invaluable contribution to the research community and the bi-lateral relationship between the respective countries.

After the study has been concluded, information will be made available upon request. Thank you for your contribution.

Kind regards,

Marieke van Zyl

+27844919911

marieke@psresearch.co.za

Interviewee information

Please complete the Interviewee information.

1) NAME	1)
2) LINK WITH THE PUBLIC SERVICE	
2a) Title and Department/Institution	2a)
AND/OR	
2b) Other relation to the Public Service	2b)
AND/OR	
2c) Expertise in Management	2c)
AND/OR	
2d) Academic affiliation	2d)
3) LOCATION (Province or Territory)	3)

When inserting my name, I understand the following:

- I give my consent to participate in the research as mentioned above
- My participation in the research is voluntary

Management within the Public Service: Interview

Please answer all the questions. All questions refer to the Public Service of Canada, with specific focus on Higher Education in your province or territory.

1. Please tell me about **your experience** in/with the Public Service.
2. Given your experience, how would you describe **successful management** within the Public Service?
3. Do you consider your Public Service as **managed successfully**?
4. In your opinion, what are the **most suitable indicators** for measuring successful management within the Public Service?
5. How is **being successful** (in terms of management) **measured** in your Public Service?
6. What **factors** do you consider play a key role in influencing successful management within the Public Service? Please explain.
7. Of the factors that you have identified, which are the **most and least significant** in terms of influencing successful management within the Public Service. Please explain.
8. How would you rank these factors in **order of importance**?
9. If the following factors
 - *public service*
 - *financial management*
 - *governance*
 - *people management*
 - *skills management*

were to be identified as key factors that indicate **gaining a competitive advantage** in the Public Service

- a) Would you agree?

Yes	No
-----	----

- b) If so, how would you **rank** these factors in terms of importance?

There can only be one ranking for each factor. Each factor therefore has a different rank.

Factors	Ranking
Public service	
Financial management	
Governance	
People management	
Skills management	

10. Based on your experience, what **strategy** would you propose for **improving management** within the Public Service?
11. Please provide **any additional information** or considerations on how best **to improve management** within the Public Service.
12. Why do you think the Public Service respondents globally were **reluctant to participate** in this research?

DECLARATION BY LANGUAGE PRACTITIONER

I, Yvonne Smuts, hereby declare that I have been appointed by Marieke van Zyl (“the candidate”) to attend to the linguistic aspects of the thesis that is hereby submitted in fulfilment of the requirements for a Ph.D. degree in Business Management from the North-West University.

To the best of my knowledge, all suggestions and recommendations made by me in this regard have been attended to by the candidate.

Title of thesis: *A Management Framework for the Public Service of South Africa: Lessons from Canada*

Date: 18 December 2020



(Ms) Y Smuts

BA (Languages) (UP)

HED (cum laude) (UP)

SATI Accredited Member (No. 1002242)

Member of Prolingua