

**A MODEL TO FOSTER THE USE OF RECORDS FOR EVIDENCE-BASED DECISION-
MAKING BY SENIOR MANAGERS IN WESTERN CAPE GOVERNMENTAL BODIES,
SOUTH AFRICA.**

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at the University of the Western Cape,

Bellville, South Africa

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DECLARATION

I **Nikiwe Gloria Momoti**, declare that, *A model to foster the use of records for evidence-based decision-making by senior managers in Western Cape governmental bodies, South Africa*, is my own work, that it has not been submitted before for any degree or examination to any other university, and that all the sources I have used have been indicated and acknowledged as complete references.

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Date: 29 March 2021



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Dr. Lizette King

29 March 2020

DEDICATION

I dedicate this study to my children, Viwe, Sami, Loy and Mukoma. I hand over the baton to you, reach out for your dreams!



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This study is a fulfilment of my dream of making a significant contribution to Information Management. On this journey towards realizing it, I have met several people who have prompted, supported and believed in me.

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“It takes a dream to get started, desire to keep going, and determination to finish” Eddie Harris Jr

ABSTRACT

South Africa has placed emphasis on evidence-based decision-making for justifying service delivery improvement decisions. Evidence-based decision-making entails decisions made by referring to verifiable facts and figures available from a variety of sources of evidence such as organizational records. Records are created or received during the conduct of business and contain evidence of organizational activities. Their use as sources of evidence is continuous. Most records management scholars hypothesize that the use of records as sources of evidence for decision-making contributes to improved service delivery. In the same breath, some scholars lament their minimal use as sources of evidence for decision-making in the South African public sector due to poor records management. This descriptive, positivist quantitative study used a cross-sectional survey to determine the extent to which records as sources of evidence were used for evidence-based decision-making by senior managers in Western Cape governmental bodies, South Africa. The Continuum Model of Evidence Use and the Records Continuum Model framed the study. The constructs of the former demonstrate that the use of evidence by decision makers varies and depends on knowledge of what counts as evidence, access to evidence, its use by decision makers as well as its impact on practice. The Records Continuum, on the other hand, supports the continuous use of records as sources of evidence. The objectives of the study were to determine senior managers' knowledge of evidence-based decision-making; assess whether senior managers used evidence to decide on service delivery programmes; determine where the evidence was sought; evaluate the extent to which senior managers used records for evidence-based decision-making; and determine service delivery improvement due to use of records as sources of evidence for evidence-based decision-making. A literature review, to find out what the views and findings of other scholars are, revealed a vast pool of the care and management of records but a paucity of literature on the use of records as sources of evidence for decision-making. This study, therefore, contributes to the growing body of literature on the use of records as sources of evidence. A web-based questionnaire augmented by a telephonic survey were used to collect data from a stratified random sample of 163 senior managers from 31 Western Cape governmental bodies. Descriptive analysis was used to analyse the data. The study revealed that senior managers acknowledged the importance of using records for evidence-based decision-making and always used them as sources of evidence to decide on service delivery programs. The study revealed 83 such service delivery improvement programs. The

study additionally revealed that while evidence-based decision-making requires the use of the best available evidence from multiple sources, senior managers from Western Cape governmental bodies preferred to use some sources of evidence than others. To promote the use of records for evidence-based decision making, the study proposed a model to foster the use of records as sources of evidence in decision making. The study recommends the inclusion of evidence-based decision-making in Senior Management Service training to raise awareness to the practice, improve its knowledge, understanding and implementation across all spheres of government.

Keywords: Continuum Model of Evidence; Evidence-based decision-making; Records Continuum Model Western Cape government; records management; records use; senior managers.



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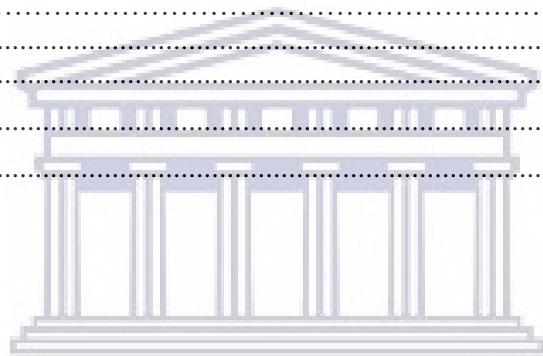
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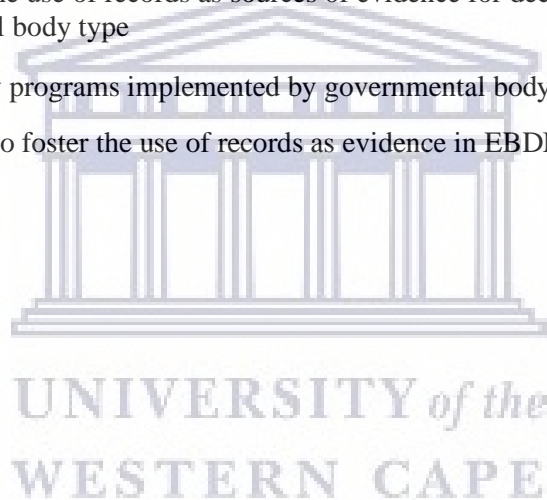


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LIST OF ABBREVIATIONS AND ACRONYMS

ANCOVA	Analysis of co-variance
ANOVA	Analysis of variance
DCAS	Department of Cultural Affairs and Sport
DPME	Department of Planning, Monitoring and Evaluation
EBDM	Evidence-based decision-making
EBMgt	Evidence-based management
ECD	Early Childhood Development
ECM	Enterprise Content Management System
HSSREC	Humanities and Social Sciences Research Ethics Committee
ICT	Information and Communication Technology
KM	Knowledge Management
LCM	Lifecycle Model
MPAT	Management Performance Assessment Tool
MTSF	Medium Term Strategic Framework
NDP	National Development Plan
NEPF	National Evaluation Policy Framework
NEPs	National Evaluation Plans
NSG	National School of Government
PARS	Provincial Archives and Records Service
PGDs	Provincial Growth and Development Strategies
PSGs	Provincial Strategic Goals
RCM	Records Continuum Model
RMF	Records Management Forum
SMS	Senior Management Service
SPSS	Statistical Package for the Social Sciences
SRS	Stratified Random Sampling
UWC	University of the Western Cape
WCARS	Western Cape Archives and Records Service
Western Cape governmental bodies	Western Cape governmental bodies
WCP	Western Cape Province



CHAPTER ONE

INTRODUCTION AND BACKGROUND

1.1 Introduction

Records are considered as important assets for decision-making, transparency and accountability, due to their primary and secondary value (Khumalo 2018, 1). Schellenberg (1965) explains that the primary value of records is to accomplish the purposes which they were created for by the office of origin. The purposes include administrative, accountability, fiscal, legal, and operational. The secondary value on the other hand exists long after they cease to be of current use in the office of origin and are kept in an archive for informational, historical and evidential use. The primary value of records as sources of evidence is the focus of this study.

Evidence-based decision-making explained in 1.2.1 and Chapter Two was introduced in the South African government in 2005 for government to make informed decisions and achieve better outcomes to improve service delivery (Boulle, et al. 2015). The Australian Bureau of Statistics (2010) explains that evidence-based decision-making (EBDM) requires the use of the best available evidence from research and other sources for well-informed decisions. As explained at the beginning of this chapter, records are a source of evidence. This descriptive quantitative study was undertaken to determine the extent to which records were used as sources of evidence for evidence-based decision-making by senior managers in Western Cape governmental bodies, South Africa. In addition, the study proposed a model to foster the use of records as sources of evidence for EBDM. In order for their value to be realized, records must be used. Records bear evidence of organisations' business activities and are considered the most reliable source of evidence (Cordis & Milyo 2013, 28; Momoti & King 2019, 80; Ngoepe & Ngulube 2013, 1). For instance, Cordis and Milyo (2013) discovered that evidence from administrative records in prosecuting corrupt public officials in the United States of America proved to be more reliable than evidence from news articles, journal surveys and research articles. The authors found that this was because the administrative records were from offices of origin and could be cross-referenced down to case level and geographic regions. Therefore, they were found to be reliable and authentic. Due to their

reliability, records are essential for strategic decisions, planning, operations, and assessment of results as well as projecting for the future (Iwhiwhu 2005, 345). Some scholars such as MacNeil (2001), however, find that authenticity and reliability of records is an archaic way of evaluating their evidential value, which undermines other forms of evidence such as oral history. The author argues that the value of written records extends beyond their status of providing reliable and authentic evidence and suggests new ways of evaluating their trustworthiness such as their relationship with the world they are created in. In the same light, Ngoepe (2020) posits that oral evidence is a source of evidence and when used with written records, presents the whole truth since both are authentic records and complement each other in providing evidence. In summation, Pearce-Moses (2005, 327) states that “any item, no matter how ephemeral it was intended to be, may serve as a record if it is later used as evidence of the thing to which it refers”.

It can be noted from the discussion in the previous paragraphs that the use of records for primary or secondary purposes is vital. However, scholars such as Marutha (2011); Marutha (2016); Ngoepe (2012); and Schellnack-Kelly (2013), bemoan the dearth of the usage of records due to poor records management processes which impact negatively on organisations. Ngoepe (2012), for instance, discovered that due to poor records management in some governmental bodies, records were not accessible for audit purposes which impacted negatively on audit outcomes. Marutha (2016, 1) found that because of missing files in a public hospital, inadequate medical information negatively impacted decisions on the proper treatment of patients. Good records management practices, however, facilitate timeous accessibility of records, thus, improving their use for service delivery improvement and accountability (Luthuli 2017, 1; Harris 1997, 13). In addition, records management assists in protecting records from loss, damage, alteration, premature and unauthorized destruction (Yeo 2011, 12). Records management processes include developing policies and procedures to guide the creation, management, storage, access, retention, disposal, reliability and authenticity of records. Some scholars such as Duranti (2018) and Mosweu (2018), however, found that reliability and authenticity of digital records as sources of evidence are compromised due to misinformation, disinformation, third party trust, and technological ability to prove authenticity. The study that was conducted by Mosweu (2018, 17) in a

Botswana government department exposed that guidelines and checklists for auditors to authenticate digital records were lacking. The author recommended that the office of the Auditor General should develop such guidelines. Appropriate records management models, legislation to guide digital records management and upskilling of records management staff in appropriate technologies could contribute in addressing the authenticity and reliability of digital records and contribute to effective records management (Marutha 2016; Mosweu 2018).

The Continuum Model of Evidence Use and Records Continuum Model (RCM), discussed in section 1.3 of this chapter and Chapter Three, were used as theoretical frameworks for this study. The former posits that evidence use by decision-makers moves from conceptual to instrumental stages. The conceptual stages are awareness, knowledge and understanding of evidence by the decision-makers, while the instrumental stages are decision makers' attitudes, perceptions, ideas as well as the impact of evidence on practice and policy changes. The RCM's support for the continuous use of records as evidence for business activities motivated its choice. This means that the evidential use of records has no life cycle, instead, continues for internal organizational use.

Hofstee (2006, 83) posits that an introduction explains what the thesis investigates, how and why. This chapter therefore provides the purpose, background and rationale of the study, the problem statement, research objectives, questions, and theoretical framework. In addition, the research design, methodology, limitations, delimitations, definition of key terms are discussed. An outline of the study is provided to demonstrate how the study was conducted. The chapter ends with a summary.

1.2 The background and rationale of the study

One of the key responsibilities of governments world-wide is to provide effective and efficient services to its residents. Such services are multiple and include but not limited to, provision of water, electricity, sanitation, health, education, recreation and housing (Tiravanhu, Olaleye & Bester 2017, 684). Senior managers in organisations, including government, see to that services are planned for and successfully delivered in a cost-effective manner (Boulding et al. 1994, 414). In support, Minnaar (2010, 41); Ngoepe (2008, 45) as well as Stair, Reynolds and Chesney (2012, 231) add that the key responsibility

of senior managers is decision-making. To make appropriate decisions, senior managers must have the right information. Uninformed decisions lead to over reliance on intuition, thumb-sucking and personal opinions, resulting in mistakes (Banks 2009,6). Additionally, evidence is needed to measure success and make decisions to either improve identified short comings or to discontinue some programs (Republic of South Africa 2014, 2). Decisions therefore should be justified by evidence. The Centre for Evidence-based Management (2019) explains that evidence is data, information and facts which supports or contradicts a claim. Evidence is found in a variety of sources (Hall & Jennings 2010, 137; Jennings & Hall 2012). Hall and Jennings (2010) identified and weighed the value attached to 19 sources of evidence used in state agencies in the United States of America. Barends, Rousseau and Briner (2014, 3), on the other hand, identified four sources of evidence which count in EBDM. The sources of evidence are scientific; organizational; experiential; and stakeholder evidence. A detailed discussion on these evidence sources is presented in Chapter Two. The following sub-section expands more on the use of evidence for decision-making.

1.2.1 Evidence-based decision-making

Most literature claims that there is an increasing emphasis on the importance of EBDM by governments (Australian Bureau of Statistics 2010, 2; Hall & Jennings 2010, 138). However, there seems to be different schools of thought concerning its history. Baba and HakemZadeh (2012, 833) for instance, claim that EBDM was pioneered by medical clinicians in the early 1990s. While other scholars such as Adolphus (2019, 1) as well as Buss and Shillabeer (2011, 6) agree that EBDM in public administration emerged from evidence-based medicine but posit that it was over thirty years ago. Another school of thought by Sutcliffe and Court (2005, 1) is that EBDM was implemented in Ancient Greece when Aristotle asserted that different kinds of knowledge should inform rulemaking. Banks (2009, 4) on the other hand traces the use of evidence-based practices in public administration to the fourteenth century, but also asserts that in Australia, EBDM became evident in the 1980s. Maxim et al. (2015, 10) claim that in the United Kingdom, EBDM started in the 1980s when the government was faced with financial challenges, and started to emphasize the need for policies and best practices supported by evidence and empirically sound research. However, it was in 1997 when EBDM rose to prominence, when the Blair

government resuscitated and popularized evidence-based practices with the Labour Party' election manifesto, "what counts is what works" and their focus on modernizing government (Nutley, Davies & Walter 2003, 29; Sutcliffe & Court 2005, iii). In the United States, Kay (2011, 236) claims that EBDM existed as knowledge utilization in the 1960s and 1970s but became popular in 2008. EBDM is accredited to one of the founding fathers of social psychology, Kurt Lewin, who in the 1940's observed a gap between research and practice, thus developed a slogan "No action without research, no research without action", to demonstrate the importance of research evidence in practical situations (Latham 2007, 1027). The various schools of thought on the origin of EBDM in public administration imply that it may not originate from evidence-based medicine, instead, it uses the philosophy of evidence-based medicine and examples of success from the health care profession (Baba & HakemZadeh 2012, 833). Moreover, it is evident from the literature that EBDM in public administration is not recent, but its recognition and use has increased over the years. For instance, Reay, Berta and Kazman Kohn (2009, 10) in a literature review of evidence-management publications, discovered that the earliest article was published in 1948.

EBDM is a process informed by experiential, contextual and research evidence necessary for decision-making (Kavanagh & Levinson 2016; Maxim et al. 2015, 4). Additionally, EBDM improves public management and policy making by grounding decision-making in evidence, rather than on anecdotes, opinions and unsubstantiated belief (Buss & Shillabeer 2011, 3; Kingsbury et al. 2011, 171). EBDM, however, is a new notion in public administration and has raised contentions on what constitutes evidence, what kinds of evidence matters, as well as its reliability (Buss & Shillabeer 2011, 3; HakemZadeh 2015, 21). As explained in section 1.2 of this chapter, some scholars such as Barends, Rousseau and Briner (2014, 3) as well as Wills et al. (2016, 8), consider scientific; organizational; experiential; and stakeholder evidence as four information sources which count as evidence and should be used as such. However, factors such as unreliability and unavailability hamper the use of evidence for decision-making (Jennings & Hall 2012, 249; Kingsbury et al. 2011, 171; Marutha 2016).

The use of evidence for decision-making in public administration is believed to originate from the health sciences in the 1990s (Barends et al. 2017, 1). However, some scholars, such as, Banks (2009, 4);

Sutcliffe and Court (2005, 1) dispute that claim by arguing that EBDM in public administration was introduced as early as the fourteenth century but was resuscitated in the 1990s in Britain. Nonetheless, Maxim et al. (2015, 6) built their EBDM framework from evidence-based medicine as discussed in Chapter Three. The authors explain that EBDM involves making decisions through evaluating, selecting and using the best available evidence from various sources for a favourable outcome. However, decision makers are known to use information sources based on familiarity of the sources and their accessibility rather than the quality of evidence they have (O'Reilly 1982, 756). This study discovered the same, as discussed in Chapter Six. Hall and Jennings (2010, 146) note that such variations in the use of evidence sources have implications to EBDM implementation and shows the different levels of understanding of its practice by decision-makers. Nonetheless, information sources which count as evidence for EBDM have been mentioned in the preceding paragraph. Organizational records, which are the subject of this study, are part of organizational evidence and are discussed in the following sub-section for context.

1.2.2 Records as sources of evidence

Public sector information has been recognised to have various purposes such as contributing to good governance and decision-making processes (Cerrillo-i-Martinez 2012, 771; Schellnack-Kelly 2013, 5). In support, Stair, Reynolds and Chesney (2012, 37) stress that the value of information is directly linked to how it helps decision-makers achieve organizational goals. Some of this information is in organizational records (Harris 1997,13; Zussman 2003,2). However, Harris (1997) explains that some information sources that are used to support decision-making are not considered as records, for example journals in a library. Records are sources of information which contain evidence of organizational activities (International Records Management Trust 2015). For instance, correspondence between organisations is evidence of formal communication between them, while minutes of meetings bear evidence of decisions taken (Harris 1997). In summation, Cox (2000, 127), Momoti (2017, 2) and Ngoepe (2008, 45) posit that records are sources of evidence used for decision-making and good governance. The evidential nature of records, however, may be misunderstood by other professions outside the archival community as argued by Yeo (2007, 318). For example, to information managers, records are viewed as information sources much like books and journals while the public may consider

records as documents or manuscripts. In the legal profession a bloodied knife and a dead body with stab wounds found at a murder scene can be considered evidence that a murder took place. A blood-stained letter at the murder scene would form part of the evidence and not necessarily its contents. In the archival community, however, records are defined in terms of their function rather than their characteristics (Pearce-Moses 2005, 327). Records are not evidence *per se*, instead, are persistent representation of activities which happened in an organisation and memorialised on a physical carrier or medium. Therefore, evidence of those activities can be obtained from records and used (Yeo 2007, 320, 337). Explaining this notion further, Yeo (2011, 9) reveals that persistence representation means that records have the capacity to be used beyond the immediate circumstances which led to their creation. Therefore, the use of evidence they bear is continuous.

In the quest for good governance and service delivery improvement, there has been an increase in employing EBDM processes by governments world-wide, including South Africa (Kavanagh & Levinson 2016, 17). The reason is that evidence is needed to measure successes and make decisions to improve where shortcomings have been identified or to discontinue some programs (Republic of South Africa 2014, 2). For example, statistical evidence from performance reports or correspondence with stakeholders may be needed to support decisions about implementing and funding projects or decreasing or increasing staff to render services in a certain area. Given this description, the use of records for good governance and evidence-based decision-making in the public sector is imperative. However, most records management and evidence practice researchers lament their minimal use for decision-making (Asogwa 2012, 199; Coote, Allan & Woodhead 2004, 17; David 2017, 9; Makhura 2005, 133). Be as it may, the use of records as evidence in decision-making contributes to improved service delivery (Marutha 2019, 1). This research was an attempt to determine whether this was the case in Western Cape governmental bodies. To provide more insight and context, the following sub-section provides an overview of the South African government as well as the status of records management in Western Cape governmental bodies.

1.2.3 The South African government in brief

Government in South Africa is divided into three spheres, national, provincial, and local. All the spheres have legislative and executive authority (Republic of South Africa 2019b). By 2020, South Africa had nine (9) provinces; two hundred and seventy-eight (278) municipalities; as well as one hundred and sixty-nine (169) public entities. The municipalities comprise of eight (8) metropolitan, forty-four (44) district and two hundred and twenty-six (226) local municipalities (Republic of South Africa 2020b). Table 1.1 presents a breakdown of South African municipalities.

Table 1.1: Breakdown of South African municipalities

Composition of municipalities in South Africa			
Metropolitan municipalities	District municipalities	Local municipalities	Total municipalities
8	44	226	278

The nine (9) provinces are the Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Northern Cape, North-West and Western Cape. According to the Constitution (Republic of South Africa 1996), the provinces may have legislative and executive powers concurrent with the national sphere. Provinces and municipalities are constitutionally responsible for implementing many of the key objectives of government (Republic of South Africa 2015, 22). In other words, provinces are the coal face of service delivery. The South African government, thus, seems to be well structured to provide services to the people. Hendrich (2017,75) posits that it is inconceivable for any government to be considered complete without a functional archives and records service. The following sub-sections provide insight into the archives and records service in South Africa for context.

1.2.4 The South African public archival system

In the South African government, the responsibility of managing public records lies with National and Provincial archives and records services as well as the offices where the records were created (Harris 1997, 6). The history of archives and records services in South Africa is outside the scope of this study. However, the researcher draws on history to provide context to the present time. Archives and records

services along with other aspects of South African life were affected by the complex history of colonialism and apartheid which ignited discrimination (Harris 1997; Hendrich 2017, 75; Ngoepe 2019, 152; South African History Online 2020). Colonialism began with the arrival and settlement of the Europeans, notably, the Dutch East India Company or Vereenigde Oost-Indische Compagnie in 1652 and the British in 1795 and 1806 (South African History Online 2020). The effects of colonialism are still evident in the present archival system as noted by Harris (1997) that archives and records management practices in South Africa are influenced largely by the Dutch, for instance, Muller, Feith and Fruin (1940) and the British Sir Hilary Jenkinson (1922). Ngoepe (2019, 152) adds that most of the archival records in public archives were generated after the arrival of the Europeans. The assertion by Harris (1997) and Ngoepe (2019) is evident in Heindrick's (2017) detailed account of record-keeping during the colonial and apartheid periods. In addition to the effect colonialism had on archives and records management, apartheid introduced in South Africa in 1948 called for separate development of the racial groups (Encyclopaedia Britannica 2009). Under apartheid, the State National Service oversaw archives and records management in the then Cape, Transvaal, Orange Free State and Natal provinces (Harris 1997). Figure 1.1 presents the provinces of South Africa before and during the apartheid period.

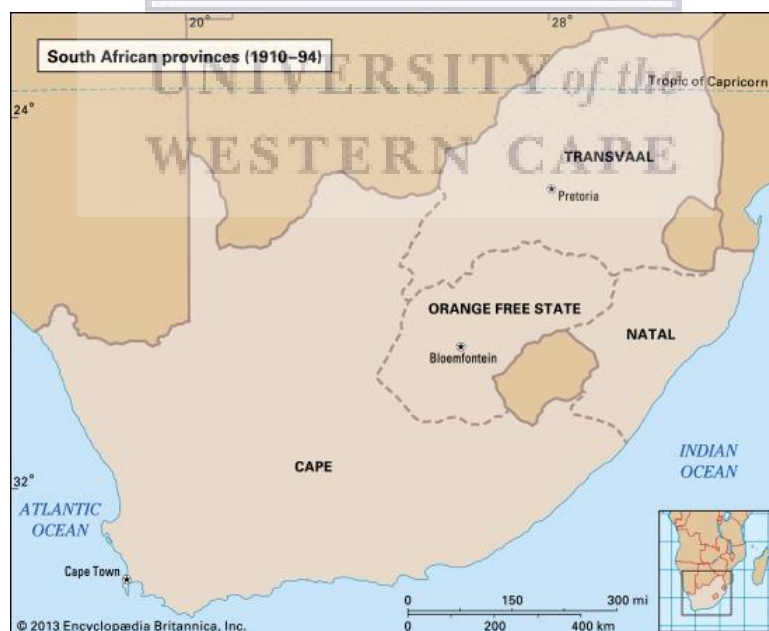


Figure 1.1: Map of South African provinces before and during the apartheid period (Encyclopaedia Britannica 2013)

The ten (10) homelands which were established under apartheid, established archives services as explained by Harris (1997). Homelands were areas where the majority of the Black African population was moved to prevent them from living in the urban areas of South Africa. The homelands were, Bophuthatswana, Ciskei, Gazankulu, KaNgwane, KwaNdebele, KwaZulu, Lebowa, QwaQwa, Transkei and Venda. (South African History Online 2019). Figure 1.2 shows the homelands of South Africa:

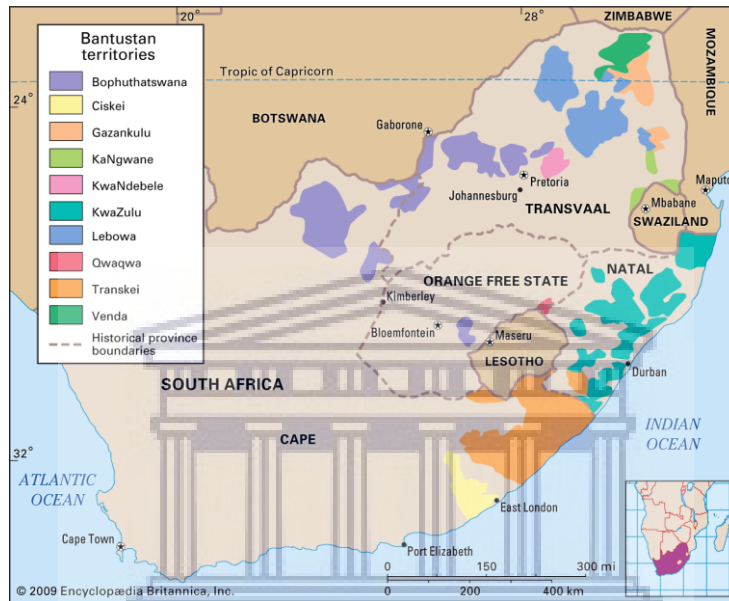


Figure 1.2: Map of the homelands of South Africa (Encyclopaedia Britannica 2009)

A new South African archival system was ushered in the early 1990s when national dialogues and consultative processes towards a democratic South Africa, gave an opportunity to practitioners and stakeholders to re-imagine archives and records management (Archival Platform 2014, 27; Harris 1997, 2; Ngoepe 2019, 152). Since the dawn of democracy in 1994, archives other than national archives are a functional area of exclusive provincial legislative competence (Republic of South Africa 1996). In other words, the nine (9) provinces have a constitutional mandate to manage archives and records management services respectively. Figure 1.3 presents the nine (9) provinces of post-apartheid South Africa.

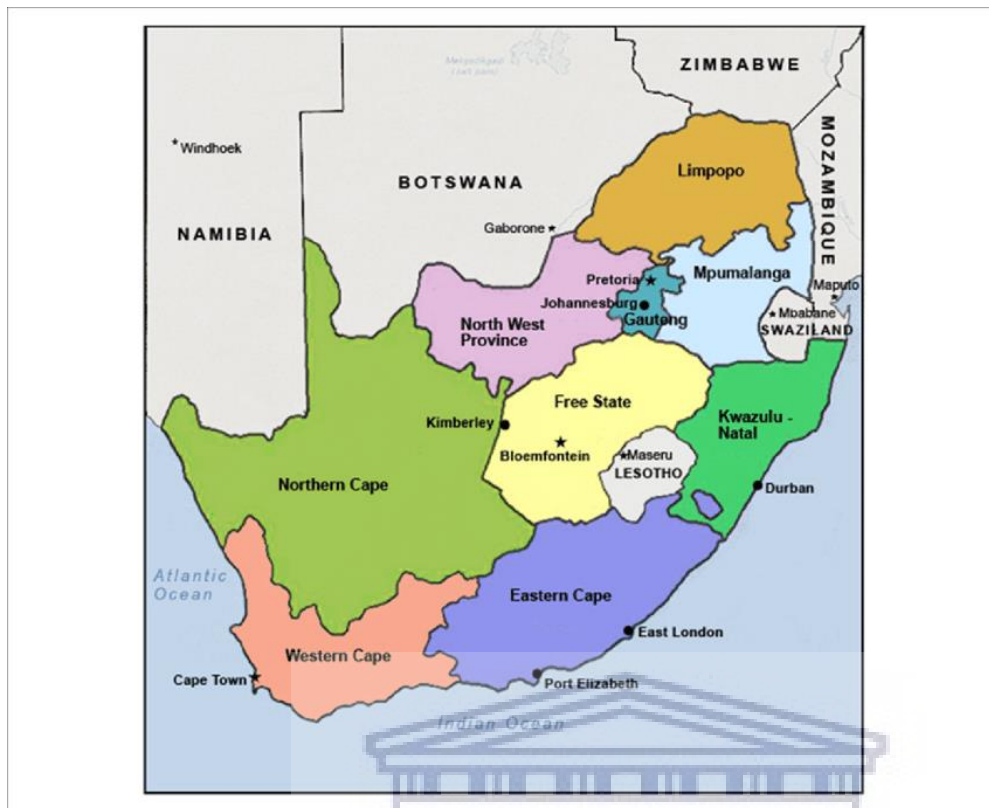


Figure 1.3: Map of the nine provinces of post-apartheid South Africa (South African History Online 2020)

As mentioned in section 1.1. of this chapter, records have primary and secondary value. The latter value is dealt with in archives management while the former is part of records management. Since this study is concerned with the primary value of records, the following section provides insight into records management in the Western Cape province for context.

1.2.5 Records management in Western Cape governmental bodies, an overview

The Western Cape Province (WCP) is one of the nine provinces and like the others, it works in cooperation with national government to create laws and provide services to a population of 6.3 million people (Western Cape Government 2020). In other words, provincial and local government are at the coal face of service delivery. The Western Cape Department of the Premier oversees good governance and integrated service delivery in all the Western Cape governmental bodies through partnerships, innovation and people excellence (Western Cape Government 2020). By 2020, governmental bodies in the Western Cape were composed of thirteen (13) provincial departments, thirty (30) municipalities and

eleven (11) public entities (Republic of South Africa 2019c). Archives and records management matters of the governmental bodies were guided and monitored by the Department of Cultural Affairs and Sport (DCAS) through the Western Cape Archives and Records Service. Comprehensive records management in governmental bodies is important for good governance and accountability (Republic of South Africa 2018, 70). In addition, proper records management provides access to records necessary to support the efficient continuation of an organization's activities for reliable recorded evidence, for internal use and regulatory compliance (Pearce-Moses 2005, 334). Moreover, Meadke (1981, 19) as well as Dawha and Biu (1993) explain that records management provides for systematic control of recorded information that is required for an organization's business operations. It is therefore, vital for organizations to have well capacitated records management units to facilitate the relevant processes of managing records (Marutha 2016, 300; Ngoepe 2012, 208).



The DCAS 2018/19 annual report (Republic of South Africa 2019a, 34) shows that records management tools and processes are in place to exercise control and guide Western Cape governmental bodies in creating, managing, and accessing authentic, complete, and reliable evidence. Records management in Western Cape governmental bodies is given overall direction through legislation such as the Provincial Archives and Records Service of the Western Cape Act No. 3, 2005 (Province of the Western Cape 2005) and policy documentation such as the Records Management Policy of Western Cape governmental bodies (Republic of South Africa 2017) as explained in the following sub-sections.

1.2.5.1 The Provincial Archives and Records Service (PARS) Act 2005 (Act No 3, 2005)

The PARS was enacted to provide for a Provincial Archives and Records Service for the Western Cape Province, the proper management and care of public records as well as preservation and use of a provincial archival heritage, and other matters connected therewith (Province of the Western Cape, 2005). Compliance to the Act by governmental bodies is monitored through regular records management audits. For example, 31 records management audits were reported in the 2018/19 annual report (Republic of South Africa 2019a, 75). This study was conducted during the period of the report.

1.2.5.2 Records Managers and the Records Management Forum

Sections 9 (3) (a) and (b) of the PARS requires that “the head of a governmental body must, subject to any law governing the employment of personnel of the governmental body concerned and such requirements as may be prescribed, appoint an official of the body to be the records manager of the body”. Records Managers in Western Cape governmental bodies are responsible for ensuring that their respective organisations comply with the requirements of the Act. A Records Management Forum (RMF), composed of records managers, was established to develop and manage records management programs; provide a mandatory leadership and guidance in establishment, development and management of all records management programs; ensure that all records management practices comply with the requirements of the PARS; and to create a collaborative platform for records managers of governmental bodies to address strategic records management issues (Republic of South Africa 2011b, 1). The terms of reference of the RMF are updated by members when the need arises. The RMF meets quarterly to discuss and engage in activities to improve records management processes and procedures in Western Cape governmental bodies, introduce new changes and developments in the profession.

1.2.5.3 Records Management Policy, Digitization Policy, and Compliance Assessment Tool

An over-arching records management policy of Western Cape governmental bodies, approved in 2017, provides direction to Western Cape governmental bodies on the management of records for good governance, accountability as well as corporate social memory (Republic of South Africa 2017b). The policy upholds the Records Continuum Model (RCM), which is used to frame this study. As required by the provincial records management policy, Western Cape governmental bodies in turn have organizational records management policies aligned to the provincial one. In addition, a digitisation policy was approved in the same year to provide digitisation guidelines and standards to Western Cape governmental bodies to ensure uniformity in the management of digital records (Republic of South Africa 2017a). As mentioned in 1.2.5.1, the WCARS conducts regular records management audits to assess compliance to the PARS and policies by governmental bodies. During the records management audit, records storage areas as well as records management tools, such as file plans, policies and registry

procedures, are inspected. A records management compliance assessment tool is used during the records audits to rate the level of compliance and the audit findings are communicated to heads of governmental bodies to remedy non-compliance where necessary.

1.2.5.4 Records management training

Katuu (2015, 101) notes that apart from formal education in records and archives management, other training programs, such as, on-the-job introductory and post-appointment continuing education and training are offered by archival institutions in Africa. Accordingly, the WCARS provides training to records management staff of Western Cape governmental bodies. For the 2018/19 financial year, the DCAS planned to provide educational training courses to records managers and registry staff to equip them with the necessary knowledge and skills to provide a professional service. A total of 262 records management staff were thus trained (DCAS 2019, 75). The records management staff must provide similar training to other staff in their respective organisations. Scholars such as Momoti (2017, 69); Ngoepe (2008, 139); Osunrinde and Tihamiyu (2017, 8), as well as Wright (2013, 18), promote records management training for all staff in an organisation to inculcate an information culture as well as improve management and use of records. Pember (1998, 63) adds that informed creators and users of records are central to effective records management.

From the preceding discussions, it can be seen that records management tools and processes are in place to guide Western Cape governmental bodies in creating, managing, and accessing authentic, complete, and reliable evidence. Records as sources of evidence in Western Cape governmental bodies should therefore be available, accessed and used for decision-making, however, no study was found which investigated the extent of their use to support service delivery decisions. To justify, guide the research and provide a better understanding of the subject, a theoretical framework was sought as discussed in the following section.

1.3 The theoretical framework

A theoretical framework is described as a roadmap to guide the direction of the research and serves as a foundation upon which a research is constructed (Adom, Hussein & Agyem 2018, 438). Explaining

further, Ngulube, Mathipa, and Gumbo (2015) highlight that a theoretical framework guides the design of questions and frames a study in so much that it is understandable to readers. Quantitative studies are guided by theoretical frameworks as opposed to conceptual frameworks which are used in qualitative studies (Ngulube, Mathipa & Gumbo 2015, 65). Due to the quantitative nature of this study, a theoretical framework, namely, the Continuum Model of Evidence Use augmented with the Records Continuum model were used as explained in the following sections.

1.3.1 Continuum Model of Evidence Use

The Continuum Model of Evidence Use is drawn from Nutley, Walter and Davies (2007), who posit that the use of evidence begins by knowing and being aware that the evidence exists; knowing and understanding what counts as evidence; and its access (conceptual stage). To some decision makers, however, the use of evidence refers to its actual application to decisions and successful implementation of a policy or service delivery program (instrumental stage). Use of evidence therefore may move from one stage to the next depending on the level of knowledge and its understanding by decision makers. This means that the use of evidence for decision-making is not once-off but a continuum of stages with knowledge and understanding being one of them. The model shows that knowledge and understanding of EBDM are crucial for its implementation, but differs from decision-maker to decision-maker. The constructs that guided this study were,

- Knowledge of EBDM
- Types of evidence use
- Access to evidence
- Service delivery improvement programs implemented due to use of evidence

A detailed explanation of the constructs is provided in Chapters Two and Three. Marutha (2016, 12), in his study, augmented a theoretical framework with the Records Continuum Model (RCM) which is an archival science model. The reason was that the RCM guides continuous records management processes throughout its lifespan. Records management and business activities complement each other because records contain evidence of business activities and/or transactions. The author adds that

consideration of the records continuum model cannot be undermined in records management matters. The Records Continuum Model (RCM), therefore, was also used to frame the study as explained in the following section.

1.3.2 Records Continuum Model

The RCM draws on concepts of the evidential nature of records (McKemmish 2001, 335) and the continuous use of records regardless of media or form for the purpose they were created for at any point (Franks 2013, 37). The RCM was developed in Australia in the 1990s by Frank Upward (Franks 2013, 37; Karabinos 2015, 9; McKemmish 2001, 334) and first made explicit by Jay Atherton in 1985 (Flynn 2001, 80; Gauld 2010, 25 and Upward 2000, 119). The RCM was found suitable because it upholds the evidential nature of records which is central in archival science (Acland 1992, 58; McKemmish 2001, 344). Additionally, it moves away from focusing on records as physical artefacts to considering records as sources of evidence and their continuous use for what they were created for, that is, evidence of business activities (Cox 2000, 157; Flynn 2001, 85).

The Western Cape governmental bodies have embraced RCM to create, manage and use records, as evident in the records management audit reports and approved Records Management Policy of Western Cape governmental bodies, 2017 (DCAS 2017). The records management policy uses the RCM as the preferred theoretical framework due to the advent of technology and various electronic records management systems used by governmental bodies. Some records management scholars, such as Flynn (2001, 80), consider the RCM to be applicable only to electronic records rather than those in physical paper-based form. Additionally, Ngoepe (2008, 11) observes that the RCM fails to consider that paper records continue to grow even in the electronic environment. Nevertheless, the RCM was considered as appropriate to guide the direction of the study due to its focus on the continuous use of records as evidence. The construct of the use of records as sources of evidence for evidence-based decision-making was found useful to frame this study. A detailed explanation is presented in Chapter Three. The combined constructs drawn from both models strengthened the foundation of the study as well as the proposed model discussed in Chapter Seven.

The previous sections laid a background, theoretical foundation, and motivation for the study. The following section explains the research problem or problem statement of the study.

1.4 Research problem

Records are created and used in organisations as evidence and to provide accountability for decisions (Coetzer 2012, 7). The use of records as evidence is thus an integral part of their existence. Senior managers are therefore supposed to consult and use information in records to make decisions. Moreover, EBDM, a South African government service delivery approach, is grounded on using evidence from multiple information sources to make decisions to improve service delivery. However, despite the importance of records as sources of evidence for decision-making, researchers such as Klareld (2017, 1), Marutha (2011, 27), Momoti (2017, 68) and Schellnack-Kelly (2013, 9, 147), have concluded that records are seldom used for decision-making by senior managers in the public sector. In most instances, poor records management has been identified as the key obstacle to accessing and using records (Ngoepe 2012, 1; Schellnack-Kelly 2013; Tiravanhu, Olaleye & Bester 2017, 683). Records management is a statutory obligation in Western Cape governmental bodies. As discussed in 1.2.5.1, records management practices seem to be in place. The researcher, however, found no systematic investigation to determine the extent to which records as evidence were used to support the decision-making process. Hofstee (2006, 85) advises that a research problem should be stated as a question to help the readers understand what exactly will be investigated and answered by the study. The research problem of this study was thus formulated as, to what extent were records as sources of evidence used by senior managers in Western Cape governmental bodies to support service delivery decisions?

1.5 Aim and objectives of the study

The aims of a study explain what the researcher seeks to achieve and contribute to knowledge, while research objectives are a series of statements that explain how the aim will be achieved (Marshall & Rossman 2006, 3; Oliver 2008, 88; Yan 2015, 28). The aims of the study to determine the extent to

which records were used for evidence-based decision-making by senior managers in Western Cape governmental bodies. The study, additionally, proposes a model to foster the use of records as sources of evidence in EBDM. The study objectives were thus to:

- 1.5.1 determine senior managers' knowledge of EBDM,
- 1.5.2 assess whether senior managers used evidence to decide on service delivery programs,
- 1.5.3 determine where the evidence was sought,
- 1.5.4 evaluate the extent to which senior managers used records as sources of evidence for EBDM and
- 1.5.5 determine service delivery improvement due to use of records as sources of evidence for EBDM.

Each research objective requires the use of one or more research question (Blaikie 2003). The research objectives were answered by asking questions as explained in the following section.

1.6 Research questions

Research questions are the central questions a study must address, and they guide how the research is conducted (Bryman 2016, 695; Leavy 2017, 92). In line with the Continuum Model of Evidence Use and the RCM, the following research questions and sub-questions were asked to address the problem statement and objectives:

- RQ1. to what extent do senior managers know about evidence-based decision-making?
- RQ2. to what extent have senior managers used evidence to decide on service delivery programs?
- RQ3. what channels have senior managers used to access evidence to make decisions?
- RQ4. to what extent do senior managers use records for evidence-based decision-making?
 - SQ4.1, When do decision makers access, assess, and use accurate, complete, and reliable records for evidence-based decision-making?
- RQ5. What impact has the use of records contributed to improved service delivery?
 - SQ5.1. What programs have improved due to use of records for EBDM?

1.7 Research design and methodology

Bertram and Christiansen (2014, 40) posit that when a research question has been formulated, the next step is to develop a research design, which is a plan that tabulates the type of data to be collected, as well as how it will be collected and analysed. The following sub-sections summate the methods used in the study which will be elaborated in Chapter Four.

1.7.1 Research approach

Creswell and Creswell (2018, 3) define research approaches as “plans and procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis and interpretation”. In addition, research approaches involve philosophical assumptions or worldviews that guide research such as, post-positivist, constructivist, critical, transformative and pragmatic (Creswell & Creswell 2018, 5). This study used the descriptive quantitative research approach and adopted the positivist worldview. The quantitative approach was found suitable because the study aimed to measure and describe data. Creswell (2014, 4) explains that quantitative research is suitable collecting data using a measurement instrument, and analysing it is using statistical procedures. Positivism was found appropriate for the study because researchers come in as objective observers to study phenomena that exist independently of them and do not affect or disturb what is being observed (Rehman & Alharthi 2016, 53). The researcher was a former Provincial Archivist of the Western Cape and therefore to avoid bias she separated her personal knowledge and experiences from the research.

1.7.2 Research design

A research design is a plan which outlines how empirical research is structured and undertaken (Leavy 2017, 8). Quantitative research designs are either experimental or survey research (Punch 2000, 53). This study used a survey research design since it provides numerical descriptions of some aspects of a sample of the study population (Creswell & Creswell 2018, 12); is suitable when one cannot observe directly what they want to study (Balnaves & Caputi 2011, 45); and allows for gathering data in a short

span of time (Bertram 2010; Muhambe 2018, 16). Western Cape governmental bodies are composed of provincial departments, municipalities, and public entities. Some are within close reach while most are far flung, the researcher would have needed quite a considerable amount of time to employ a design that involved direct interaction with participants. In addition, due to sudden leadership changes in governmental bodies, the shortest possible time for the study motivated the choice of research design. To ensure representability, the researcher used a cross-sectional study design. Bryman (2016, 53) describes the cross-sectional design as one that entails the collection of data on more than one case at a single point in time to collect quantifiable data about two or more variables which are then examined to detect patterns of association. The following sub-sections shed more light on this.

1.7.3 Target population

Beins (2009, 107), describes a target population as a group of respondents that we are interested in a study and meet a designated set of criteria. The population for this study was all senior managers who were responsible for service delivery from all fifty-four Western Cape governmental bodies. However, senior managers from medical and health facilities were excluded from this study because of the difference in the nature; use; type; volume of evidence; as well as epistemological and ontological differences between public administration and the health professions (HakemZadeh 2015, 146), as explained in Chapter Two. In addition, non-service delivery focused senior managers tasked with corporate responsibilities, namely, Corporate Affairs; Human Resource Management; Internal Audit; and Risk Management, were excluded from the study. Moreover, senior managers from regional offices of national departments were excluded from the study because they fall within the national government sphere.

1.7.4 Sampling

When researchers conduct survey research, they must decide whether to contact everybody in the population or to use a sample (Beins 2009, 249). A total of two hundred and forty-three (243) senior managers were selected using stratified random sampling. A stratified random sample is a type of

probability sampling which implies that each unit in the population has a chance of being selected and findings generalized to a larger population (Bryman 2016, 174 and Leavy 2017, 78). Senior management in Western Cape governmental bodies is composed of various levels such as a Director General, Municipal managers, Chief Executive Officers, Deputy Directors General, Heads of Departments, Chief Directors, Executive Directors, and Directors. Stratified random sampling considers these levels as strata and ensures representation of the various levels of the population. Ngoepe (2012, 2014) as well as Ngoepe and Ngulube (2013) in similar studies conducted in all South African governmental bodies, motivate the use of stratified random sampling for representability. In this study, the municipalities were more than provincial departments and public entities. Additionally, some provincial departments and municipalities had more senior managers than others. The use of stratified random sampling ensured that all of the governmental bodies were represented.

1.7.5 Data collection instruments and materials

Quantitative data collection instruments are composed of questionnaires, standardised measuring instruments, ad hoc rating scales or observation schedules (Punch 2000, 57). A web-based self-administered close-ended questionnaire was the primary data collection instrument of this study. The close-ended questionnaire was preferred because respondents choose from pre-set questions which are easier to understand, complete and analyse, as opposed to an open-ended questionnaire where respondents reply in their own words, responses may be difficult to quantify, codify and analyse (Beins 2009, 252; Bryman 2016, 244). One of the questions, however, was open ended to allow for the collection of qualitative data. In support, Bryman (2012, 250) advises that an open question can be included in a close-ended questionnaire, to allow necessary information to be provided. Survey Monkey Advantage version was used to create the questionnaire and its link sent by e-mail to respondents. The respondents' e-mail addresses were obtained from the Western Cape governmental bodies' websites. The benefits of the web-based questionnaire is that it is always available (Beins 2009, 74), thus accessible to participants who have hectic schedules such as senior managers. The questionnaire was pre-tested for validity and clarity by sending it to ten pilot participants to determine the clarity of

questions and response time. All participants responded to the questions within the estimated response time. However, when the study was underway, some respondents delayed in filling the questionnaire. Due to the delays, the researcher used the same close-ended questionnaire to conduct telephonic surveys with some respondents. Dillman, Smyth and Christian (2009, 302) refer to the use of more than one survey mode as mixed mode survey. The authors explain that a mixed mode survey is used to obtain quality data when there are delays or no responses to the online questionnaire. In such cases, the researcher switches to a telephonic or mail survey to boost the number and quality of responses.

1.7.6 Data analysis

Data analysis for this study was descriptive as elaborated in Chapters Four and Five. This study used random stratified sampling which implies generalizing findings to a larger population. The study sought to describe findings quantitatively, descriptive analysis was therefore found appropriate for data analysis. Fowler (2009, 145) posits that once the data has been collected, it must be translated into a form appropriate for analysis by a computer. With this in mind, Survey Monkey Advantage, the software application used to collect data, and the latest versions during the study, of Microsoft Office and Excel were used to analyse and code data. Survey Monkey Advantage has a functionality of automatically transferring captured data onto a file for data analysis and reporting. Excel was useful in instances where Survey Monkey Advantage could not analyse the data automatically.

1.8 Significance of the study

The South African government holds delivery of quality services to heart, hence the introduction of EBDM. It was mentioned in 1.1.3 that provincial and municipal governments are at the coal face of service delivery. Such services include *inter alia*, electricity, water, refuse removal, spatial development of localities, public housing, roads, water and sanitation systems, and public transport (Reddy 2016, 2). Since the introduction of EBDM, however, the researcher had not found an investigation conducted to evaluate its implementation in Western Cape governmental bodies. Moreover, no investigation was

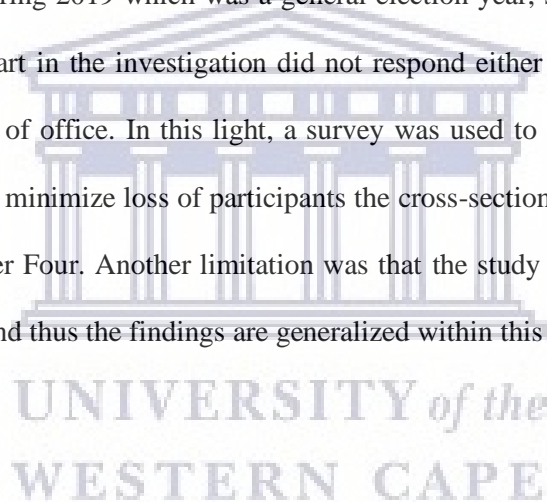
found which focused on the use of records by senior managers when making decisions. The significance of the study therefore is that it highlights the importance of using records in EBDM. In addition, the proposed model provides guidance on how records among other evidence sources can be used in EBDM. Additionally, the study provides insight to the DPME and the WCG into the current status of EBDM implementation in the South African public sector, which can assist to craft improvement measures where necessary. Overall, the study contributes to the use of records discourse in the South African public sector and internationally.

1.9 Limitations of the study

The study was conducted during 2019 which was a general election year, some participants who had initially consented to take part in the investigation did not respond either because of changes in the political climate or vacation of office. In this light, a survey was used to collect data in the shortest possible time. In addition, to minimize loss of participants the cross-sectional design was used for this study as explained in Chapter Four. Another limitation was that the study was conducted in Western Cape governmental bodies and thus the findings are generalized within this scope.

1.10 Delimitations

Senior managers from national government departments, entities and statutory bodies based in the Western Cape were excluded from the study. The study included senior managers in Western Cape government departments, public entities and municipalities responsible for service delivery. However, senior managers tasked with corporate responsibilities, namely, Corporate Affairs; Human Resource Management; Internal Audit; and Risk Management were excluded. The literature review, discussed in detail in Chapter Two revealed that the use of evidence in public administration is considered different from that used in technical decision-making, such as clinical medicine (Parkhurst 2017, 5). For this reason, senior managers in medical centres such as hospital Chief Executive Officers were excluded from this study. Furthermore, the study focused on the use of records as sources of evidence for EBDM.



Therefore, records management practices to facilitate their use was not within the scope of this investigation.

1.11 Definition of key terms

The following terms used in this study were found necessary to be clarified for readers to understand the content and context of this study. The clarified terms were, evidence; evidence-based decision making; governmental body; records and records management.

1.11.1 Evidence

In this study evidence is a reliable and authentic fact, record, organised body of information, or observation, which is used to support or justify beliefs or inferences or prove or disprove a fact (HakemZadeh 2015, 22). Sources of evidence identified and discussed in this study were, scientific, organizational, experiential and stakeholder evidence. Records, the subject of this study are part of evidential evidence.

1.11.2 Evidence-based decision-making

Barends, Rousseau and Briner (2014, 2) define EBDM as making decisions using the best available evidence from multiple sources to increase the likelihood of a favourable outcome. Central in EBDM implementation is that decision-makers have to know what it means, since some prefer to consult and use evidence from one source because of familiarity, availability and trustworthiness of the source.

1.11.3 Governmental body

For the purpose of this study, a governmental body is any legislative, executive, judicial, or administrative organ of state, including a statutory body, commission, board, or council, in the provincial or local sphere of government in the province of the Western Cape (Province of the Western Cape 2005, 2). In this study governmental bodies refer to provincial government departments, public entities and municipalities.

1.11.4 Records

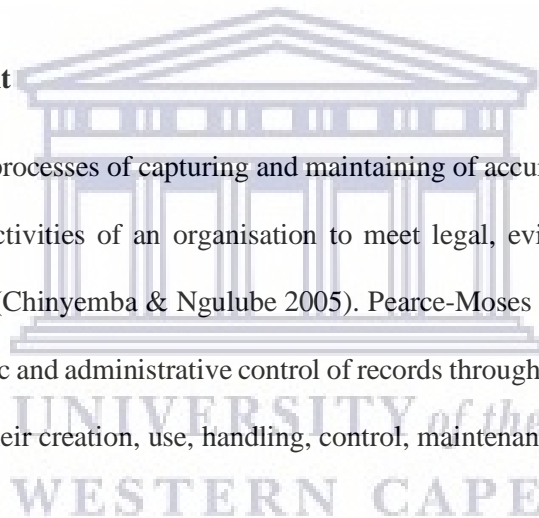
The Records Management Policy of Western Cape governmental bodies (Republic of South Africa 2017b) describes records as recorded information arising from transactions, created, or received during the conduct of business and contain information and evidence of organizational activities. For a record to be accepted as credible evidence, it is necessary to demonstrate that the record is authentic and reliable, that it is not fraudulent, and that its content is enough and accurate (Pearce-Moses 2005, 152). Iwhiwhu (2005, 345) adds that a record is information essential in decision-making, planning, operations, and assessment of results and projecting for the future, whether it is electronic (e.g. emails, internet content, documents, databases, digitally recorded images) or physical/printed (any information that is paper based).

1.11.5 Records management

Records management is the processes of capturing and maintaining of accurate, complete, reliable, and useable documentation of activities of an organisation to meet legal, evidential, accountability and social/cultural requirements (Chinyemba & Ngulube 2005). Pearce-Moses (2005, 334) defines records management as the systematic and administrative control of records throughout their life cycle to ensure efficiency and economy in their creation, use, handling, control, maintenance, and disposition.

1.12 Ethical principles

The study was conducted in accordance to the ethical rules of UWC. Furthermore, permission to conduct this study was sought from the Director General of the Western Cape Provincial Government as well as heads of governmental bodies before the study commenced. Ethical rules of respective governmental bodies where applicable were observed. Participants' consent was requested before data collection in compliance to relevant legislation and policies. The participants were assured of anonymity in the consent form and this was observed when the study was conducted. Reference sources cited in the study were appropriately referenced and Turnitin was used to check for plagiarism. A similarity index of 3% was found, which is acceptable.



1.13 Chapter outline

Based on the aims of the research the chapter outline of the research is as follows,

Chapter One. Introduction to the Study

This chapter provides the background and rationale, an overview of the records management practices in Western Cape governmental bodies, problem statement, research questions, research design and methodology. The significance, scope and limitations of the study, definitions of key terms, ethical principles and an outline of chapters are provided.

Chapter Two. Literature Review

In line with the study objectives, this chapter provides an analysis of literature on EBDM as well as use of records as evidence and related studies.

Chapter Three. Theoretical framework

This chapter provides an analysis of some EBDM and Archival Science theoretical frameworks, to support the ones chosen for the study. In addition, the chapter explains the study theoretical frameworks; their relevance to the study; and how they guide the study.

Chapter Four. Research methodology

This chapter explains the entire research design and methodology of the study.

Chapter Five. Data analysis and presentation

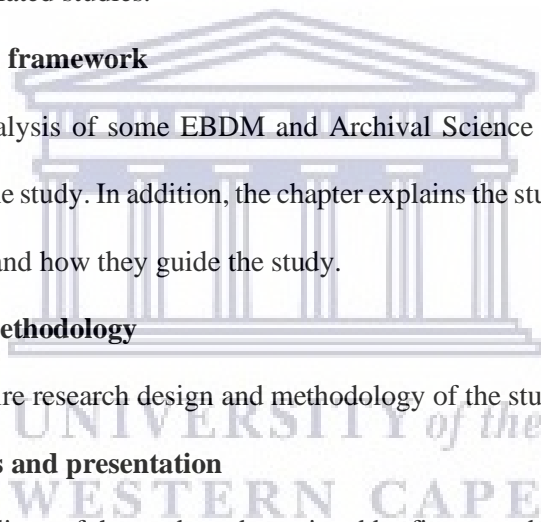
This chapter presents the findings of the study, substantiated by figures; tables; and graphs.

Chapter Six. Discussion and interpretation of research findings

This chapter provides a detailed discussion, analysis and interpretation of findings underpinned by scholarly views from literature reviewed and the theoretical framework of the study.

Chapter Seven. Summary of findings, conclusions and recommendations

This chapter concludes the study by giving a critical assessment of the findings in relation to the research questions, recapturing and evaluating the significance of the findings, recommending aspects and issues to address. Contribution to theory and practice, as well as opportunities for further research are also presented.



1.14 Chapter conclusion

This chapter provided the background and rationale for the study by describing records as sources of evidence, as well as a brief description of EBDM. The discussion revealed that the use of records as evidence for decision-making contributes to improved service delivery. To provide context, the chapter gave an overview of the South African government system and of records management in Western Cape governmental bodies. The research problem, objectives and questions were presented. A brief overview of the theoretical framework that guided the study, as well as the research design and methodology employed, was given. For clarification and understanding, key terms were defined in this chapter. The flow of the study was provided in the chapter outline. The following chapter provides an analysis of relevant studies to provide more insight into EBDM and use of records as sources of evidence for decision-making.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The previous chapter provided a background and rationale of the study and laid a foundation for this chapter. A review and analysis of relevant studies on evidence-based decision-making, records as sources of evidence and related studies are presented in this chapter. Bryman (2016, 83) describes a literature review as a background and platform for establishing what the contribution of the research will be. This literature review, therefore, conveys the research design, methodology, theoretical frameworks, and findings of previous studies to provide background, insight and understanding of EBDM as well as the use of records as evidence. Books, academic articles, conference papers as well as theses and dissertations were the primary focus. However, due to scarcity of sources in some themes such as, the use of records as evidence and service delivery improvement programmes implemented due to use of records, other literature such as guidebooks were reviewed. Literature was sourced from libraries and electronic databases including those of peer reviewed journals. The electronic databases include Scopus; Google Scholar; Open Access Theses and Dissertations; as well as Networked Digital Library of Theses and Dissertations.

The literature search revealed that EBDM in public administration is an under-researched subject compared to evidence-based medicine. The latter was, however, excluded from the review because of the difference in the nature, use of evidence, the type and volume of evidence as well as epistemological and ontological differences between the fields (HakemZadeh 2015, 146; Kazman Kohn et al. 2011, 215; Parkhust 2017, 5). The difference of EBDM application in the two fields guided the scope and delimitations of the study, which excluded senior managers from medical and health care facilities. The scarcity of EBDM literature is noted by some authors such as Reay, Berta and Kazman Kohn (2009, 5) who have encouraged research on decision-making practices to understand and increase the use of EBDM in public administration. EBDM related subjects such as evidence-based policymaking and evidence-based management were reviewed due to similarities in definition and scope. An interesting

finding of the literature review was that most literature was on the use of scientific research evidence compared to other sources of information. However, the literature revealed various evidence sources, as a result some authors have encouraged more studies on other sources to widen the evidence scope. The literature review revealed a scant body of knowledge on the use of records as evidence compared to the abundance of studies on their care and management as assets. Nonetheless, the latter were reviewed to provide context. The literature review is presented according to themes drawn from the Continuum Model of Evidence Use as highlighted in Chapter One. The model shows that EBDM implementation depends on the its awareness, knowledge and understanding by decision-makers, accessibility of evidence, use of sources of evidence by decision makers, and successful policy or service delivery outcomes. Additionally, the continuous use of records as evidence, posited by the Records Continuum Model was included to the themes. The themes are also the objectives of the study.

Figure 2.1 presents construction of the literature review themes:

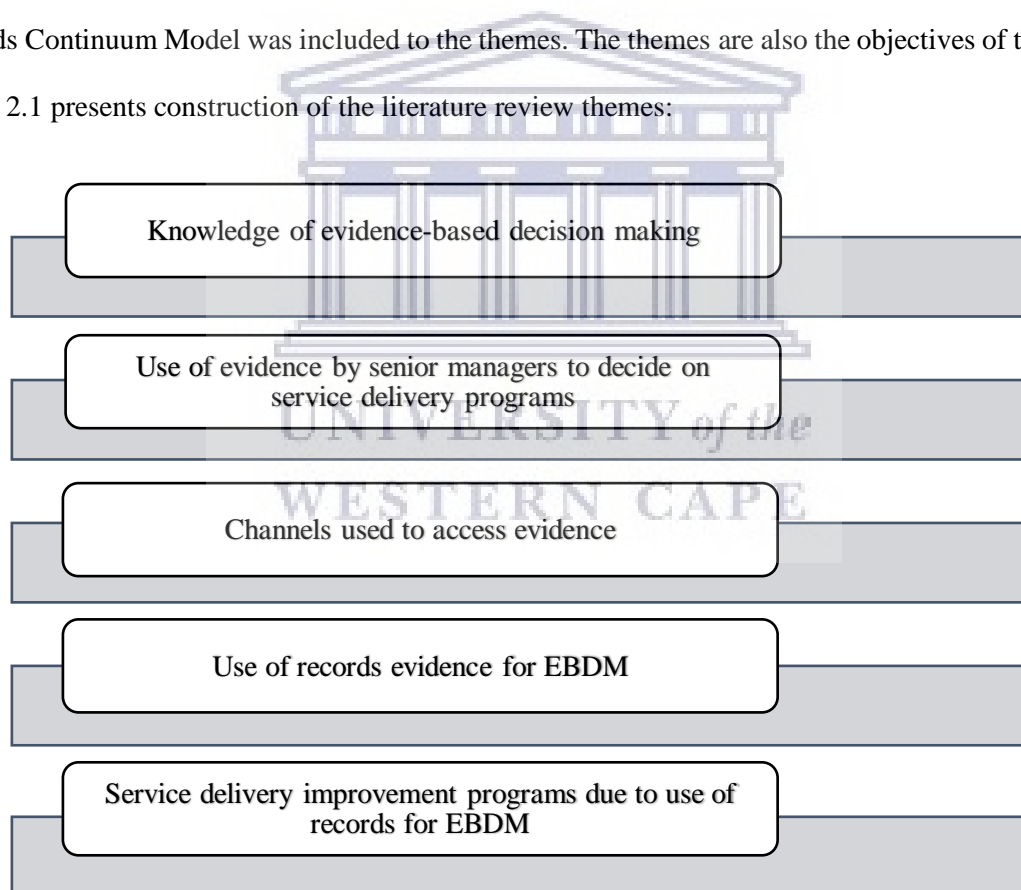


Figure 2.1: Construction of the literature review themes

After the discussion of the literature, the chapter concludes by summarizing major findings of the literature review and how they have guided the study.

2.2 Knowledge of evidence-based decision-making

Knowledge and understanding of evidence-based decision making and evidence sources is one of the pillars which facilitates proper implementation as advocated by the Continuum Model of Evidence Use. The Australian Bureau of Statistics (2010, 2); Baba and HakemZadeh (2012, 832) as well as Hall and Jennings (2010, 138) claim that there is an increasing emphasis on the importance of EBDM by governments world-wide. The emphasis is due to recognition of the potential that EBDM has in bringing evidence into daily practice and improve outcomes (Spencer, Detrich, & Slocum 2012, 128). The Australian Bureau of Statistics (2010, 2) posits that the benefits of implementing EBDM are that,

“policies become characterized by transparency and accountability since they respond to the real needs of the community; highlight the urgency of an issue or problem which requires immediate attention; ensure proper allocation and use of funds; produce an acceptable return on the financial investment by improving service delivery; improve decision-making by enabling information sharing about what policies have or haven’t worked”.

EBDM, however, requires good data; analytical skills; as well as knowledge and understanding for its proper implementation, posits Banks (2009, 8). The author evaluated EBDM in the Australian government and observed that for positive results, EBDM must be easily understood and skilled people be available or trained to identify and analyse reliability as well as usability of evidence. Head et al. (2014, 89), agrees that decision-makers should know EBDM processes, but most of them lack such knowledge and skills. Segone (2009, 21), on the other hand, in an editorial of a collection of United Nations International Children’s Emergency Fund Evaluation Working Papers, reveals that most decision-makers do know what EBDM is but concurs that many of them lack skills to evaluate and use evidence. The author recommends training and professional development in the discipline. Training and professional development of decision makers for an enabling EBDM environment is supported by Khayri Ba Tall (2009, 123); Lundgren and Kennedy (2009, 83); Marais and Matebesi (2012, 14) who contend that without EBDM knowledge, a strong demand for evidence would be difficult to establish. However, the more aware and knowledgeable decision-makers are about research being conducted in a field, the more likely they are to use the evidence produced for decision-making (Chan 2018, 71). A

report by Wills et al. (2016) which evaluates evidence-based policymaking in the Department of Environmental Affairs, observes that while some decision makers are well trained and knowledgeable in EBDM, knowledge is not standardised. Like Segone (2009, 21), the authors recommend continuous training to standardise the level of EBDM knowledge throughout the department. In addition, knowledge management was identified as one of the processes to facilitate knowledge standardization. HakemZadeh (2015, 10), in a doctoral study supports the education and training of managers on EBDM, but cautions that barriers such as lack of standardisation of management education programs may hinder the goal. The author proposed an EBDM model that facilitates the development of knowledge in the discipline for standardisation and professionalism. The model, presented in detail in Chapter Three, shows that evidence is used for EBDM if decision-makers are aware and have experience of using it. An article by Stewart et al. (2018) on capacity building for improved evidence informed processes, contends that mentorship programs can contribute to capacity building and help increase knowledge among decision makers. The article was a result of a review of the South African evidence-policy landscape within the public sector, higher education as well as research consultancies. Additionally, the article provided a qualitative analysis of a one-day interactive stakeholder workshops for EBDM role players. The findings from both data collection methods revealed that there was readiness for evidence use in some sections of the South African government, but EBDM capacity building was done in silos leading to duplication of efforts and variation in knowledge. The study recommended establishment of partnerships with training providers, donor funders and government to maximise the impact and acceptability of EBDM capacity building interventions.

Marais and Matebesi (2012, 9) as well as Nutley, Walter and Davies (2007, 36, 51, 93) observe that EBDM knowledge differs from decision-maker to decision-maker. The assertion is one of the constructs of the Continuum of Evidence Use Model discussed in Chapter Three. During the literature review, however, studies on knowledge and understanding of evidence were scarce. A study by Lengyel (2018) was considered relevant since it examined the relationship between risk management, knowledge management and decision-making. The study was a doctoral thesis which used structured interviews to collect data from decision makers at the National Aeronautics and Space Administration. The study

highlights the benefits of making decisions influenced by risk awareness and analysis capabilities as well as the necessary knowledge required to make informed decision in a high-risk environment. Furthermore, the study acknowledges the importance of decision- making knowledge and skills among managers, thus suggests key criteria that organisations should master before they could be considered to have decision-making competencies. The criteria are in some ways similar to what has been suggested by other authors in this section. For instance, that decision makers must have understood their decision-making role; developed appropriate decision-making knowledge and skills; and that the organisation endeavours for continuous learning to improve its decision-making capabilities.

The researcher noted that skills to identify, analyse and use evidence are central in EBDM, but there has been little mention and agreement of what counts as evidence. Most of the literature, for instance, Banks (2009); Jennings and Hall (2012); Nutley, Walter and Davies (2007); Parkhurst (2017) as well as Segone (2009) promoted scientific evidence as the most useful in public administration. The reason was that “science produces information that is free of personal prejudices and manipulation” (Young 2011, 20). However, the following section reveals that the use of one type of evidence may not have the expected outcomes. Use of various sources of evidence, on the other hand, has a potential of a favourable outcome. Young (2011, 21) asks a valid question that if there is no consensus of what counts as evidence, how are decision-makers expected to use evidence? The following section reviews literature on sources of evidence for more insight.

2.2.1 Sources of evidence

Knowledge of what evidence is, and which exists in an organization is necessary for its use as discussed in the previous section. Evidence is information which comes from various sources (Barends, Rousseau & Briner 2014, 3; Maxim et al. 2015, 8). Evidence plays a useful role in informing decision makers’ judgement (Banks 2009, 5). Good governance demands that the best information available should be used for making decisions about policies and programs (Jennings & Hall 2012, 245). Decision makers are therefore faced with different kinds of evidence which have a bearing on many aspects of policy

and administration (Head et al. 2014: 90; Jennings & Hall 2012: 247). However, for evidence to be used in decision-making, it needs to be the right evidence (Banks 2009, 8). However, there is no consensus on what counts as evidence (Baba & HakemZadeh 2012, 833). The Strategic Policy Making Team (1999, 33) contends that evidence consists of expert knowledge; published research; existing statistics; stakeholder consultations; previous policy evaluations; the internet; outcomes from consultations; costings of policy options; output from economic and statistical modelling. Zussman (2003, 2), on the other hand, considers organizational records as the most valuable source of evidence in decision-making. Barends, Rousseau and Briner (2014, 3) as well as Wills et al. (2016, 8), conclude that there are four information sources which count as evidence. Table 2.1. presents a summary of the sources of evidence:

Table 2.1: Sources of evidence (adapted from Barends, Rousseau & Briner 2014, 3)

Evidence source	Description
Scientific evidence	Findings from scientific research studies that follow the scientific method, test the validity of specific hypotheses and theories, and published in academic journals. Research may be government funded or initiated by academic and research institutions.
Organizational evidence	Administrative data and information from organizational records.
Experiential evidence	Experience of individuals, managers, consultants in the form of tacit knowledge. Differs from intuition because it is specialized professional knowledge.
Stakeholder evidence	Information gathered from the internal and external environment (employees, suppliers, partners and the public) about an organization.

The authors, supported by Jennings and Hall (2012, 249) as well as Strydom et al. (2010, 1), encourage the evaluation of the four sources of evidence rather than a single one, because evidence is sometimes not perfect and must always be critically appraised for quality, reliability and trustworthiness. The best

available evidence can then be used. Hall and Jennings (2010, 139) on the contrary, argue that the danger of consulting information from different sources is that the information would not be similar in reliability and validity. The following sub-sections provide insight into the types of evidence sources.

2.2.1.1 Scientific evidence

Most of the literature reviewed, such as Baba and HakemZadeh (2012); Baker and Welner (2012); as well as Banks (2009), show that scientific evidence is the most considered in EBDM. The reason as explained by Parkhurst (2017, 16) is that scientific evidence is more reliable because of the scientific methodology used to identify a problem, investigate and solving it. Additionally, Rousseau, Manning and Denyer (2008, 10) stress that managers are expected to make decisions based on scientific evidence. However, to inform decisions and improve lives, research needs to be relevant to all and informed by those with real-life experience (Latham 2007, 1027; Stewart, Dayal & Langer 2017, 253). This implies that scientific evidence is not adequate on its own. Stewart et al. (2017) analysed EBDM terminology used in South Africa, over a fifteen-year period. Thematic content analysis of the terminology used was the method deployed in the study. The content was analysed from presentations, handouts and worksheets used to support the use of EBDM. The analysis revealed that there was misunderstanding of the terminology which was used to address EBDM role players and processes. The result of the misunderstanding was tensions between decision makers and researchers as well as a reluctance to use research evidence in decision-making. The Strategic Policy Making Team (1999, 40) advises that public sector organisations should use the research they themselves commission in order to improve the decision makers' attitudes towards scientific research.

In line with Stewart et al. (2017), Hall and Jennings (2010) as well as Head et al. (2014), revealed that decision-makers preferred to use other sources of evidence rather than scientific evidence. Head et al. (2014, 91), for instance, observed that despite the recognition of scientific evidence as a useful source for EBDM, there was a low uptake of research from academic institutions by government agencies. The study by Hall and Jennings (2010) was meant to determine the amount of successfully developed policies of government agencies based on formal scientific evidence, and the importance of scientific

information as a source of evidence on agency decisions compared to other sources of information. Similar to the current study, a survey was used to collect data from twelve government agencies in each of the 50 states of the United States of America. The selected agencies were responsible for alcohol and substance abuse; children and youth services; developmental disabilities; economic development; environmental protection; fish and wildlife; hazardous waste management; natural resources; state police; tourism; transportation and highways; as well as vocational rehabilitation. While acknowledging scientific evidence as a most prominent source of evidence, the authors identified nineteen information sources used in agencies, which fall into the groups mentioned in Table 2.1. The study revealed that the types of information sources consulted and used varied from agency to agency. For example, research intensive agencies such as, Fish and Wildlife as well as Environmental Protection relied more on scientific evidence and internal staff knowledge, while State Police and Tourism preferred information from professional associations and internal staff knowledge. The study additionally revealed that the common evidence type preferred by all the agencies was internal staff knowledge. According to Table 2.1, internal staff knowledge is classified as experiential evidence or corporate memory (Megill 2005, 11). The findings by Hall and Jennings (2010), demonstrate that decision-makers use sources of evidence they are familiar with because of trustworthiness and reliability.

2.2.1.2 Organizational evidence

The Centre for Evidence-based Management (2019) explains that organizational evidence is composed of statistical information; business analytics; management information systems; benchmarking information; branch/departmental information; and organizational culture. The facts and figures are in organizational records, while organizational culture is embedded in the work environment and employee perceptions. According to the Centre for Evidence-based Management (2019) and Lyons (2016, 1054), facts provide context about an organisation and its services, for example, to determine the need to provide a community library in a community, a municipality relies on correspondence and minutes of engagements with the community. Figures are statistics, therefore, would be the number of educational institutions in the area and its surrounds, pass or failure trends of learners, and rate of

literacy. Such facts and figures would provide evidence for decision makers whether to provide the library service or not. The Australian Bureau of Statistics (2010); Boulle et al. (2015, 4) consider statistical information a vital source of both scientific and organizational evidence, however, to make sense, statistics must be accompanied by facts. Additionally, decision makers must be trained and equipped with statistical knowledge and skills to identify useful data sets; interpret; and use them (Australian Bureau of Statistics 2010). The guidebook developed by the Australian Bureau of Statistics concludes that without the right statistical evidence, decision-making would be ineffective. Sources of organizational evidence are in records, for example, performance information; monitoring and evaluation reports of implemented programs; as well as customer feedback on the effectiveness of programs (Groves & Scheffel 2018). The authors in an article which reviews records systems and program evaluations, highlights administrative records as a valuable source of evidence which can be used in conjunction with research data to enhance decision-making. However, Rousseau (2018, 2), argues that information from program evaluations is not available immediately as in the health professions, managers therefore, do not get timely feedback on decisions made. The delays in accessing information, therefore, impacts negatively on the decision-making process.

Rousseau (2018), one of the prominent EBDM scholars, wrote an article based on research she had conducted over the years, to assist managers to make better organizational decisions. The author noted differences between EBDM in the health and management sciences and concludes that organizational decisions faced by managers in public or private administration, are different from those of the health professions, because of the various stakeholders involved in decision-making and processes in the management field. Her article therefore proposes decision-making practices that can reduce delays, errors and bias in decision-making. The author advises that various sources of evidence be considered for decision-making than relying on easily available information, such as organizational evidence. Moynihan and Ingraham (2004, 432), in support of organizational evidence, hypothesize that performance information improves public decision-making because decisions are based on what has been proven to be effective. However, the authors propose that their hypothesis should be tested in a variety of settings, to establish the conditions in which it is confirmed, and to ascertain the other possible

benefits of using performance information. Moynihan and Ingraham (2004, 447) concluded their study by presenting a credibility index for assessing performance information. In South Africa, performance information seems to be institutionalized and taken seriously, as seen in the establishment of the DPME, related programs and documentation. For instance, a Performance Information Handbook (Republic of South Africa 2011a) was published by the National Treasury to guide public organisations to improve the accuracy, availability and quality of program performance information. Subsequently, various National Evaluation Plans (NEPs) for five-year periods, have been developed such as the current NEP 2020-2025 (Republic of South Africa 2019d). The NEPs report on how evaluations have been used to improve government performance and discusses evaluations planned for the forthcoming five-year period. It can be concluded, therefore, that organizational evidence consists of information derived internally and externally about an organization. Some of this information is in the experiences of internal staff; consultants and field experts as experiential knowledge. However, Barends, Rousseau and Briner (2014, 3) consider experiential evidence different from organizational evidence. The following sub-section provides insight into experiential evidence.

2.2.1.3 Experiential evidence

Experience is what we know of the world we live in or a setting (Friesen 2012, 44). The Centre for Disease Control (2020) describes experiential evidence as the collective experience, knowledge and expertise accumulated over time by multiple stakeholders who are familiar, have practiced or lived in a setting. The experience and expertise are known as intuition or tacit knowledge. This type of evidence includes knowledge about what has or not worked previously; insights into potential implementation challenges; as well as insights into a community and its population. Blume (2017, 94) reveals that the term “experiential evidence” was introduced by Borkman in 1976. Though Blume’s article discussed experiential evidence in mental health, the author gives insight into social scientists’ views of experiential evidence and posits that, experience is the most valid type of evidence in that, lessons learned from direct participation in a setting, give an individual faith and certainty in the validity and authority of the knowledge obtained.

Head (2010, 83) in an editorial review of symposium papers, included political knowledge of policy makers as one of the sources of evidence. He posited that political knowledge is gained through experience and thus an important source of evidence, since the policy makers have experience in setting the overall political agenda of government. In support, a study by Head et al. (2014) discovered that the most valued source of evidence was the knowledge gained from experience by internal staff. The study was a longitudinal survey conducted over a seventeen-month period, between late 2011 and early 2013. The study aimed to determine the use of research evidence and expertise within twenty-one government agencies at state and federal levels in Australia, New South Wales, Victoria and Queensland in Australia. Two thousand and eighty-four middle-to-senior level policy officials from ten central government agencies and eleven human services agencies, participated in the study. Survey themes included: policy and research skills development and training; general attitudes towards research; and the use of evidence from a variety of sources, with a major focus on the use of academic research (Head et al. 2014, 92). The results of the study, however, revealed that the most valued evidence source was knowledge of internal staff. Table 2.2 summarizes the results.

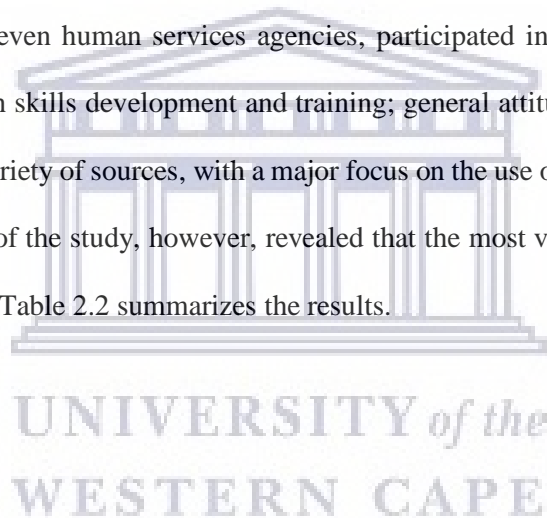


Table 2.2: Importance attributed by state and federal officials in New South Wales, Victoria and Queensland, Australia to sources of knowledge and information assisting decision-making in their work unit (Source: Head et al. 2014, 93).

Very important/important %	State	Federal
Internal agency staff knowledge	93	94
Other state government agencies in your state	83	54
Federal government agencies	77	93
Professional or industry associations	73	69
University researchers	70	70
Comparable state government agencies in other states	69	56
Interest groups	63	65
Private consultants	58	46
International organizations	51	64
News media	51	54
Think Tanks	48	49
Local government	42	30



Spencer, Detrich and Slocum (2012, 136) assert that decisions cannot be made without professional knowledge of experienced staff. However, professional knowledge is often under-mined and considered to be similar to biased un-informed opinions of staff. The authors argue that in addition to professional experience or organizational knowledge of staff, other factors including evidence evaluation skills; professional education; and continuous professional development should be considered when using experiential evidence. The authors stress that experience and expertise should not be undermined because they are fundamental elements of evidence-based practice. Belling (2009) on the other hand, reports in a conference paper, results of a study which investigated employee perceptions towards decision-making and relationships with decision makers. The study used content analysis and survey study designs. The study revealed that employees felt that they had limited influence in decision-making


except for operational and expert related decisions. High-level decisions such as strategic policies were done by decision makers without getting perceptions of experienced staff. The study concluded that employee perceptions has minimal impact on decisions. In agreement, Banks (2009, 5) discourages the use of employee perceptions or opinions as evidence because of constant unforeseen changes that affect organizational environments and people's perceptions. However, Barends, Rousseau and Briner (2014), however, assert that all evidence is needed to identifying problems, likely causes, and how the problems can be solved.

2.2.1.4. Stakeholder evidence

Stakeholders are any individuals or groups who may be affected by an organisation's decisions and their consequences, such as, employees, managers, suppliers, customers, shareholders, the government, community leaders, media, and the public (Barends, Rousseau & Briner 2014, 12; Langer et al. 2017, 1). Literature reviewed uncovered that evidence obtained through stakeholder engagement adds value to policies, services or projects. Tomaz et al. (2020) for instance conducted a study on the contribution of stakeholders to the development of exercise and movement guidelines for children. The study used a survey to collect data from early childhood practitioners, parents and community health workers; as well as meetings with governmental and non-governmental organisations, to collect data. The findings of the study informed the development of 24-hour movement behaviour guidelines, their dissemination and implementation. In addition, a study by Burkhart and McCrae (2020) promoted the use of stakeholder engagement to gather information to improve services. The authors highlight how collaborating with stakeholders led the Action Coalition on Human Trafficking, to become a leader in Canada's response to human trafficking. D'Agostino et al. (2020) echo the same sentiments in their article which shows that transparent stakeholder engagement processes can have a positive impact. The stakeholder engagement processes led to development of national water management policies and a sustainable agricultural landscape in Malta. The study used a Delphi analysis for stakeholders to identify matters which had an impact on agriculture in Malta; a questionnaire to collect data to inform water

management policy gaps; and a stakeholder workshop to identify actions to improve the Malta agricultural landscape.

Acknowledging the positive contribution of stakeholder evidence in decision-making, Cerda-Bertomeu and Sarabia-Sanchez (2016), report findings of a study conducted in Latin America among politicians, public managers, researchers and business consultants to determine whether these stakeholders have a shared perception of the role the public sector should play in branding of places. The study acknowledges the positive role of stakeholder engagement in such decisions than a top down approach from politicians. In contrast, an article by Lehtinen and Aaltonen (2020) highlights the lengthy process and complexity of engaging external stakeholders, which may negatively impact timeous decision-making. The authors proposed a model to simplify the process of organizing external stakeholder engagement.



In South Africa, stakeholder engagement is required from all government spheres (Department of Public Service and Administration 2010; South African Legislative Sector 2013). In addition, information from clients and communities gathered through community engagements should not be excluded from EBDM, since clients are the centre of service delivery decisions (Spencer, Detrich, & Slocum 2012, 138). Furthermore, community engagements though costly, are the best platform to learn about citizens' views about services and using that feedback to improve service delivery (Lindquist 2013, 2). The researcher noted that terms such as community engagement, citizen engagement, stakeholder engagement, and public participation were used in the literature. However, Mathebula (2016, 19) asserts that in South Africa, the term “public participation” is preferable because it is inclusive of the public than “community engagement” which the author believes to represent a few elites. The article by Mathebula (2016) reviewed ten articles which used “community engagement” and “public participation” interchangeably, and advocates for the use of the inclusive term “public participation”.

The term public participation is set out in Section 195 (1), Chapter One of the Constitution of the Republic of South Africa (South African Government 2019) which states that “people’s needs must be

responded to, and the public must be encouraged to participate in policy-making". A framework by the South African Legislative Sector (2013, 7), describes public participation as a process of consulting with people; interested or affected individuals; organisations; and government entities before deciding to achieve representative and more acceptable decisions. The framework though developed for the Parliament of South Africa and provincial legislatures, shows that public participation is an evidence gathering mechanism supported by the Constitution, and considered important in the decision-making process. The public participation guidelines developed for public sector institutions by the Department of Public Service and Administration (Republic of South Africa 2010), state that South African government institutions are duty bound by legislation to engage communities on policies, programs, projects and any decisions which might affect such communities. Public participation is therefore considered an essential tool for getting views of communities. The African Peer Review Mechanism; Open Government Partnership; Community Development Workers; Imbizo; Ward Committees; and Integrated Development Planning are some examples of public participation platforms introduced by the South African government (Republic of South Africa 2010, 5).

The legal mandate of government institutions to engage communities is affirmed by Makhedama (2014, 19) and Williams (2006). Both studies evaluated public participation processes in municipalities. Williams (2006) conducted his study in the Cape Town metropolitan municipality and notes the deterioration of community participation forums due to few community organisations; as well as change in its focus of empowering communities to serving party politics (Williams 2006, 198). The study encourages revival of community participation for implementation of socio-economic development programs much needed in the communities. The study stresses that local government planning programs can contribute towards community development if the communities voice out their needs. Makhedama (2014), conducted a study at the King Sabata Dalindyebo Local Municipality in the Eastern Cape province to assess the effectiveness of public participation in Integrated Development Planning. The author notes that public participation in South Africa is not awarded the importance it deserves and therefore was not effective. Both studies highlight the Constitution of South Africa (South African Government 2019) and Local Government Municipal Structures Act (South African Government 2019)

as legislative tools to be complied to concerning public participation. The Municipal Structures Act specifically requires executive mayors to “annually report on the involvement of community organisations in the affairs of the municipality and ensure that due regard is given to public views and report on the effect of consultation on the decisions of council” (South African Government 2019).

Despite the South African government’s commitment to involve her citizens in service delivery decisions, communities still complain about poor service delivery and have resorted to protests as a way of voicing their dissatisfaction (Managa 2012, 1; Schellnack-Kelly 2013, 4; Twala 2014, 159). Reasons for the protests are exclusion from local decision-making and accountability by municipal officials and councillors (Twala 2014, 154). In some instances, service delivery protests are often staged by citizens who feel excluded from enjoying basic services and employment opportunities (Langa & Kiguwa 2013, 21). Sadly, the protests are often violent, destructive, and influenced by party politics and factions (Langa & Kiguwa 2013, 22). Service delivery protests are a result of government’s failure to work collaboratively with communities to give ordinary citizens shared responsibility in shaping socio-economic development. Until this is realized and resolved, violent protests may persist. The researcher notes from the discussion of various authors (Langa & Kiguwa 2013; Managa 2012; Schellnack-Kelly 2013; Twala 2014) that service delivery protests though not a conventional evidence gathering platform, give enough evidence that something is amiss in-service delivery and needs to be addressed in order to appease the communities.

Porumbescu (2018, 234) observes that due to the proliferation of information and communication technology (ICT) and the number of mass media online outlets, most citizens rely on the media for information about government’s performance because it is readily available. The author posits that, because the media plays a role in disseminating information about government performance to the public, it can contribute to building good relationships between a government and its people, as well as citizens’ perceptions of government’s performance. Nonetheless, the media’s role is to inform and educate the public about government so that they can contribute to a better democracy (Da Costa 2012, 34). The study by Da Costa (2012) investigated the impact of the Protection of State Information Bill

on media freedom in South Africa. The study found that the Bill, also known as the Secrecy Bill, is unconstitutional because it denies press freedom by censoring the media and persecute those found to be in possession of classified information. The Bill, therefore, would deter the media from fulfilling its role of contributing to democracy and nation building. Additionally, scholars such as Mabote (1998, 92); Radu, Morwe and Bird (2012) observe that the media in South Africa is biased in its reporting and thus does not play its role of contributing to democracy. Radu, Morwe and Bird (2012) conducted a qualitative analysis of news reports from various print and broadcast media, that focused on service delivery protests between 2009-2011. The study examined whether the media in South Africa offered alternatives to violence in their coverage of municipal service delivery protests that occurred over the two-year period. The research revealed that media reports were biased and partial, not fully informing the public, therefore exacerbating conflict between citizens and government. Even though the media is a source of stakeholder evidence, it is viewed negatively by both the state and the public.

It can be noted from the overall literature review in this section that evidence is derived from various sources, but there is no consensus on what is considered as the best evidence. Sutcliffe and Court (2005, 3) suggest that evidence is ‘any systematic effort to increase the stock of knowledge’. This means that all kinds of evidence are included if they have been collected through a systematic process, are available, reliable, relevant and valid (Barends, Rousseau & Briner 2014, 5; Solesbury 2001, 8). The following sub-section expands on the use of evidence for decision-making by senior managers.

2.3 Use of evidence to decide on service delivery programs

Sutcliffe and Court (2005) posit that use of evidence in policy decisions can help save lives, reduce poverty and improve development performance. In support, Banks (2009, 5) asserts that without evidence, policy makers resort to intuition, ideology, wisdom and theory. Therefore, resulting in uninformed decisions. Sutcliffe and Court (2005) give an example of some developing countries where the HIV/AIDS pandemic had worsened because evidence of what causes the disease and how to prevent it from spreading had been ignored. EBDM therefore, differs from country to country (Banks 2009, 15;

Segone 2009, 18, 21; Stuart 2012, 2). Additionally, evidence tends to be less well established in developing countries (Sutcliffe & Court 2005, 2). Table 2.3 provides a summary of the differences:

Table 2.3: Construction of EBDM in different country settings (Adapted from Segone 2009, 22)

Type of country	Stage	Evidence use
Vicious circle countries	Stage 1	Decisions are opinion-based. Evidence is weak, and policymakers make little or no use of it. The result is poor policy decisions and development outcomes. Increase of supply and demand of evidence and dialogue between producers and users of evidence is recommended.
Evidence supply constrained countries	Stage 2	Decision-making in these countries is evidence-influenced. Evidence is weak but used for policy decisions. However, evidence deficiency reduces the quality of decision-making which results in poor development outcomes. The recommendation in this case is to increase the quantity and quality of evidence and improve dialogue between producers and users of evidence.
Evidence demand-constrained countries	Stage 3	Decision-making in these countries is evidence-influenced. The quantity and quality of evidence is improving but not used for decision-making because policy makers lack the incentives and capacity to utilize it. This results in poor policy design and development outcomes. Measures to increase the demand for evidence and dialogue between producers and users of evidence are recommended.
Virtuous circle countries	Stage 4	Decision-making is evidence-based. Evidence is improving and increasingly usable, useful and used for decision-making. This results in better policy designs and development outcomes.

Stage 4 of the table serves as a benchmark which is to be strived for by most governments. This assessment model was adopted in this study and used to assess the status of EBDM in the Western Cape governmental bodies, as discussed in Chapter 7.

Banks (2009) in a conference paper presented on behalf of the Productivity Commission of Australia, evaluated EBDM in the Australian government. According to Table 2.3, Australia seems to be a Stage 4 country, as evident in some programs reviewed in the paper. The author observed that although there were some successes in EBDM implementation, Australia still fell short and could do better. He owed successes to political support and an evidence-receptive government. Banks (2009, 8) advised that for positive results, evidence must be transparent and easily understood, skilled people be available or trained to analyze its reliability and usability. Additionally, evidence must be used through all policy-making stages. He cautioned however that decisions that must be taken immediately could be affected

by unavailability of evidence. Table 2.4 provides a summary of the benefits of using evidence in different policy making stages

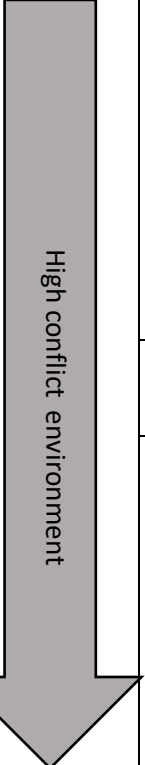

Table 2.4: Benefits of using evidence at each policy cycle stage (adapted from the Australian Bureau of Statistics 2010, 3)

Policy-making stage	Contribution of evidence
Stage 1: Identify and understand the issue	Evidence assists decision-makers to identify existing economic, social or environmental issues that need addressing by providing trends analysis, population statistics or inflation fluctuations.
Stage 2: Set the agenda	Statistical evidence can highlight the relevance and severity of an issue in numerical terms, and thus demonstrate its importance to be prioritized.
Stage 3: Formulate policy	Careful and rigorous statistical analysis provides a clear understanding of the extent of the problem. This will help to determine the most appropriate policy or program options to address the issue. Proper planning is done, benchmarks and measurable performance indicators are developed to monitor and evaluate progress
Stage 4: Monitor and evaluate policy	The success of the policy/ program in quantifiable terms can be measured against the performance indicators and benchmarks developed in stage 3 to accurately measure progress. This enables an assessment as to whether the policy meets initial aims and objectives, as well as provides insight and identification of areas that require improvement. Performance and research evidence can contribute to continuation/ discontinuation of some programs which have been found effective/ ineffective. The process is continuous and should be repeated, by beginning the cycle again

Availability of the best evidence is central in EBDM although it is no guarantee that it will be used in (Jennings & Hall 2012, 249) nor will it produce intended results (Kay 2011, 238) or improve organizational performance (Reay, Berta & Kazman Kohn 2009, 11). Jennings and Hall (2012), reached their summation after a survey was conducted to find out how often government agencies in the United States of America sought evidence to support policy decisions and how much weight various information sources had. The study was conducted among six hundred agency directors at twelve selected government agencies in fifty states. A total of two hundred and thirty-four responses were received but two hundred and seventeen were analysed for reliability. Nineteen types of information sources were weighted. The study revealed that evidence was generally or sometimes available for use in decision-making, moreover, agencies varied in the attention they paid to different sources of evidence

and the weight they attached to them. Scientific evidence was found to be the most commonly available source, but its use differed per type of agency. Jennings and Hall (2012, 260) concluded that the use of evidence does not depend only on its availability, relevance, credibility, and staff capacity, but on the mission and mandates of the agency, its political environment and internal characteristics. The authors posit that the political environment affects EBDM, for instance during periods of stability and harmony in a government or institution, there is support of evidence use. On the other hand, periods of instability and conflict reduce, or limit evidence use due to other priorities (Jennings and Hall 2012, 260). Table 2.5 explains the findings:

Table 2.5: Influence of political environment on EBDM in agencies (adapted from Jennings & Hall 2012, 261)

 <p>High conflict environment</p>	<p>Challenged Evidence-Based Agencies:</p> <ul style="list-style-type: none"> • Competing values impede the use of EBDM • Are under pressure to respond to a variety of concerns and interests • Decisions are politicized rather than based on evidence • The mission and agenda are challenged by political conflict. <p>Example: Environmental Protection Agencies</p>	<p>Evidence-Based Agencies:</p> <ul style="list-style-type: none"> • Are free to use EBDM. • Are encouraged to use EBDM. • Have clearly defined problems and widely accepted mission and goals. <p>Examples: Research Institutes</p>	 <p>Low conflict environment</p>
	<p>Symbolic agencies:</p> <ul style="list-style-type: none"> • Political conflict is high and there is little evidence about the impact of programs. • There is no evidence about the efficacy of their programs and therefore are not given priority. <p>Examples: Arts Councils, Heritage Resources Agencies</p>	<p>Experiential Agencies:</p> <ul style="list-style-type: none"> • Lack scientific evidence to guide their programs; • There is agreement and support of agency mission and goals • there is less agreement about EBDM and limited evidence on how what works • Highly political oriented <p>Example: Economic development Agencies</p>	

In Table 2.5, agencies are grouped into four clusters and the table presents how high and low conflict political environments affect use of evidence in each group. The grey column symbolizes low conflict environments with examples of agency types, while the arrow beside it shows high use of evidence in those agencies. On the other hand, the white column with a grey and black arrow beside it, shows low use of evidence in high conflict environments. Jennings and Hall’s theory provided insight into EBDM in public entities (as agencies are known in South Africa), and can be used in other tiers of government where various sources of information are available (Jennings & Hall 2012, 264). Maxim et al. (2015, 28, 41) and Parkhurst (2017, 28) suggest that because EBDM is dependent on a constantly changing environment, organizations, therefore, must be subject to regular environmental scans to give an informed picture of the current internal and external circumstances in which the organization operates. Evidence can therefore be used despite environmental changes. Maxim et al. (2015) developed an EBDM training manual commissioned by the City of Surrey, British Columbia, for staff mentoring and development. The training manual provided an evidence use framework as summarized in Figure 2.2:

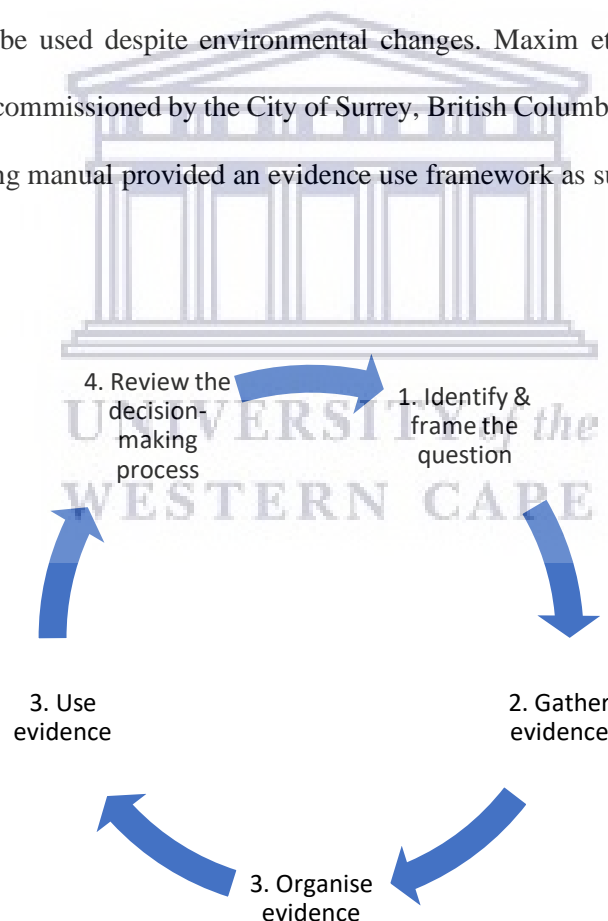


Figure 2.2: Evidence use framework (adapted from Maxim et al. 2015)

The framework shows that use of evidence is continuous and encourages regular evaluation of previous decisions performance as well as its environment, because of the political, economic, and social changes governments are subject to. Choo (1998, 3) explains that changes, events, and trends in the environment continually create signals and messages which organisations should detect and use the information to adapt to new conditions. When decisions are based on these messages, further information is generated and transmitted, and these in turn lead to new signals and decisions. Reay, Berta and Kazman Kohn (2009) made an interesting discovery that there was no evidence that EBDM improves service delivery nor organizational performance. The authors conducted a systematic review of EBDM literature in the management field, to determine whether there were substantial studies; the quality of evidence on EBDM; and whether employing EBDM would improve organizational performance. The authors reviewed electronic articles written in the English language from 1948 to 2008. One hundred and forty-four articles were found and reviewed. Most of the articles supported use of professional opinion and anecdotal information from staff. However, Barends, Rousseau and Briner (2014, 5) consider these types of information as unreliable when used on their own. The study concluded that there was still a need for strong evidence on the impact of EBDM on organizational performance. Walker (2015) used a different stance to investigate the impact of EBDM on organizational performance. The study used a qualitative mixed method design to investigate whether evidence-based shared decision-making in organisations could bring about commitment to a decision by various parties (Walker 2015, xii). The premise was that EBDM theoretical frameworks focus on decision-making by a single manager. The author's interest was to find out whether EBDM was a viable approach in shared leadership situations. Walker's study highlights the importance of collaboration in decision-making and posits that EBDM may not work well in every organisation or every decision situation due to different patterns of reasoning between professional groups. The study concluded that effective EBDM in collaborative groups is possible but requires guidance. The study provided a fertile background to this study because of the diverse management levels of South African governmental bodies. The different governmental bodies in South Africa must work cooperatively for effective service delivery.

Compared to other countries, EBDM in South Africa is quite recent. Boulle et al. (2015, 3) posit that evidence-based processes were introduced in 2005 but implemented in 2011 with the adoption of the National Evaluation Policy Framework of the (DPME). The DPME's was established in 2010 to strengthen the use of monitoring and evaluation evidence in government (Paine Cronin & Sadan 2015, 1). South African policy development has been largely influenced by the United Kingdom and Canada, so was EBDM (Marais & Matebesi 2012, 5; Paine Cronin & Sadan 2015, 1). However, unlike the UK, South Africa lacked requirements, criteria, norms or guidelines for the use of evidence in policy (Paine Cronin & Sadan 2015, 2). The recent introduction of EBDM is evident from the few information sources found. Most of the available literature were conceptual notes, reports, evaluation studies commissioned by the DPME and a few academic studies. One of the evaluation studies was a case study by Boulle et al. (2015), conducted to provide an overview of the Early Childhood Development (ECD) program in South Africa, as well as background and lessons for evidence-based policy making. The inclusive ECD program commenced in 1994 after the democratic government came into power. The program was introduced to include communities which were previously excluded from ECD in the past and became one of the programs reviewed by the DPME in 2011. The purpose of the review was to pilot the recently introduced National Monitoring and Evaluation System. Sources of evidence such as documents, evaluations, studies, consultation with practitioners, civil society and researchers were used during the review. Similar to Australian Bureau of Statistics (2010, 3), Boulle et al. (2015, 3) concur that evidence-based policy and implementation processes go through four stages and evidence is needed in each policy-making stage. The stages are diagnosing the problem; planning and budgeting; output; outcome and impact evaluation. Figure 2.4 demonstrates how evidence was used in evaluating the ECD program.

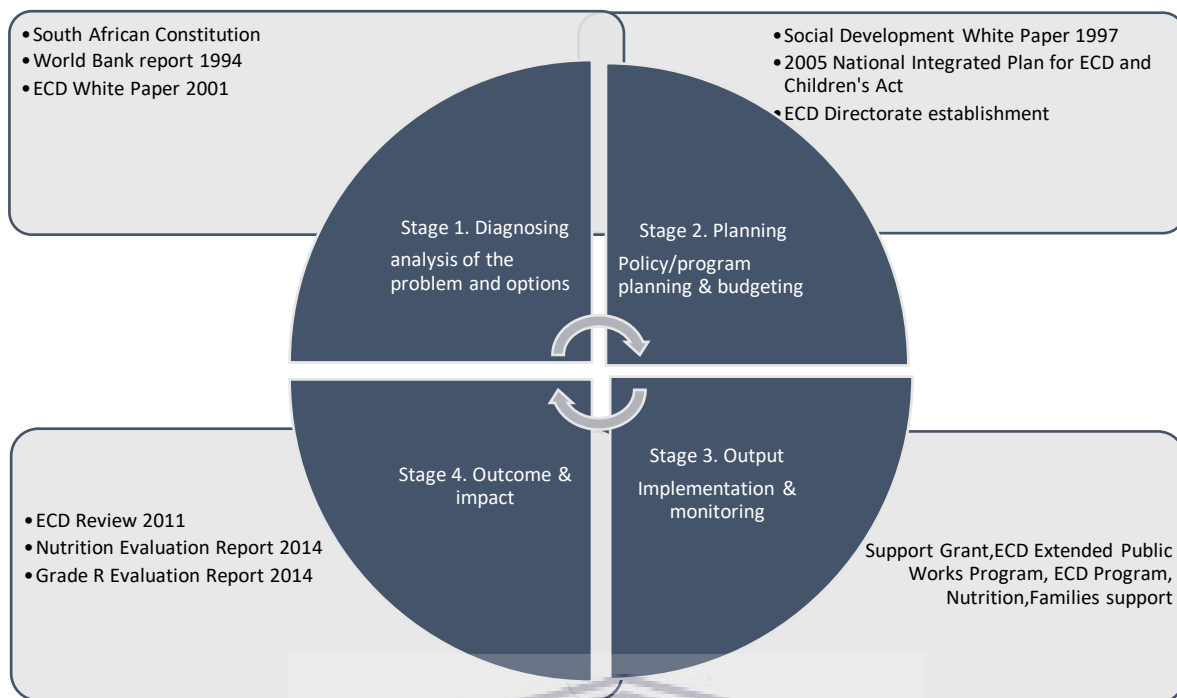


Figure 2.3: ECD Evidence-based policy making implementation cycle (Boulle et al. 2015, 9)

The dark circle in the middle of Figure 2.3 is composed of stages one to four of the evidence-based policy making cycle; while the grey rectangles show the type of evidence and its use at each stage of the ECD program. Although various sources of evidence were used, the focus of the study was on the use of scientific evidence. The authors provided an important finding that management information found in administrative records had often been ignored. The authors, therefore, recommended that administrative records need to be included in the policy making process. The authors concluded by iterating the important role that evidence has in policy making and the need for more evidence-based processes to assist in accelerating service delivery and improve impact of programs (Boulle et al. 2015, 13). This study provided insight into the status of EBDM in South Africa, challenges; successes and importance of administrative records amongst other sources of evidence.

Another evaluation was on the Program to Support Pro-Poor Policy Development, commissioned by the Office of the Presidency to assess current attitudes towards EBDM in South Africa. The study was descriptive and exploratory, conducted by Paine Cronin and Sadan in 2011 and published in 2015.

Similar to this study, the population was composed of senior managers at different levels from different types of governmental bodies albeit at national and provincial level. Interviews were conducted with a total of fifty-four senior officials from fifteen public entities; eight transversal departments at national level responsible for regulating and supporting the public service; two national departments, that is Education and Social Development; and four provincial departments, namely, Limpopo and Western Cape Premier’s Offices and the Western Cape departments of Local Government and Basic Education. The study shows that there was a slow uptake of evidence-based processes due to a haphazard policy cycle; overlapping roles of politicians and administrators; as well as levels of EBDM understanding. One of the recommendations was that change management processes should be included because EBDM implementation brought in organizational change (Paine Cronin & Sadan 2015, 10). To successfully implement EBDM, the interviewees suggested a standardised policy cycle which included a theory of change, stages where evidence could be used, roles and responsibilities of political leaders and senior officials as presented in Figure 2.4:

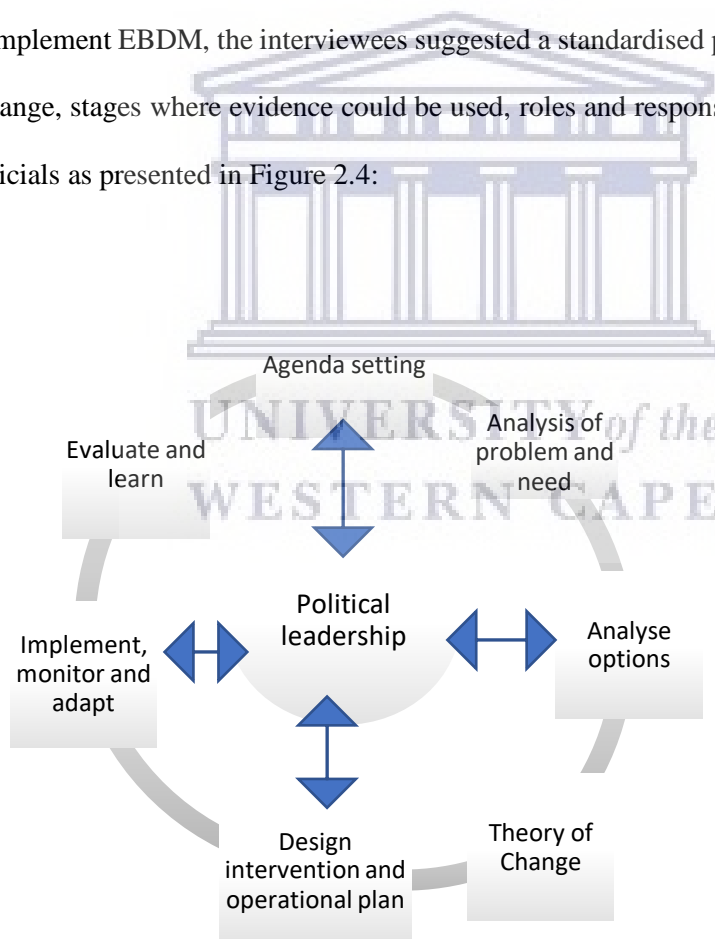


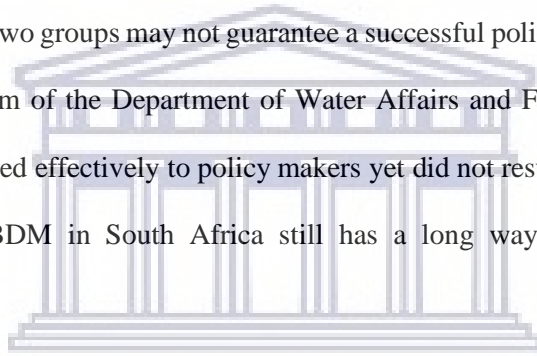
Figure 2.4: Construction of the of evidence-based policy cycle stages suggested by officials (Paine Cronin & Sadan 2015, 7)

In Figure 2.4, the policy cycle stages where involvement of politicians is needed are indicated with blue arrows, while the other stages are the responsibility of senior officials. Senior management training in evidence-based processes was recommended to improve attitudes and increase knowledge as well as the use of evidence. The study by Paine Cronin and Sadan (2015) shows that much still needs to be done for South Africa to reach Stage four of Table 2.3.

More insight into EBDM in South African provinces was presented by Marais and Matebesi (2012). Their study assessed the relationship between scientific research evidence and policy making in the implementation of Provincial Growth and Development Strategies (PGDSs) in South Africa. PGDSs are tools for guiding sustainable development outcomes in provinces in line with NDP (Republic of South Africa 2005, 1). The authors used a literature review to trace the history as well as barriers to EBDM internationally; and collected data by conducting quantitative and qualitative assessments of the use of evidence in the compilation of PGDSs. The study was to determine the extent to which evidence was used; the nature of evidence used in the development of PGDSs; processes, and obstacles to using evidence. The paper discovered that EBDM processes varied from province to province due to lack of understanding of the role that can be played by research evidence in decision-making. Additionally, the authors discovered that in some instances, there were poor relationships between researchers and decision-makers, hence the lack of EBDM understanding and low uptake of the use of research evidence. Like other studies, Marais and Matebesi (2012), advised against the use of one source of evidence; recommended that good relationships between policy makers and researchers be established through partnerships between governments and research institutions to increase EBDM. Leaning on the Continuum Model of Evidence Use, Marais and Matebesi (2012), advised that a consensus should be reached on the types of evidence to be used.

Healthy relationships between decision makers and researchers are significant for the uptake of evidence use, as demonstrated in studies by Strydom et al. (2010) as well as Segone (2009). Strydom et al. conducted a literature review to investigate factors that influence the uptake of scientific evidence into policymaking, the barriers to using science in policymaking, and how to improve the relationship

between scientists and policymakers. The research was conducted under the auspices of the Council for Scientific and Industrial Research. The study highlights various successful projects where scientific evidence was used to make decisions through collaboration of scientists and government. The projects were, The Elephant Project, implemented in 2006 to improve elephant management in protected areas; Policy on orphans and vulnerable children, implemented by the Human Sciences Research Council of South Africa, the WK Kellogg Foundation and Department of Social Development; and the establishment of a Children's Institute at the University of Cape Town for the purposes of informing policies, laws and programs for children through the use of evidence. The study acknowledges that scientists and policy-maker's priorities may not be the same, but communication and consensus can result in policies backed by sound evidence. However, the authors caution that good relationships and communication between the two groups may not guarantee a successful policy. An example is the South African River Health Program of the Department of Water Affairs and Forestry, in which scientific information was communicated effectively to policy makers yet did not result in its uptake. Strydom et al. (2010) revealed that EBDM in South Africa still has a long way to go to be successfully implemented.



EBDM implementation in South Africa has nevertheless gained some ground since its introduction. Tools and processes have been put in place as demonstrated in a recent study by Tiravanhu, Olaleye and Bester (2017). The study explored the implementation of a Management Performance Assessment Tool (MPAT) and its impact on evidence-based decision-making within the South African public sector during 2011-2016. MPAT is a structured evidence-based approach to assess management practices to improve performance and service delivery of national and provincial departments (Tiravanhu, Olaleye & Bester 2017, 683). The assessment focuses on four key service delivery areas, namely, Strategic Management; Governance and Accountability; Human Resource and Systems Management; as well as Financial Management (Republic of South Africa 2015a, 7). The Evidence-Based Practice Implementation Framework was used as a theoretical framework. During the MPAT implementation process, senior managers are given an opportunity to assess themselves followed by interviews and examination of evidence to support the self-assessment results. The study found out that proper

implementation of MPAT is influenced by a socio-political environment and organizational culture of the implementing institution. The study noted that there was a need to upskill officials involved in MPAT in areas such as facilitation, data analysis, public policy and management information systems. This study provided an understanding of the historical background of evidence-based practices in national and provincial departments and highlighted an important factor for this study, that the public bodies had trouble in providing evidence documents during the first cycle of MPAT due to the poor state of document management. Availability and access to evidence are therefore vital for successful evidence-based processes as posited by the Continuum Model of Evidence Use. The following section reviews literature on the channels used to access evidence to determine where evidence is sought for decision making.

2.4 Channels to access evidence

Literature reviewed in 2.1.1. discovered that sources of evidence vary so would the channels of access. Based on study findings, HakemZadeh (2015); Head (2010); and Walker (2015), identified research reports; academic journals; and knowledge of experience staff as the most used sources of evidence. The evidence, therefore, would be accessed from academic institutions, libraries; journal websites; consultants or experienced practitioners; communities of practice; and expert panels. However, literature searches on channels to access evidence in public administration did not yield results. A few articles in the health sciences were found during the search but could not be reviewed since they are not within the scope of this study. Noting the paucity of literature, HakemZadeh (2015, 52) recommends that an independent organisation such as the Cochrane Institute need to be established for the social sciences to review; evaluate and disseminate research findings for EBDM. The Cochrane Institute is a charitable global organisation of independent researchers, professionals, patients, caregivers and individuals interested in accessing and using quality information for decision-making in medicine and health (Cochrane 2020; Young 2011, 20).

A study by Maxim et al. (2015, 113) revealed that one's organisation is the most reliable channel to access evidence. The authors advise that organisation-wide environmental scans should be conducted to identify existing information, research, statistics and other valuable data, for access when need arises. Additionally, the authors identified other channels such as corporate, academic or community libraries; private analysts; academic institutions; conferences or workshops; the world wide web; other organisations such as trade organisations; government departments and agencies. From the few studies reviewed, it is noted that evidence for EBDM can be accessed through various channels.

The literature review discussed in the previous sections revealed that decision makers prefer some sources of evidence over others. Furthermore, investigation into the use of other evidence sources other than scientific research has been recommended (Head et al. 2014). The following section reviews literature on the use of records as evidence for EBDM.

2.5 Use of records for evidence-based decision-making

This section intended to review studies on the use of records as evidence in public sector decision-making, however only a few studies were found. Most studies focused on management and care of records to maintain and protect their evidential value. A few of these studies were reviewed to provide context.

Pearce-Moses (2005, 153) posits that the evidential value of records refers “to evidence they contain of an organisation, functions of the government body that produced them, and the information they contain on persons, corporate bodies, things, problems, conditions, which the government body dealt with”. As sources of evidence, records are managed according to set rules to maintain their authenticity, accuracy and reliability. The proper management and care of records is for their accessibility and use as evidence. This premise was advocated by Sir Hilary Jenkinson, one of the early archivists (Gauld 2010, 10). The study by Gauld (2010) presents a post-modernist historical account of the use of records as evidence up to modern times. Leaning on the RCM, the study provides a critical analysis of the role and relevance of the archive in the electronic era. Gauld (2010) notes the changing role of the archivist from preserver

of records to an agent of accountability, due to the increased focus on auditing, monitoring, evaluation, and targets in organisations. The author thus acknowledges the evidential use of records and promotes the dual role of archivists as records managers. Gauld (2010) analysed approaches by prominent archival science scholars, such as by Luciana Duranti and Terry Eastwood, meant to promote the record's trustworthiness and authenticity. Gauld's post-modernist approach, analysis and his consideration of the RCM served as a valuable springboard for the current study, since the same model was used as theoretical framework for this study.

Scholars, such as, Abuki (2014, 1); Duranti and Rogers (2011, 373); Makhura (2005, 9); Marutha (2011, 27) as well as Ntontela (2015, 1), concur on the evidential use of records in decision-making. These studies, however, focused on the management and care of records for accessibility and use. Nutley, Walter and Davies (2007, 15) lamented unavailability of reliable evidence as the cause for its minimal use. The poor state of record management as an obstacle to accessing and using evidence was noted by Schellnack-Kelly (2013) in a qualitative study to analyse the roles of public archivists and records managers in managing information required to demonstrate evidence of governance. The study focused on compliance and observation of recognized records management best practices by municipalities to attain Millennium Development Goals. Additionally, the study analysed the roles of the public archivists and records managers in managing information required to demonstrate evidence of governance; examined the availability of information as evidence and circumstances hindering records managers and public archivists from providing effective access to information. The study used a survey and case study methods. Questionnaires and interviews were used to obtain information from one hundred purposively selected local government records management officials and three individuals involved with socio-economic and social development projects in municipalities in the provinces of Eastern Cape, Gauteng, Mpumalanga, North West and Limpopo. On-site observations and document analysis were also used to supplement information gathered from interviews and questionnaires. The study revealed that poor record keeping in the local government sector and lack of interest from the public archivists and records managers, resulted in unreliable information to provide evidence,

accountability and transparency. The study encouraged proper record keeping by public archivists and records managers for government accountability and service delivery.

Cordis and Milyo (2013, 128) credited the availability and access to reliable administrative records as a breakthrough in providing evidence on corruption cases committed by federal officials and politicians in the United States. The study by Cordis and Milyo (2013) sought to highlight unreliability of other evidence sources used in corruption cases and to promote administrative records as reliable sources. The authors found that federal administrative records provided more reliable and detailed evidence compared to annual reports submitted to the United States Congress by the Public Integrity Section of the Department of Justice.

A study by Momoti (2017) though focusing on the records management function, shed some light on the use of records for decision-making in a public university. The study used a qualitative case study research design and collected data through an electronic survey, face to face interviews and document analysis. The e-mail survey was sent to thirty-seven purposively selected staff, composed of twenty Records Management Coordinating Committee members, eight senior managers; five administrative managers; and four chairpersons of academic departments. Interviews were conducted with ten purposively selected respondents from academic, administrative and technical departments. The study revealed that some senior managers consulted other sources of evidence for decision-making, for example, professional literature. Some senior managers however, used records such as meeting minutes and case files for decision-making and planning at the university. The use of records, however, was minimal due to limited knowledge and awareness of the records management function by senior managers and unsound records management practices. The study recommends a marketing strategy and user training to improve institutional perceptions on the records management function to increase usage of records as sources of evidence for planning and decision-making. In line with recommendations posited by Momoti (2017, 69) as well as Momoti and King (2019, 90), an analysis of literature on records management training to increase knowledge and use as sources of evidence was conducted. The recommendation is in line with Banks (2009); Segone (2009) and the Continuum Model of Evidence Use, that knowledge of evidence increases its use.

2.5.1 Records management training for decision-makers

The previous sections have stressed the lack of knowledge and skills among senior managers as one of the causes of minimal usage of evidence for decision-making. Training was therefore recommended. This section reviews literature on records management training for senior managers to improve awareness and use of records. Due to shortage of literature on this theme, studies on training on use of evidence generally were reviewed to highlight the importance of knowledge and skills for EBDM.

HakemZadeh (2015, 10) stated that another focus of the literature on evidence-based management is educating managers. HakemZadeh (2015, 6) as well as Stonebraker and Howard (2018, 113), found that poorly supported decisions were caused by incomplete information due to lack of access and use skills. Decision-makers therefore, needed training guidance on how to make decisions based on reliable evidence. HakemZadeh wrote a doctoral dissertation in 2015 to enhance the quality of managerial decisions through evidence-based management (EBMgt). The author reviewed evidence-based management literature and found out that there was no proper definition of evidence and an agreed theory and framework of evidence. The study concluded by providing a definition of evidence in the management context; guidance on how evidence should be reviewed and evaluated; and proposed an EBDM model. Kyobe, Molai and Salie (2009, 13) posited that much can be achieved through proper education and regular training to provide records management awareness. Ngoepe (2008, 73) and Franks (2013, 238) added that education plays an important role in updating knowledge and skills. The responsibility of educating all staff lies with archivists and records managers, however, studies on records management training for all staff including senior managers were not found. Most studies focus on training of records management, administrative and registry staff (Asogwa 2012; Marutha 2011; Marutha 2016; Momoti 2017; Ngoepe 2008).

User training to improve access and use of records was recommended in a study by Osunrinde and Tihamiyu (2017). The study investigated types of information needed by managers for decision-making, how the information was identified, acquired, and used for decision-making. Like Momoti (2017), Osunrinde and Tihamiyu (2017) used a survey to collect data. Two hundred and nineteen randomly selected managers from member institutions of the Nigerian Institute of Management, were the study

sample. The member institutions were from both public and private sectors, such as banks, telecommunications, insurance, investment and health (Osunrinde & Tihamiyu 2017, 3). The authors found that managers often used records among other sources of information, such as minutes of meetings and discussions within their organisations for decision-making. Managers however seemed to lack skills to evaluate reliable information. The authors stated that such skills were necessary due to information overload and because decision-making involved accessing and using information from reliable information sources (Osunrinde & Tihamiyu 2017, 8). Information literacy was recommended to develop manager' skills in identifying and evaluating information.

The non-availability of studies on records management training and programs for senior managers presents a gap in the records management literature and a possible research avenue for records management scholars. The following section presents an analysis of literature on service delivery improvement programs implemented by consulting records as evidence for decision-making.

2.6 Service delivery improvement programs implemented due to use of records for EBDM

Erima and Wamukoya (2012, 25) posit that an essential characteristic of a record is that it provides evidence of some activity. Shepherd and Yeo (2003, 4) add that records enable decision-making to be made and actions taken. Kemoni (2008) assert that records are required for consistency in decision-making for providing effective service to citizens and achieving greater efficiency. The literature reviewed in the previous section shows that records are one of the sources of evidence for EBDM. This section was an attempt to review literature on service delivery improvement programs implemented due to use of records as evidence. However, literature was not found, except for a book by Barends, Rousseau and Briner (2014) which provided some insight. The authors show how evidence from organizational records and staff saved a regional office from closure. Records such as customer satisfaction surveys, time and financial sheets proved that closing the regional office would have negatively affected the company and led to loss of clients. Customer satisfaction survey records showed high percentages of customer satisfaction and that customers were satisfied with the regional

management. The management board of the company decided not to close the regional office. Boulle et al. (2015) evaluation of the Early Childhood Development program, showed that evidence from organizational records such as organizational structure, reports, legislation can be used as evidence in evaluations. The scarce literature on the subject in a way resonates with Head (2010, 82) and Head et al. (2014, 92), that the importance of other sources of evidence need to be investigated to broaden the scope of evidence.

2.7 Chapter conclusion

The literature review set out to analyse studies on EBDM, its knowledge and understanding by decision-makers; sources of evidence; the use of evidence for EBDM; channels for accessing evidence; use of records for EBDM; and service delivery improvement programs implemented due to use of records. The studies revealed that EBDM in public administration may not have originated from evidence-based medicine as previously believed by some scholars. Instead, it was implemented some centuries ago, but named differently. EBDM implementation was found to depend on socio-political conditions of countries; evidence knowledge and awareness by decision-makers; availability; authenticity and reliability of evidence. The need for up-skilling of decision makers in evaluating and assessing evidence to improve knowledge was highlighted. The literature revealed that South Africa, compared to other countries, was found to be taking strides in implementing EBDM but relationships between decision makers and researchers tended to hinder its maturity. Various sources including scientific, organizational, experiential and stakeholder evidence were revealed, and authors advised that all available sources should be consulted for decision-making and the best source used. The review discovered a few studies on the use of records as evidence amid the numerous studies on the care and management of records. In addition, a few studies were found which highlight service delivery programmes implemented due to the use of records as evidence for EBDM. The following chapter discusses EBDM and records management models and theoretical frameworks. Additionally, the rationale for the ones selected to frame this study is provided.

CHAPTER THREE

THEORETICAL FRAMEWORK

3.1 Introduction

The previous chapter reviewed literature that provided a background and understanding of evidence-based decision-making (EBDM), its origins in public administration, and the use of records as evidence. The literature review uncovered that EBDM in public administration is based on the constructs of EBDM in health and that there is no consensus of what constitutes evidence. To address the situation, some scholars such as Banks (2009) and HakemZadeh (2015), developed EBDM models and theories to explain evidence use in public administration and management sciences. In support, McKemmish and Gilliland (2013) posit that research ensures growth of any field because it builds theories and models that provide frameworks for practice. Theories are therefore valuable for explaining and understanding fields of study (Babbie 2017; Bryman 2012; Kalusopa 2015).

In archival science, the terms model, theory and framework are used interchangeably (Abuki 2014; Rodrigues 2016). However, Adom, Hussein and Agyem (2018) as well as Ngulube, Mathipa, and Gumbo (2015), argue against interchanging the terms because of the different purposes they serve in research. Upward (2000, 115) explains that “models are ways of seeing things, their acceptance depends upon how much contact they make with the practical consciousness of those who undertake tasks that are considered to be part of that activity”. Karabinos (2015) adds that models simplify complex ideas and visualize them in a way that is recognizable and appealing. Models are among the building blocks of theory (Ngulube, Mathipa, & Gumbo 2015).

Theories explain the phenomena to be studied to extend existing knowledge (Adom, Hussein & Agyem 2018). A research framework is a structure that supports a study and may be theoretical or conceptual. A conceptual framework is the researcher's own constructed model and is used in qualitative studies because it is aimed at developing a theory, while a theoretical framework, on the other hand, is in the

form of an existing model, and suitable for quantitative studies because it is used to test theories (Adom, Hussein & Agyem 2018). A theoretical framework, therefore, is based on existing theories and assists researchers to plan how the study will be conducted; structure a study to give it focus; design the questions; and frame the study in so much that it is understandable to readers (Ngulube, Mathipa, & Gumbo 2015). Simply put, using a theoretical framework is similar to borrowing a plan to build your own house (Adom, Hussein & Agyem 2018). The authors stress that researchers should describe the theoretical framework they have chosen, its origin and justification of its choice. This chapter thus presents the theoretical frameworks of the study, the Continuum of Evidence Use as well as the Records Continuum Model (RCM). However, before an in-depth discussion and justification of the models, the chapter provides context by giving a brief overview of some EBDM models as well as those of archival science. The exposition is to show why the Continuum of Evidence Use and the RCM were the preferred choices. The chapter concludes with a summary of the discussions and highlights justification and suitability of the selected models to guide the study.

3.2 Evidence based decision-making models

As briefly outlined in the preceding section, there is no clear definition of what constitutes evidence, nor a systematic framework to guide managers in accessing and using reliable evidence (Baba & HakemZadeh 2012). As a result, Pullin and Knight (2003) among other scholars, adopted an EBDM model from medicine and public health sectors to address this gap. However, the differences between the types and use of evidence in medicine and public administration led to the development of public administration and management specific EBDM models as discussed in the following sub-sections.

3.2.1 Maxim, Garis, Plecas and Davies (2015) EBDM framework

EBDM is a framework for assessing evidence that an organization is doing the right things in the right ways (Maxim et al. 2015). The authors argue that governments are increasingly faced with deploying services under tight financial constraints. At the same time, service delivery decisions are scrutinized by politicians and the public. Government leaders, therefore, need to make transparent and justifiable decisions. EBDM is a solution because it is a transparent tool that helps organizations become more

effective in decision-making since decisions are supported by evidence. The authors posit that good evidence-based decision-making must be aligned to an organisation's plans because plans set priorities; influence evidence-based decision-making; and affect an organization's ability to fulfill its mandate. Evidence is thus needed to make decisions and assess the likely impact and effectiveness of the decisions. The best available information generated through research, experiments, observation, administrative records and other reliable sources, influence the creation of the best decisions and policies.

According to Maxim et al. (2015), the organisation's internal and external environments play a role in determining actions that need to be taken. Constant monitoring of environmental changes is therefore vital. Figure 3.1 is the researcher's illustration of the authors EBDM framework

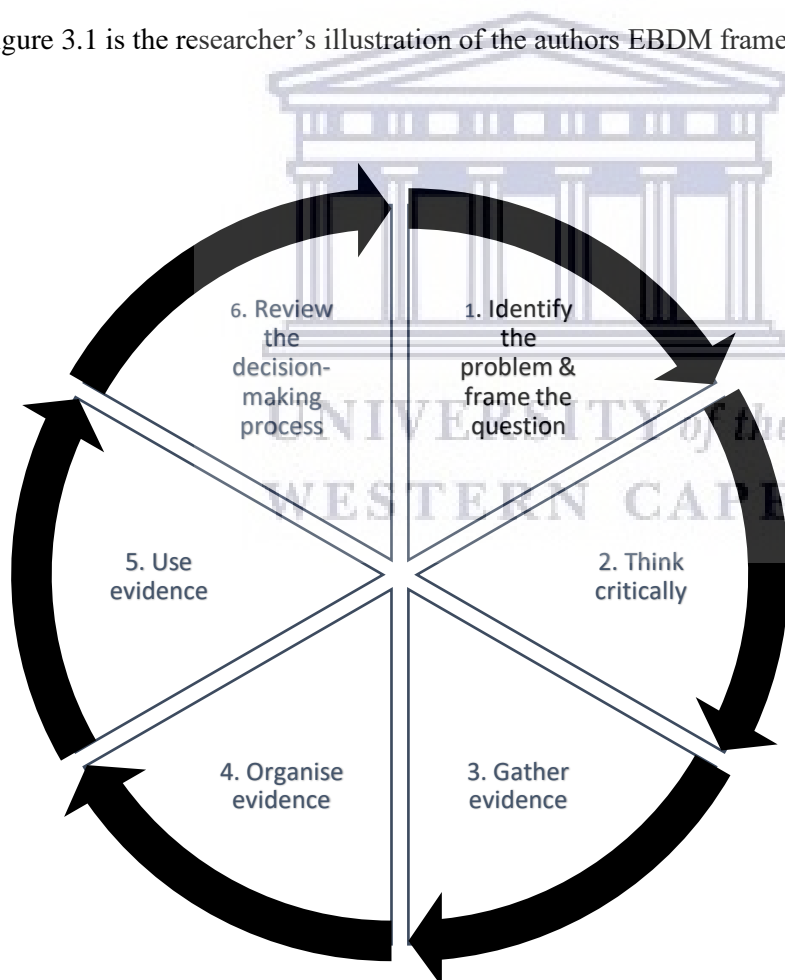
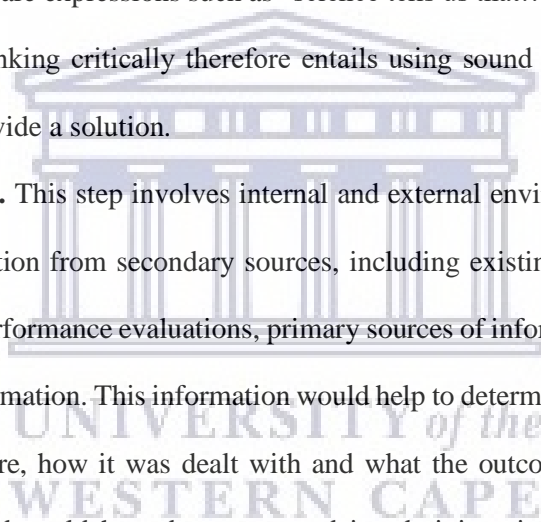


Figure 3.1: EBDM framework (adapted from Maxim et al. 2015)

The framework shows that the use of evidence is continuous and encourages regular evaluation of previous decision's performance as well as its environment, because of political, economic, and social changes governments are subject to. The five steps of the framework are:

1. **Identify the problem and frame the question.** This step involves identifying what the problem is, what the decision to be made is, its purpose, and whether it is aligned to the strategic direction of the organisation. Aligning a problem with the organization's strategic plan provides decision makers a way of justifying decisions and of clearly articulating the problem. When a problem is clearly articulated it results in good decisions (Maxim et al. 2015, 18).
2. **Think critically.** The authors posit that evidence and data alone are not enough for good and useful decisions, nor are expressions such as "science tells us that..." or "this has always been done this way". Thinking critically therefore entails using sound logic, that is facts that are relevant and can provide a solution.
3. **Collect information.** This step involves internal and external environmental scanning, which is gathering information from secondary sources, including existing research reports, journal articles, statistics, performance evaluations, primary sources of information from individuals or groups, or other information. This information would help to determine whether such a decision had been taken before, how it was dealt with and what the outcomes were. In addition, the service delivery need could have been captured in administrative records such as meeting minutes. The records would therefore serve as evidence.
4. **Organise the evidence.** This step involves analysing collected information, organizing it systematically for easy access as well as for future reference, and selecting the best reliable evidence.
5. **Use the best reliable evidence.** This step is the substance of EBDM, that is, using the best available research and information on the outcomes of government policies and services.
6. **Review the decision-making process.** This step is to determine whether the decision was effective, lessons learnt from the decision-making process, and how the process could be improved.



The weakness of this framework is that decision makers must find and organise the sources of evidence. Some decision makers, however, may neither possess information seeking skills, nor have the time and budget to do so. Some sources of evidence may be overlooked, resulting in poorly informed decisions. Despite the shortcomings of the model, Cohen and Garis (2015) capitalized on its strengths and used it as a framework to develop an information portal for the Canadian police services. Additionally, Di Nota et al. (2021) used Maxim, Garis, Plecas and Davies EBDM framework to influence evidence-based design of visual models for the Police Use of Force decision-making. Di Nota et al. (2021) support the framework due to the increasing adoption of evidence-based practices by police in North America.

3.2.2 Rational decision-making model

In rational decision-making, managers use facts; information; analysis; and a step-by-step procedure to make decisions, as opposed to intuition (Uzonwanne 2016). In addition, decision makers evaluate a few possible substitutions before selecting a choice. Rainey, Ronquillo and Avellaneda (2010), highlight the following components of rational decision-making, namely, that decision makers know the problems and all relevant goals clearly; can prioritize them; and examine all alternative means of achieving goals. Each alternative is objectively evaluated with respect to its chances of achieving the desired objectives cost-effectively, and the alternative most likely to achieve these objectives is selected and then implemented. The results of the decision are monitored and evaluated to determine success of the course of action taken. If the results are unsatisfactory or did not yield the expected results, the process is started again. Figure 3.2 shows the step by step procedures of rational decision-making

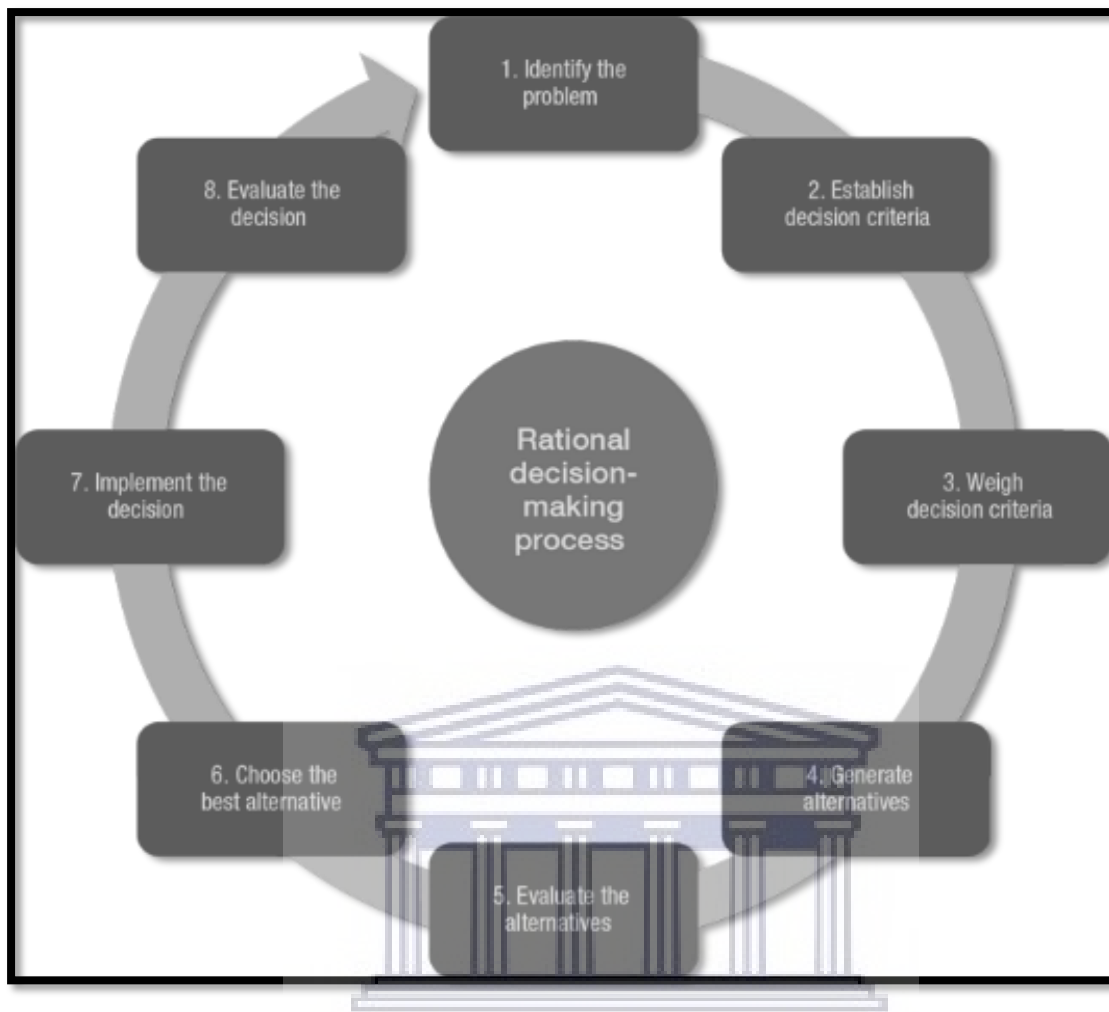


Figure 3.2: Rational decision-making model (adapted from Rainey, Ronquillo and Avellaneda 2010)

The steps presented by the model are explained as follows:

Step 1: The problem and its causes are identified. The current and desired state are clearly defined, because without a clear understanding of the problem, the decision maker may do too much or too little to solve the problem.

Steps 2 to 6: decisions are well thought, and the best information used. Decision-making is presented as a continuous cycle, in which the decision is evaluated (Step 8) after implementation (Step 7).

Leoveanu (2013); Rainey, Ronquillo and Avellaneda (2010); as well as Simon (1979), caution that the rationality model has its limits such as significant effects of political behaviour on the decision-making process; information overload or lack of information; time constraints to evaluate all alternatives thus leading to sub-standard decisions; ability of decision makers to search for the right information to use;

and ability to comprehend the true nature and complexity of the problems to be solved. However, the model has been used in numerous studies, for instance, Lester (2020) and Simon (1979).

3.2.3 HakemZadeh EBDM Model (2015)

HakemZadeh (2015) acknowledges the rational decision-making model but argues that it has not been successfully applied in organisations. HakemZadeh (2015) proposed a theory of evidence to address the challenge of a lack of a proper definition of evidence. The proposed theory of evidence focused on generation and evaluation of evidence. The author developed an EBDM model to guide how evidence is transformed into management decisions (HakemZadeh 2015). According to the author, the rationale of this model was that evidence is useful if it has been evaluated and relevant to the context where it is to be used. The model focuses on the use of research evidence and posits that the type of evidence a manager would use depends on their level of education, knowledge and exposure to the best available evidence, experience in identifying, evaluating, and accessing evidence that works. Incorporation of that evidence in decisions is influenced by three elements, namely, context; managerial preferences and values; as well as stakeholder preferences and values. The last phase of the model suggests that ethical constraints may influence whether evidence should be incorporated in the final decision. The model suggests that evidence-based decision-making is viewed as a fluid process through which evidence is obtained, interpreted, and used for decision-making (HakemZadeh 2015). The EBDM model's effectiveness however has not yet been tested and no literature was found that used the model as a framework. In addition, the researcher noted that the weakness of the model lies in its focus on the use of scientific research only, which could limit its use for studies focusing on other sources of evidence. Figure 3.3 explains the model:

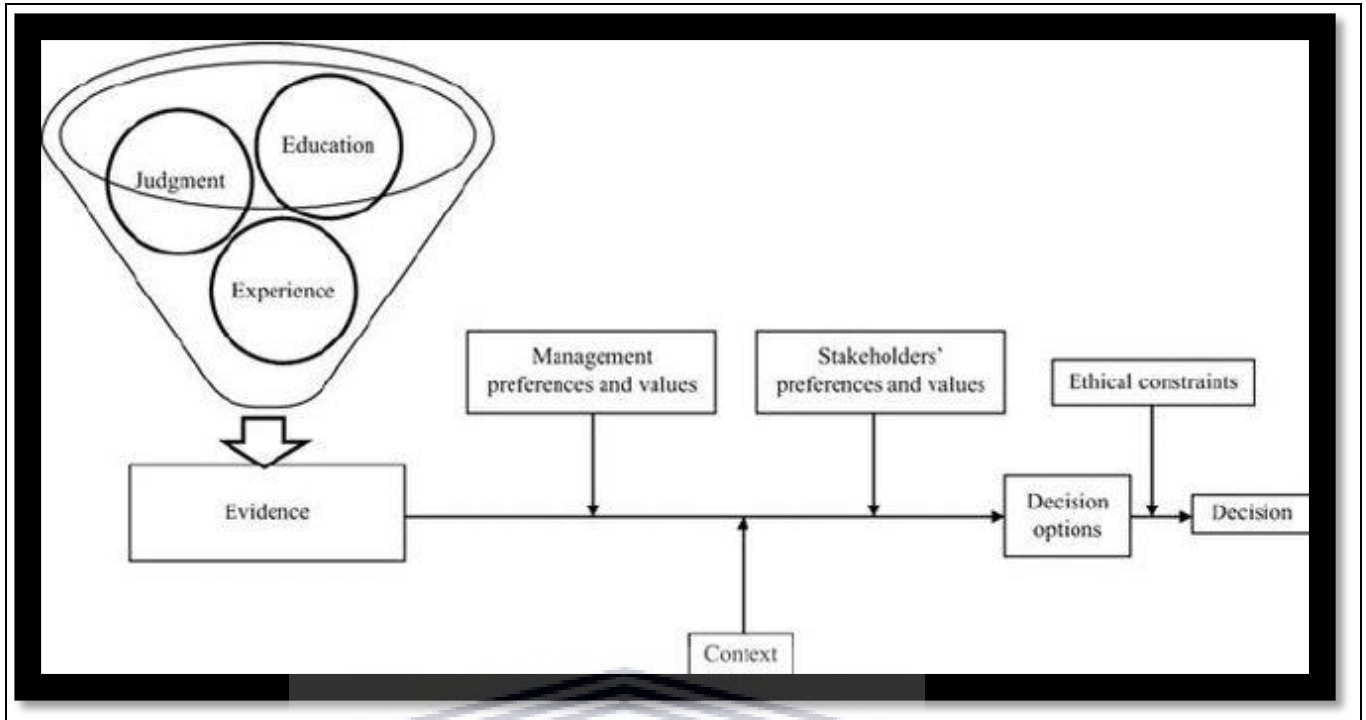


Figure 3.3: Model of evidence-based decision-making (Baba & HakemZadeh 2012)

3.2.4 Boulle, Davids, Mabogoane and Goldman's Model (2015)

The model introduced by Boulle et al. (2015), discussed in detail in Chapter Two, was closest in relevance to this study since it highlights the types of evidence used in each policy-making stage in a South African national government department service delivery program. Despite the model's relevance to the study, the researcher concluded that it could be used to guide EBDM implementation in governmental bodies but not as framework for this study. This study sought to highlight the use of organizational records as evidence, which Boulle et al. (2015) model could not clearly articulate. The authors were aware of the short-coming and stated that "ongoing management information, which is low cost, is a key source of evidence that is often ignored and needs to be better integrated into the policy making process" (Boulle et al. 2015). Furthermore, the researcher found no studies that used the model. The EBDM models discussed in the previous sections show some similarities which highlight that decision-making is aligned to policy making processes and organizational goals. Some however concentrate on the use of scientific research while others encompass a mixture of sources of information. For this reason, none of the models could be used to frame the current study. A relevant

EBDM model was posited by Nutley, Walter and Davies (2007) and was selected for this study as discussed in the following section.

3.2.5 The Continuum Model of Evidence

The Continuum Model of Evidence Use is adapted from evidence-based decision-making scholars Nutley, Walter and Davies (2002, 2003, 2007). Unlike the previously discussed EBDM models and frameworks, the authors acknowledge the use of other sources of evidence other than research. The authors posit that decision-makers understand the use of evidence variably. For example, to some decision makers, the use of evidence means being aware of the evidence, knowing and understanding it as well as changing the way of thinking (conceptual stage). While to some, it is the actual application of evidence to decisions and successful implementation of a policy (instrumental stage). The use of evidence therefore may move from one stage to the next depending on the level of knowledge and understanding by decision makers. The Australian Bureau of Statistics (2010, 3) and Stuart (2012, 3) support this notion by positing that EBDM is not once-off but a continuum of stages of which knowledge, understanding values, beliefs and ideologies are contingent for evidence use in policy and decision- making.

Chapter One revealed that EBDM became prominent in 1997 in the United Kingdom. The Continuum Model for evidence use emanates from reviews of initiatives implemented after EBDM resuscitation, which were attempts to demonstrate how public policy and professional practice are better informed by evidence in the United Kingdom. The review reports were published in 1999 and 2000 (Nutley, Davies & Walter 2002) and in 2007 by Nutley, Walter and Davies (2007). Lessons learnt from the initiatives influenced the constructs of the Continuum Model of Evidence Use which are requirements for improving evidence use. The constructs are EBDM knowledge; what counts as evidence; the use of evidence; wide access to evidence; initiatives to ensure evidence informs practice. These constructs framed this study. The Continuum Model for Evidence Use is presented in Figure 3.4, thereafter, the model constructs are discussed:

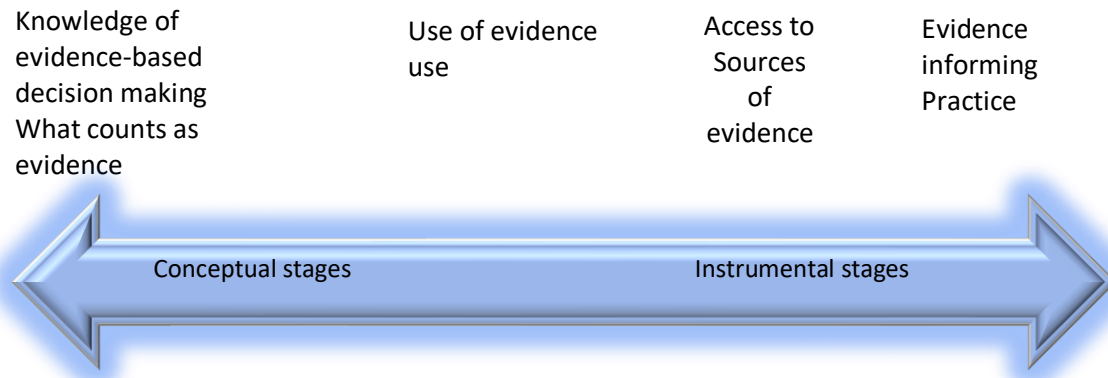


Figure 3.4: A continuum model of evidence use (adapted from Nutley, Walter & Davies et al. 2007, 51)

3.2.5.1 Knowledge of evidence-based decision making

Evidence-based decision-making (EBDM) has been described as a process in which the best available evidence is used for making decisions or influence policy. In Chapter Two, the literature revealed that knowledge, awareness and understanding of EBDM has been found to be a salient factor for its implementation. Key to EBDM implementation is knowledge of what counts as evidence, however, as the literature revealed, decision-makers use evidence sources they trust and are familiar with. The knowledge of EBDM construct argues that there has to be an agreement on what counts as evidence (Nutley, Davies & Walter 2002). In other words, other sources of evidence should be acknowledged. Of course, the literature, such as, Head (2014); Jennings and Hall (2012) revealed various sources of evidence. Equally in one of the reviews, Nutley, Davies and Walter (2002) discovered organizational knowledge, practitioner knowledge, user knowledge, research knowledge and policy community knowledge as sources of evidence for decision making. However, some challenges have been noted by Nutley et al (2002), such as how assessment and evaluation of the other sources of evidence other than research will be done. Additionally, a study by Stevens (2011) noted that although other sources of evidence were discovered, their use was highly influenced by politics and that Nutley, Davies, Walter (2002, 2007) do not provide an analysis of how this can be addressed. Nonetheless, knowledge of EBDM was found to be useful in determining the knowledge and understanding of EBDM as well as sources of evidence available and used by senior managers in Western Cape governmental bodies.

Knowledge of EBDM would standardize its implementation, more so, that it has been discovered to be still at infancy stage in the provinces (Marais & Matebesi 2012).

3.2.5.2 Use of evidence

The use of evidence to inform professional practice has become a major concern in the public sector (Nutley, Walter & Davies 2003). While, what counts as evidence is central to its use, there is acknowledgment that evidence is used in different ways by different role players. For instance, administrative records, performance evaluations and statistical reports were found to be mostly used by government decision-makers (Marais & Matebesi 2012). Additionally, the literature revealed that evidence use differs from country to country, for instance in some countries such as Australia there is political support for evidence use, while in some there is none (Banks 2008; Segone 2009, 22). Literature revealed that politics can be a barrier to using research evidence in provincial government departments along with other barriers such as lack of research capacity; funding for research; and strained relationships between provincial departments and research institutions and universities (Marais & Matebesi 2012). The Continuum Model of Evidence Use makes a distinction between the instrumental use of research, which results in changes in behaviour as well as informs practice, and conceptual research use, which brings about changes in levels of knowledge, understanding and attitudes. The instrumental use of evidence is rare (Weiss 1987), hence the construct of evidence use was found useful in guiding this study in determining the use of evidence by senior managers in Western Cape governmental bodies. In addition, the literature revealed that the use of evidence is continuous (Maxim et al. 2015) which is central to this study, albeit with specific reference to evidence from records. Interestingly, Nutley, Walter & Davies (2009, 558) discussed various models that could be applied in evidence use studies but opine that none of the models provided a solution to improve evidence use; each has its own set of assumptions and difficulties.

3.2.5.3 Access to sources of evidence

Nutley, Davis & Nutley (2003) posit that to facilitate adoption and use of evidence, one of the strategies is its wide dissemination in various mediums such as systems that promote and deliver evidence use.

Recent developments in ICT, use of the internet and proliferation of social media enable access to a wider audience (Nutley, Boaz, Davies & Fraser 2019,12). The development of multiple channels of communication to disseminate evidence could improve its use (Nutley & Davies 2000). Wide dissemination of research evidence could involve circulating or presenting research findings to potential users in formats which may be tailored to their target audience (Nutley et al. 2019). In the case of access to organizational evidence, barriers were attributed to poor records management which includes storage and access. It was discussed in Chapter One that proper records management processes improve availability and access to records. The access to sources of evidence construct was found valuable in determining access channels or mediums used by senior managers in Western Cape governmental bodies.

3.2.5.4 Evidence informing practice

This construct is based on the premise that evidence is always inextricably intertwined with the actions, interactions and relationships of practice. In other words, identifying initiatives or programs which were informed by evidence. As mentioned in 3.2.5, the constructs of the continuum model of evidence use were drawn from review of initiatives and programs informed by evidence. While this construct referred to use of research evidence *per se*, it was found relevant to guide this study in determining service delivery programs informed by evidence from records.

Most of the studies which used the Continuum Model for Evidence Use are mostly by Nutley and some colleagues, for instance, Nutley et al. (2019); Nutley, Walter & Davies (2009); Nutley, Davies & Walter (2003). The authors supported the constructs of the model and found them to be most appropriate to study evidence use than other models. The weakness of this model is its focus mostly on research evidence, despite the acknowledgement of other sources of evidence. Nonetheless, the model compared to other EBDM models was found suitable to frame this study. However, because this study focused on the use of records as sources of evidence, the researcher found it beneficial to augment the Continuum of Evidence Use with an Archival Science model, the Records Continuum Model. The discussion of

the following sections gives an insight into Archival Science models and why the RCM was considered the best model for this study.

3.3 Archival Science Models

This section provides insight into the theoretical foundations of archival science within which this study is embedded, in order to understand the choice of the theoretical framework of this study. In the discussion it will be noted that most of the models originate from Europe and Australia and have evolved over the years. From this perspective, Ngoepe (2014) and Schellnack-Kelly (2013) suggest that South African archivists and records managers need to select and implement appropriate models to suit and address the various records management challenges in South Africa. Nevertheless, the various archival models are presented for context.

3.3.1 Archival theory

The term theory in Archival Science is understood differently by many scholars. Livelton (1991) for example posits that theory refers to archivists understanding of the purpose and meaning of their field. Duranti (1994) explains that archival theory is about what archival materials are, whereas archival methodology is about how to treat them, and archival practice is archivists' application of both theoretical and methodological ideas in their work. Ketelaar (1996) adds that archival theory and archival practice are linked together by archival methodology, the three together constitute archival science. Livelton (1991) on the other hand argues that archival methodology is derived from archival theory. Ncala (2017) notes that theories for managing information are diverse and archival models focus in ensuring an authentic and useable record.

In the United Kingdom, archival theory is believed to have been introduced by Jenkinson (1922). However, scholars such as Duranti (1994) and Procter (2008), dispute this notion and posit that there had been contributions by other scholars to archival theory before Jenkinson. Duranti (1994) for instance asserts that archival concepts are rooted in Roman law. Ketelaar (1996) considers the General

State Archivist of the Netherlands (1887-1912), Theodoor Van Riemsdijk (1885), to have developed archival theory as early as the 1870s. Van Riemsdijk's theory was codified as a methodology in Muller, Feith and Fruin (1940) *Manual of arrangement and description of archives*. Van Riemsdijk (1885), however, focused on the record creating process and their use by their creators instead of how they might be used in future (Ketelaar 1996). Shedding some light into archival theory before Jenkinson, Procter (2008) identified and described the categories which formed the theory as summarized in Table 3.1:

Table 3.1: Pre Jenkinson archival theory (Procter 2008)

Category	Description
Nature of archives and the qualities of records	The definition of archives and records evolved through the years and a proper definition of a record was presented 1835 while a description of archives was published in 1919.
Appraisal and disposal of records	The need to appraise records during their early stages of existence to identify those with archival value, was identified but not formalized. Disposal instructions were introduced.
Arrangement and classification – and the importance of context	Classification of records according to provenance and original order to facilitate access was introduced and a document 'Principles of arrangement' developed.
Custody of records	The continuous custody of records was considered important in determining their authenticity, evidential value, preservation of context and legal admissibility
Description and access to and use of archives	This category was to ensure proper description of records for better management, access, promotion and use. Finding aids such as were introduced.

The categories are evident in modern archival practice as elaborated by Ngoepe (2012), that archives and records are governed by the principle of respect des fond; the life-cycle model; the continuum model; and the principle of levels of arrangement and description.

While opposing that archival theory was introduced by Jenkinson, Procter (2008) agrees that Jenkinson defined and made British archival theory explicit. Jenkinson exposed his theory in the *Manual of Archives Administration*, known as the “Manual”. Jenkinson believed that archival records are the sanctity of evidence (Holmes 1961). The “Manual” explains what archives are and provides guidelines on their management and preservation to uphold their evidential value. Jenkinson explained that:

“we have documents which are material survivals of certain administrative or executive transactions in the past, preserved for their own reference by the responsible persons concerned, they are first-hand evidence, because they form an actual part of the corpus, of the facts of the case. Archives are documents which formed part of an official transaction and were preserved for official reference” (Jenkinson 1922, 4).

Upward (1996) revealed that Jenkinson wrote of moral defence, physical defence, and the chain of custody of records. While the researcher acknowledges early archivists’ rich contribution to archival science by stressing the evidential nature of records, they focused on the management, care and preservation of records to maintain their evidential value, whereas this study investigates their use as sources of evidence.

3.3.2 Diplomatics Theory

Archival practice has been largely influenced by among others, the diplomatics discipline (Gillilan-Swetland 2000). Diplomatics is the critical study of written evidence to ascertain its authenticity, validity, authority, and context and relevance (Duranti 1989). Diplomatics thus provides a theoretical foundation for records management (Duranti 2010, 79). The author, however, advises that researchers should avoid confusing classic and modern diplomatics, because they are not the same nor does one

evolve from the other. The author explains that classic diplomatics is the retrospective analysis of legal records, such as medieval charters, instruments, and deeds, to establish their trustworthiness, while modern diplomatics on the other hand, incorporate some concepts of classic diplomatics into archival theory, thus developing archival diplomatics. Archival diplomatics, therefore, studies the origins, forms, and transmission of archival records, and their relationship with their creators and the facts represented in them to validate their identity (Duranti 1989). Furthermore, Duranti (2010); Duranti and Jansen (2017) as well as Mosweu (2018), explain that archival diplomatics accommodates the management of new record types, such as digital records and preservation of their authenticity and trustworthiness as evidence. The thrust of archival diplomatics is in support of the need for best available evidence, which resonates with EBDM. The best available evidence according to Duranti (1994), refers to original records or authenticated duplicates. Archival institutions, therefore, must guarantee the continuity, authority and reliability of records after they cease to be used in business (Upward 1996).

Archival diplomatics provides valuable insight in identifying, examining and maintenance of the authenticity of evidential sources but like early archival theories, focuses on management and preservation of the record, which is not the scope of this study. McKemmish & Gilliland (2013) posit that the archival diplomatics is applicable to the analysis of changes and continuity in document forms over time; identification of record types in electronic systems as well as requirements for preserving reliable, authentic records in electronic and digital systems. While its usefulness in authenticating records, the Diplomatics theory was not found useful for this study.

Scholars such as Kemoni (2008); McKemmish & Gilliland (2013) as well as Ngoepe (2008) note that there is a growing amount of archival theories and models but consider the records life cycle and records continuum models as the dominant ones. The following sections presents the two models.

3.3.3 Records Lifecycle Model (RLM) or Life Cycle Model(LCM)

Billesberger (1990, 21) asserts that the most commonly used model in records management is the Records Lifecycle Model (RLM) and that it provides a basis of concepts and techniques of the discipline. In support, Ngoepe (2008) and Kemoni (2008) posit that RLM upholds an integrated approach hence its popularity in public institutions, more so in South African ones (Kemoni 2008).

The RLM was developed in the United States of America in the 1930s by the National Archives and Records Administration, as a records management framework to handle the increasing volume of records produced by organizations (Kemoni 2008). The model became predominantly popular among North American archivists (Kalusopa 2011). The RLM considers a record to have a lifecycle like that of a biological organism, which is born, lives and dies. Similarly, a record is created, used for as long as it has administrative value, and disposed by destruction or transfer to an archive, therefore, may not be used at some stage in its office of origin (Billesberger 1990; Luyombya 2010; Millar 1999). Giving insight, Ncala (2017) explains that in the RLM, after the intended use is satisfied, records are either re-used, preserved or disposed of. The creation, receipt and use therefore, are the primary stages of the record's life, while preservation in an archive is its secondary one (Luyombya 2010). The Records Lifecycle Model is demonstrated in Figure 3.5.

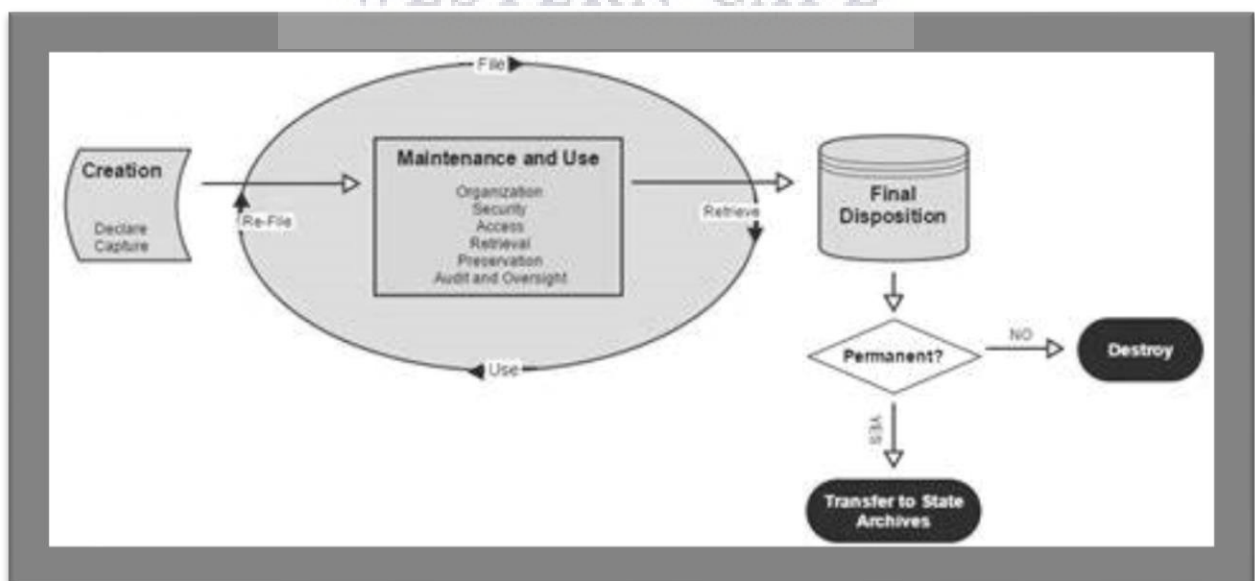


Figure 3.5: Records Lifecycle Model (courtesy of Utah State Archives and Records Service 2020)

The life stages of the RLM are current, semi-current, and non-current as explained in Table 3.2:

Table 3.2: Description of the stages of the Records Lifecycle Model

Life stage	Description	Storage area
1. Current (Creation)	At this stage, records are created presumably for a legitimate reason and according to certain standards; regularly consulted and used during the conduct of current business activities	<ul style="list-style-type: none"> • Ideally in a Registry • Office of origin
2. Semi-current (Maintenance and use)	Records are still consulted and used during the conduct of business, but not regularly. At this stage, records are stored logically for easy retrieval. The records are put in storage equipment, protected and maintained to safeguard the integrity of the information contained in the records.	<ul style="list-style-type: none"> • Records Centre • Commercial off-site storage areas
3. Non-current (Disposal)	Records are no longer used for the conduct of current business and are therefore destroyed unless they have a continuing value for historical or research purposes.	<ul style="list-style-type: none"> • Destroyed • Transferred to an archive after an agreed period if they are considered to have enduring value.

The RLM ensures the authenticity of inactive records and makes them the impartial sources that society needs (Bantin 1998). Importantly, the model is the basis of the definition of records management which encompasses the control of a record throughout its life stages (Kalusopa 2011). The weaknesses of the model are that it does not address contemporary needs (Abankwah 2011); separates records management and archives management professions (Bantin 2008; Cumming 2010); “holds the materials within its institution in a coma, awaiting the user to awake them from their perpetual slumber” Gauld (2010, 4); applies to paper records management than electronic ones and therefore suitable to frame studies dealing with management of paper records (Kemoni 2008; Lappin 2010); and negates the transactional and evidential nature of records (Runardotter 2007). The RLM is considered suitable for

framing studies investigating the management of paper records and therefore was not considered for this study, since the study focuses on the use of records as evidence. The weaknesses of the RLM, more especially its unsuitability to cater for electronic records management, led to the development of the Records Continuum Model (Bantin 1998; Kemoni 2008; Luyombya, 2010).

3.3.4 Records Continuum Model (RCM)

Klareld (2018) posits that archival science theoretical frameworks offer insights on how to tackle existing challenges. The RCM is one of records management' popularly used theoretical frameworks, more especially in studies focused on digital as well electronic records management, to name a few, Evans, McKemish and Rolan (2017); Gibbons (2016); Glassman (2019); Heller (2015); Karabinos (2015); as well as Nyaga, and Kemoni (2020). The intention of this section, thus, is to provide more insight into the RCM and its relevance to the study.

The RCM was developed partly as a response to the increase of electronic records through the 1980s and 1990s, which changed the way decisions were made regarding creation and preservation of records (Karabinos 2015). The RCM originates from Canada (Kemoni 2008), but was developed in Australia in the 1980s by Frank Upward (Franks 2013; McKemish 2001), and was presented by Jay Atherton at an annual conference of the Association of Canadian Archivists in 1985 (Flynn 2001; Upward 2000). The RCM considers the continuous use of records for the purpose they were created for at any point (Cummings 2010; Svard 2013). The premise of the RCM is that unlike the RLM, there are no steps in records management but a continuous and seamless flow of the elements of the continuum (Kemoni 2008). Explaining the premise, Luyombya (2010); with McCarthy and Evans (2012) posit that records are managed as a continuous process in ways that enable them to fulfil their multiple purposes over time. For instance, the RCM supports the continuities between records managers and archivists, where the two professions work alongside each other in designing systems which ensure the capture of records (Schauder & Kennedy 1996). In support, Upward (1996), asserts that the RCM unifies archiving and recordkeeping whether records are kept for a split second or a millennium, therefore the term "record"

is inclusive of both current and archival ones. The continuum approach implies the end of the traditional boundary between records managers and archivists (Nyaga & Kemoni 2020).

Another key quality of the RCM is that it draws on concepts of the evidential nature of records and archives that were developed from the late 1950s (McKemmish 2001; Cumming 2010). The RCM, thus, promotes the use of records for transactional, evidentiary and memory purposes (Kalusopa 2011; Upward 1996). The model has evolved to integrate records management with organizational business systems and processes (Franks 2013; Kemoni 2008). In addition, the RCM considers records as logical rather than physical entities, regardless of whether they are in paper or electronic form (Upward 1996). The Records Continuum Model is demonstrated in Figure 3.5.

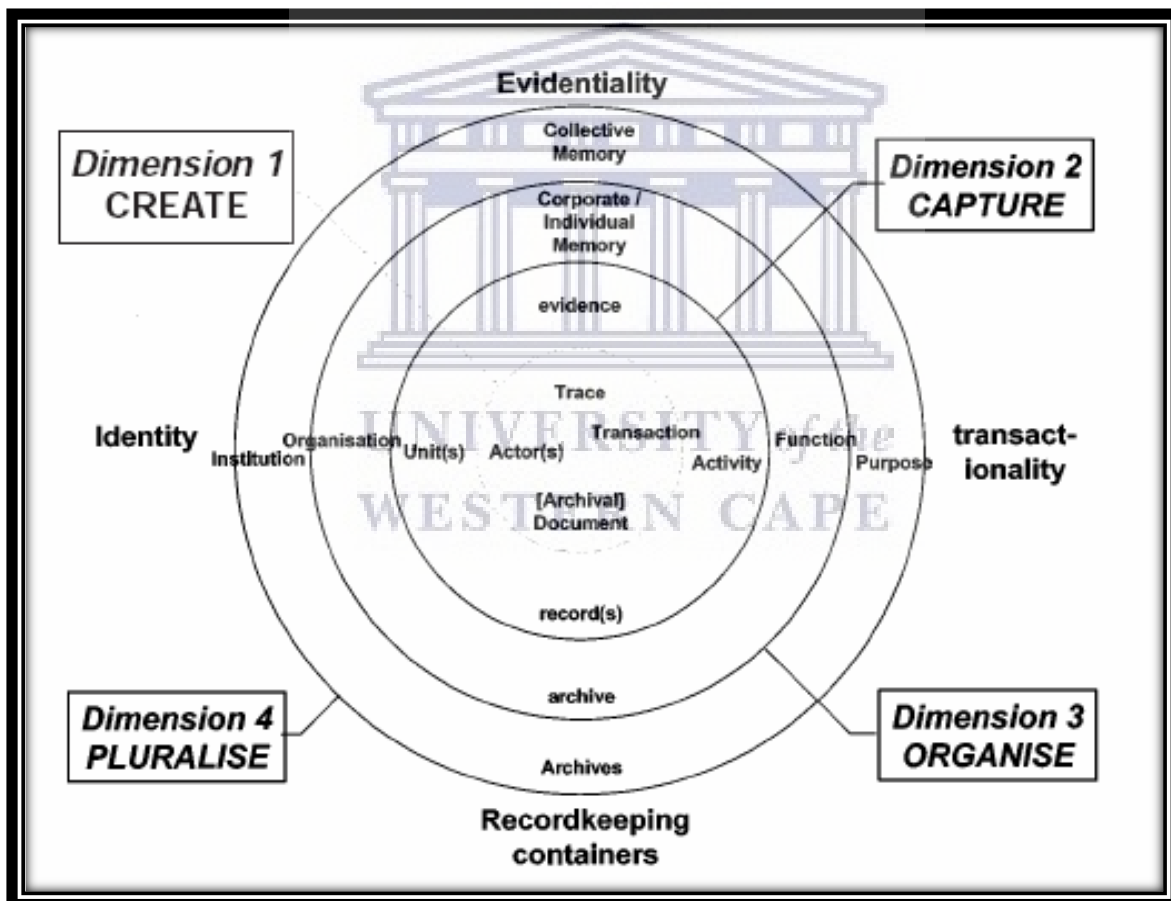


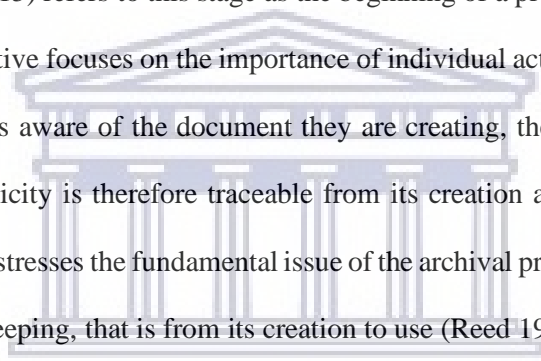
Figure 3.6: The Records Continuum Model. (Upward 2000)

Figure 3.6 shows that the RCM is built around four axes: identity, evidentiality, transactionality, and recordkeeping entity. Each axis presents four dimensions, namely: create, capture, organise, and

pluralize. Kalusopa (2011); and Upward (1996), explain that the dimensions are not boundaries such as the stages of the RLM, and that record-keeping activities occur simultaneously across the dimensions.

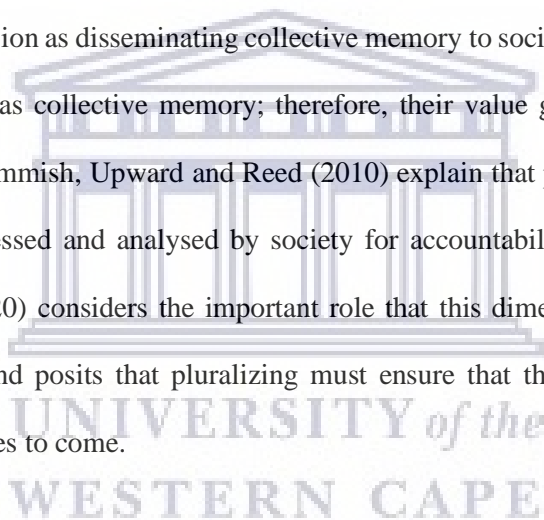
The four dimensions are:

- i. **Create** is the first dimension and occurs when information is created. Transactions occur between the author/s of a document and the systems in which the document is created. In this dimension, the author/s produce reliable and authentic records. Gauld (2010) explains that reliability of records refers to authority and trustworthiness of records as proof and memory of the activity of which they constitute the natural by-products. Authenticity on the other hand means tracing the record back to its creation to determine whether any alterations have been made. Karabinos (2015) refers to this stage as the beginning of a process that leads to a record. The creation perspective focuses on the importance of individual actions, this means that at this point, the author(s) is aware of the document they are creating, the system used and storage. The records' authenticity is therefore traceable from its creation and can be used as reliable evidence. RCM thus stresses the fundamental issue of the archival profession, that is, everybody has a role in recordkeeping, that is from its creation to use (Reed 1997).
- ii. **Capture**, the second dimension involves routine storage and linkage of documents and data in systems in ways that enable sharing and re-use in the immediate business environment or social activities within which the transactions are recorded. Records are captured in fixed form so that they can be re-produced in their 'original' form through time. Records are linked to related documents and information through metadata and keywords. Upward (2000) explains that the "capture" dimension enables use of information by groups of people. During this dimension parties involved in the creation of the record are involved and know which metadata or keywords to use to retrieve and use the record. Records can be accessed in a traditional or electronic Registry. Upward (1996) considers the second dimension crucial within the context of the RCM' support of evidence-based recordkeeping because this stage facilitates access to records through the metadata.



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- iii. **Organise**, relates to records being organised so that others not directly involved in specific business and social processes, but with oversight responsibilities, organisation-wide perspectives or stakeholder interests, can access and use what has been created and captured. Records are organised as evidence of their function and part of the role that they play in an organisation. Records are disseminated as corporate memory and information communication technologies are used to provide access to users (Luyombya 2010).
- iv. **Pluralize**, enables access and use of records by far wider audiences and beyond organizational boundaries, for example, through websites and institutional repositories. Upward (1996) describes this dimension as disseminating collective memory to society. Organizational records are used by society as collective memory; therefore, their value goes beyond the life of an organisation. McKemmish, Upward and Reed (2010) explain that pluralizing enables records to be reviewed, accessed and analysed by society for accountability and memory purposes. Frings-Hessami (2020) considers the important role that this dimension plays in embedding records in society and posits that pluralizing must ensure that the context of records meet societal needs for ages to come.



3.4. The difference between the RLM and RCM

The discussion of both models shows that the RLM played a significant role in shaping records management until the advent of digital records. One of the perceived weaknesses of the RLM and strength of the RCM is digital records management, however, there are other notable difference as explained in Table 3.3.

Table 3.3: Construction of the differences between Records Lifecycle and Records Continuum Models.

Model Aspect	Records Lifecycle Model	Records Continuum Model
Origins	Evolved from the need to effectively control and manage physical records after World War II (half a century ago)	Evolved from the more demanding need to include control and management over electronic records in the digital era
Elements of records	Physical entity definition	Content, context and structure
Major concerns in the management of records	Records-centered, focus is on records as tangible physical entities.	Purpose-centered, process and customer driven, considers records as logical organizational assets.
Records movement patterns	Time-based: records pass through stages until they eventually die (except for those of archival value); time sequence: records processes are in each sequence	Multi-dimensional: records exist in space/time not space and time; Records processes can happen at any point in the record's existence.
Recordkeeping perspectives	Exclusive, single purpose. Sequential organizational or collective memory, current or historical value.	Inclusive multiple purposes, can be organizational and collective memory, can have current, regulatory, and historical value from the time of creation simultaneously
Recordkeeping process	There are clearly definable stages which create sharp distinctions between current and historical recordkeeping.	The recordkeeping and archiving processes are integrated.
Criteria for selecting archives	Currency or historical value	Continuing value, including current and historical value.
Time of archival appraisal	End of records movement	From beginning to end
Role of records professional	Passive and reactive locked into custodial role and strategies	Proactive post-custodians: recordkeeping policy makers, standard setters, designers of recordkeeping systems and implementation strategies, consultants, educators/trainers, advocates, auditors.
Records management tasks	Things are done to the records in fixed stages, in each sequence by professional groups. Records managers and archivists have no business directing what records to create; they are relegated to receiving the physical objects once created; fragmented and disparate accountabilities of creators, users, records managers, and archivists.	Integration of business process and recordkeeping processes: the tasks can happen in almost any sequence by any professional group. Records managers are accountable for not only the maintenance, but also for the creation of evidence of an organization's purposes and function; integrated framework for the accountabilities of players and partnerships with other stakeholders

3.5. Relevance of the Records Continuum Model to the study

The premise of this study was that records management scholars had discovered that records were not used for decision-making and good governance due to poor record keeping in the South African public sector. In addition to the study premise, Ngoepe (2012) reveals that records management models used are not aligned with the strategic direction of organizations. However, records management processes in Western Cape governmental bodies seemed to be in place and aligned to with a records management model as discussed in Chapter One. This study was conducted to investigate the extent to which records as sources of evidence, were used by senior managers to support service delivery decisions in Western Cape governmental bodies. While the other models discussed in this chapter, could have supported this study, the RCM was found to be the most relevant. The following discussion motivates why the RCM constructs were found relevant to the frame the study:

a) ***RCM support the continuous use of records evidence of business activities.***

EBDM is a practice that supports the use of the best available evidence to make decisions. The best evidence is that which is trustworthy, authentic and reliable. The RCM ensures authenticity and reliability of electronic and physical records from the creation through to other dimensions. Upward (1996) explains that the evidence axis consists of the trace of actions, evidence which records can provide, and their role in corporate and collective memory. The capture dimension provides for linkage of records to other documents through metadata and keywords. Authenticity and reliability of records are therefore traceable in electronic records management systems as well. Continuous use of evidence means the evidential use of records has no life cycle, instead, the use of records continues through all four dimensions whether for internal organizational use, as corporate memory, or collective memory.

b) ***RCM is well adapted for the management of electronic records***

The move towards electronic records management by Western Cape governmental bodies (Republic of South Africa 2017b) brought forth the use of electronic records management systems to create, manage and use records. The inability of the RLM to manage electronic records management resulted in the adoption of the RCM as framework for the records management policy of the Western Cape governmental bodies. The decision of adopting the RCM was in tandem with Ngoepe's (2012)

recommendation for governmental bodies to design records management programs which would suit their organizational strategic direction. Furthermore, the RCM facilitates electronic access to records as corporate and collective memory to immediate and wider audiences through web technologies (Cummings 2010; Svard 2013). The RCM therefore facilitates continuous access and use to evidence with no geographical restrictions due to use of technologies. Western Cape governmental bodies are based in various locations throughout the width and breath of the Western Cape. The RCM and use of technologies facilitate access to evidence despite the distance. Upward (2000) correctly postulates that the model is more in tune with electronic communications and technological change. Most records in Western Cape governmental bodies however, may still be in physical format, but the RCM provides for the management and use of records in physical and electronic formats. Upward (2000) adds that the model can be used to analyze organization-wide electronic business including recordkeeping, thus integrating all business units.

c) RCM is not time nor space bound.

The RLM has been criticized for restricting the record to time and space, for example in registries, archives or offices; and can be disposed after a determined period. On the other hand, according to the RCM, records can be accessed at any point during the records management processes (Franks 2013). Unavailability and inaccessibility of records therefore cannot be hurdles for not using records as evidence during decision-making. EBDM was adopted by the South African national government and cascaded down to provincial and local governments for implementation. EBDM communication and information is available through electronic mail correspondence between the DPME, provinces and municipalities. Senior managers get to know about EBDM by accessing relevant information from external channels. In the same vein EBDM information is communicated internally within provincial departments, entities and municipalities in meetings and therefore available in meeting minutes that can be accessed in registries or intranets. EBDM knowledge therefore is created, shared and used in the immediate and environment. Access to records applies to records of other organizations that would assist in the decision-making process. Records of successful service delivery programs are created from project inception and made available widely on internal and external platforms in the form of

organizational performance information and or project reports. The RCM dimensions provide for access to records by users in the immediate environment through intranet and electronic records management systems; external targeted audiences or interest groups through extranets or portals; and to the wider audience through websites. In support Flynn (2001) states that the RCM reminds records professionals and archivists that records (including archives) are created and maintained for their users rather than just physical objects. RCM thus facilitates access to records as sources of evidence organizationally and to relevant stakeholders without space/time restrictions.

d) Integration of business and recordkeeping processes

Integration of business and recordkeeping processes implies that the objectivity, understandability, availability, and usability of records need to be inherent in the way that the records are captured (Kalusopa 2011; Upward 1996). Records are captured in the context of the actions of which they are part. Recordkeeping is not considered as an abstract activity which is the records managers' or registry clerk's responsibility, but an integral organizational activity, various stakeholders are accountable for records management. The "identity" axis specifically addresses the involvement of other stakeholders in the records management activities. Upward (2000) explains that "Identity" relates to establishing particularities of individuals involved in records creation and their identity becomes viewed from broader social and cultural perspectives. The RCM provides for records to be considered as corporate memory instead of physical entities which are by-products of organizational activities that may be useless at some stage.

3.6. Conclusion

The chapter introduced the theoretical framework of the study, the RCM. Some EBDM and Archival Science theoretical frameworks were discussed to provide context and motivation for selecting the RCM. Similarities in EBDM models were found, notably, the alignment of decision-making to policy processes and organizational strategic goals. Interestingly, the EBDM scholars concede with the lack of a proper definition or what constitutes evidence and some developed models to address this lack. The Continuum Model for Evidence Use was discussed in detail and its choice was motivated. The subject of this study lies within archival science and therefore, archival science models were discussed, and one

was selected to augment the Continuum Model of Evidence Use. Attention was paid to the RCM and its relevance to the study was presented to show how it guided the study. The following chapter presents and discusses the entire research design and methodology of the study.



CHAPTER FOUR

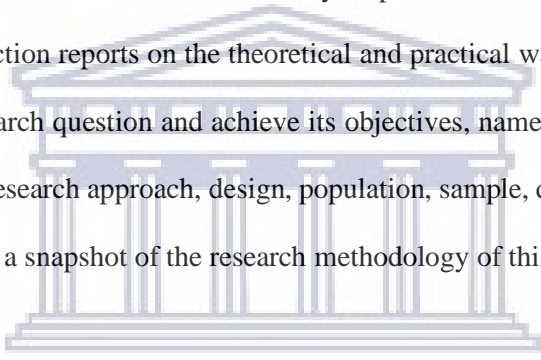
RESEARCH METHODOLOGY

4.1 Introduction

The previous chapter introduced the theoretical framework of the study and justified its choice. The relevance of the Continuum Model of Evidence Use and the Records Continuum Model (RCM) to the study was presented to show how the constructs guided the study. This chapter discusses the research process undertaken in this study. Research as explained by Leedy and Ormrod (2010), is a process of discovering the truth about something by asking a question that has never been asked and answered before; collecting; analyzing; and interpreting data in order to answer the question. Ngoepe (2012), advises that researchers must describe the methods used in a study to allow other researchers to replicate and test the methods. Babbie (2017), posits that before a study can be undertaken, the researcher must clearly specify what the study seeks to find out, why and how to do it, because research has various purposes. The purposes as exposed by Babbie (2017), are to explore (exploratory study); describe (descriptive study); and explain (explanatory study). This study was descriptive because it sought to describe the extent to which records as sources of evidence were used by senior managers in Western Cape governmental bodies for evidence-based decision-making. The quantitative approach was used for the study because of its suitability to measure variables and quantify results (Bryman 2012, 175). To justify the choice of the approach for this study, the three social science research approaches, namely, qualitative; quantitative; and mixed methods are discussed. Additionally, their ontological positions, theoretical drives, philosophical worldviews, research designs, and research methods, are discussed in this chapter. A detailed account of what motivated the selection of the quantitative approach, and how the study was conducted is presented. The reliability and validity of data collection instruments and processes are discussed, as well as evaluation of the research processes. A brief discussion on data analysis processes is presented. The chapter concludes with ethical considerations and a summary of the chapter discussions.

4.2 Research paradigms

Oliver (2008, 105), states that when reporting the research methodology of a study, the author must refer to the aims of the study to assess whether they have been achieved with the methodology deployed. The aim of this study was to test the hypothesis that the use of records as evidence in decision-making contributes to improved service delivery. The research question to be answered was, “to what extent were records as sources of evidence, used by senior managers in Western Cape governmental bodies to support service delivery decisions? The study objectives were to, determine senior managers’ knowledge of EBDM; assess whether senior managers used evidence to decide on service delivery programs; determine where the evidence was sought; evaluate the extent to which senior managers used records for EBDM; and determine service delivery improvement due to the use of records as evidence for EBDM. This section reports on the theoretical and practical ways in which the study was conducted to answer the research question and achieve its objectives, namely, its ontological position, theoretical drive, paradigm, research approach, design, population, sample, data collection and analysis methods. Figure 4.1 provides a snapshot of the research methodology of this study:



Ontological position	•Objectivism
Theoretical drive	•Deductivism
Worldview	•Positivism
Research approach	•Descriptive-explanatory quantitative
Research design	•Survey
Population	•All Senior Managers of Western Cape governmental bodies
Sampling	•Stratified random sampling
Data collection	•Self-administered online questionnaire
Data analysis	•Inferential analysis

Figure 4.1: Construction of the study research methodology

4.2.1 Ontological position

Oliver (2008, 24) advises that doctoral studies should include ontological issues because of their theoretical importance to research and that they allow the reader to understand the logic behind the choice of the research processes of the study. This study adopted objectivism because the study approach is quantitative. Balnaves and Caputi (2001, 105); Bryman and Bell (2014, 17); as well as Fouche and Delpont (2005, 73), posit that adopting objectivism implies that the social phenomena or nature of entities under study, are independent and cannot be influenced by the human mind. The role of the researcher is therefore limited to obtaining necessary data for the study. This study was conducted within the situation at the time, without influencing, manipulating or changing it. The situation was that there were existing policies, laws and regulations which govern processes and programs to be complied to by officials. The researcher operated within the conditions. One of such initiatives is evidence-based decision-making (EBDM), which is characterized by consulting various sources of evidence to make decisions for service delivery improvement. Records are one of the various sources of evidence, but researchers have lamented their minimal use for decision-making in South African governmental bodies. In addition to the situations, the personal feelings, knowledge and experiences of the researcher had no bearing on the study nor an intention to influence or change the situation within which the study was conducted (Leedy & Ormrod 2010, 21). Objective studies use the third person in singular, rather than the first person, as it is the case in this study. In addition to an ontological position, Oliver (2008, 25) states that the theoretical drive of the study must be clarified. The following section provides an explanation of the theoretical drive of this study.

4.2.2 Theoretical drive

Morse and Niehaus (2009, 41), posit that it is not possible for a study to be without a theoretical drive, since it indicates whether the study aims to confirm or discover something. The theoretical drive adopted for the study was deductivism, since it is applicable to studies where there is an established or known theory in practice, from which a researcher deduces or forms a hypothesis, tests, confirms or reject it (Bryman & Bell 2014, 9; Leedy & Ormrod 2010, 32). The afore mentioned authors supported Morse & Niehaus (2009, 42) who states that a deductive study starts with a theory or hypothesis by

testing, thus, working from the general to the particular. The known theory as discussed in Chapters One and Two, was that records are sources of evidence but were seldom used for decision-making in governmental bodies. This study was to determine the extent to which records as sources of evidence were used by senior managers in Western Cape governmental bodies. Data was collected from a large sample of senior managers, findings were analyzed, and a conclusion was reached. The hypothesis was confirmed from the findings as will be discussed in detail in Chapter Five. If the hypothesis was rejected, the theory would be revised in a separate study, and the process re-started. Figure 4.2 summarizes the deductive theoretical drive:

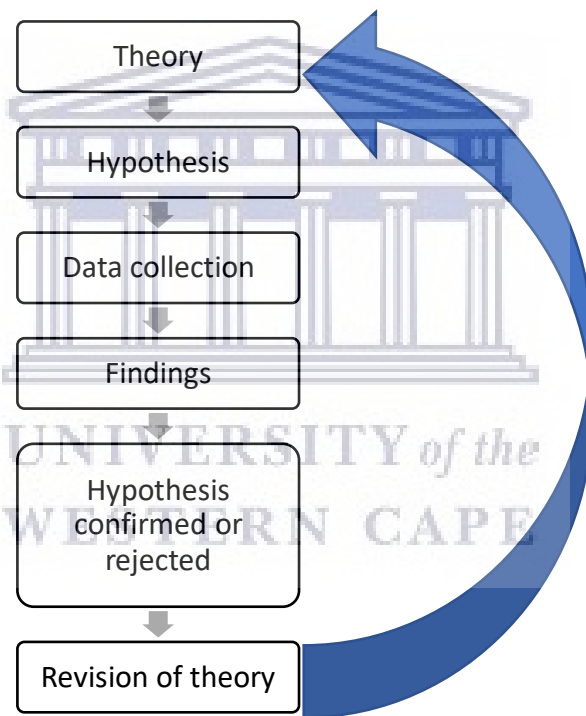


Figure 4.2: The process of deduction (Bryman & Bell 2014, 9)

4.2.3 Worldview

Ryan (2006, 14) posits that the way we live is influenced by a worldview, which influences how we think, behave and organize our lives, including how we approach research. Worldviews guide the questions to be asked in a study, what is to be observed, how the data will be collected, analyzed and

interpreted. All scientific research therefore must be conducted within a specific worldview and this must be clearly spelt out in the research report (Bertram & Christiansen 2014, 22; Marutha 2016, 109). This study used the positivist worldview since it maintains that a true description, explanation, cause of events or social patterns can be found and tested by scientific standards (Roth & Mehta 2002, 132). Positivism was introduced by Auguste Comte, and its assumption is that scientific truths can be verified through empirical observation and logical analysis of what has been observed (Babbie 2017, 34; Creswell 2014, 7; Flick 2015, 20). Unlike constructivism and interpretivism, positivism considers research as a process characterized by measurement, objectivity, standardization and representativity, in which knowledge is discovered and not produced by human beings (Ryan 2006, 16). What is important in positivism, is the measurement of relationships between things to prove a hypothesis (Bertram & Christiansen 2014, 22), hence it is also referred to as scientific research or scientific method, (Creswell 2014, 7; Ryan 2006, 14). Post-positivism, on the other hand refers to an assumption developed after positivism, which challenges positivists thinking that the causes of something is determined by its outcomes, as is the case in experimental research. Studies which employ the post-positivistic assumption focus on understanding and interpreting rather than on prediction and control (Creswell 2014, 7). Unlike positivism, post-positivism attempts to falsify or disprove rather than prove or refute a hypothesis (Bertram & Christiansen 2014, 23). If findings of a study cannot be disproved, post-positivist researchers consider the hypothesis to be strengthened rather than proven. Post-positivism is characterized by researchers' own assumptions, values, passion and politics, whereas positivism considers the world of research separate from researcher's descriptions for standardization. The difference between positivism and post-positivism is that the latter rejects the positivist idea of knowing the truth completely by claiming that the truth can be approximated (Bertram & Christiansen 2014, 24).

Positivism was found to be in line with the aim of the study. In addition, the study was free from researcher influence or bias, which is a characteristic of the positivist worldview (Leedy & Ormrod 2015, 99). Positivism dictates that knowledge is separated from the person who constructs it, therefore, researchers come in as objective observers to study phenomena that exist independently of them and do

not affect or disturb what is being observed (Rehman & Alharthi 2016, 53; Ryan 2006, 15). The researcher is a former Western Cape Provincial Archivist and was one of the senior managers of the Western Cape Department of Cultural Affairs and Sport. To be objective, the researcher separated her personal knowledge and experiences from the research to avoid bias, hence the choice of the positivist worldview. Moreover, since the intention of the study was to measure, positivism was found suitable. Positivism dictates that the relationship between things can be measured as posited by Marutha (2016, 111) who explains that the positivist paradigm is suitable for studies using the quantitative approach because it is meant to use numeric measures to study the behavior of a population. Petersen and Gencel (2013, 1) posit that a worldview a researcher adopts, influences the choice of research approach. A detailed motivation on the choice of the quantitative approach is presented in the following sub-section.

4.3 Research approaches

Babbie (2017, 91); and Salkind (2018,14), describe research as an activity based on the work of others to discover new knowledge and can be approached from different directions. Creswell and Creswell (2018, 3), explain that research approaches or strategies are plans which outline the methods of data collection, analysis and interpretation. The two most used research approaches are quantitative and qualitative but there is a third one, the mixed methods approach which combines elements of the other two approaches. The three approaches are often seen as different from each other; however, they are not as distinct since each has its strengths and adds value for to a study (Bless, Higson-Smith & Kagee 2006, 43; Bryman 2012, 35; Creswell 2014, 4). The authors maintain that the differences are between qualitative and quantitative approaches where the latter uses measurement and close-ended questions, while the former uses words and open-ended questions. Mixed methods research is middle of the road and combines both quantitative and qualitative approaches.

Research approaches are guided by ontological positions, theoretical drives and philosophical assumptions or worldviews. Oliver (2008, 24), describes ontology as the nature of the world and what it means to exist in the world. For instance, when the social phenomena under study pre-exist, are external to the researcher and cannot be influenced by personal feelings or attitudes of the researcher, the ontological position is objectivism. On the other hand, the social phenomena may be constructed

continually from the perceptions and actions of humans, this ontological position is constructivism. Research approaches are meant to find out where there are no pre-assumptions about something (induction) or test to refute/confirm an existing theory (deduction). These activities are known as the research theoretical drive or logic and are guided by the ontological position of the study (Morse & Niehaus 2009, 39). Research approaches, therefore, are either inductive or deductive. In the case of a mixed methods approach, the core component of the study, whether quantitative or qualitative, reflects the theoretical drive of the study.

In addition to ontological positions and theoretical drive, research approaches are guided by paradigms or worldviews (Creswell & Creswell 2018, 5). Some scholars, such as, Babbie (2017, 33); Bryman (2012, 27); and Flick (2015, 21), refer to worldviews as paradigms or epistemologies and sometimes use the terms interchangeably. This study used the term “worldview” since “epistemology” and “paradigm” in some instances, tend to be used to refer to theoretical drives thus creating confusion (Oliver 2008, 24). Worldviews are different point of views, understanding of knowledge and beliefs held by the researchers and respondents about the world (Creswell 2014, 6). Providing more insight, Babbie (2017, 33) explains that there are more ways of understanding and making sense of things in social research, one researcher may have a different point of view from the other. One’s point of view however is not seen as better than the other but considered useful by the researcher. Worldviews serve as frameworks for observation, determine choice of questions to ask, determine the data to be collected and its interpretation, as well as influence the choice of a research approach (Babbie 2017, 31; Bertram & Christiansen 2014, 22).

In the following sub-sections, the three research approaches, their applicable worldviews, research designs, methodologies and major differences are discussed in detail to provide an understanding of the choice of approach for this study.

4.3.1 Qualitative research

Qualitative research is believed to have been developed in the latter half of the 20th century and into the 21st century (Babbie 2017, 296; Bryman 2012, 381; Creswell 2014, 4). On the other hand, Salkind (2018, 21, 172), argues that qualitative research has been around for more than a thousand years, as seen in the practice of oral traditions since time immemorial but has recently been used in social and behavioral sciences. Creswell (2014, 4), describes qualitative research as an approach “for exploring and understanding the meaning individuals or groups ascribe to a social problem”. Qualitative research, therefore, uses words to describe and interpret aspects of the world; is exploratory; provides context; makes sense of feelings, experiences; social situations; and is conducted in the respondent’s natural setting (Babbie 2017: 297; Creswell 2014: 4). In qualitative research, respondents are purposively selected, and research is non-standardized.

The aim of qualitative research is to discover new aspects of a situation hence it is characterized by open-ended questions, dialogue, observation, and probing. Good listening and observation skills are important to undertake this approach. Although qualitative research does not collect nor analyze quantitatively, its distinctiveness lies in its other strengths, such as, describing people’s feelings in human terms and using multiple data collection methods (triangulation) for more in-depth study of a situation (Bryman 2012, 380). The data collection methods used in qualitative research are respondent observation; one-on-one unstructured or semi-structured interviews; focus group discussions; and document analysis. The use of multiple data collection methods improves chances of validity and reliability of findings. Data analysis however is a major weakness of the qualitative approach, since it may take too long to analyze data from multiple sources to the detriment of the researcher who may not have that much time. The qualitative approach therefore is most suitable for a case study or a small number of cases.

Qualitative research is inductive rather than deductive because theory is generated after collection and analysis of data (Babbie 2017, 22; Bryman 2012, 27; Creswell 2014, 9). Deductive logic on the other hand means that a study begins with a theory or hypothesis and findings are applied to an instance (Leedy & Ormrod 2010, 32). In terms of applicable worldview, qualitative research is best framed by

interpretivism and constructivism. Creswell (2014, 8) and Leavy (2017, 129), however, consider constructivism to be a combination of both world views. Bryman (2012, 30) and Flick (2015, 24), explain that in interpretivism, meanings are produced by how respondents interpret or ascribe meaning to the world (for example, researchers may interpret respondent's views by observing them in focus group discussions and through responses to open-ended questions. Constructivism on the other hand, implies that the researcher constructs meaning about respondent's views in their natural setting, for example using open-ended interviews, respondent observation, and focus group interaction. From the researcher's point of view, the combination of both worldviews is preferred since they are both similar and encapsulate the qualitative approach. It can be seen from the description of both worldviews that qualitative studies can be conducted in various research designs.

Babbie (2017, 118), explains that research designs are a set of decisions on what is to be studied, in which population, and research methods to be used. Qualitative research designs can be narrative research or retrospective studies (Flick 2015, 99). In addition, Creswell (2014, 14), explains that qualitative research designs can be through story telling; phenomenology; grounded theory; case studies; and ethnography. For instance, story-telling is when respondents share stories of their lives which are in turn narrated by a researcher; phenomenology is a description of respondent's experiences of a phenomenon usually through interviews; grounded theory means that theory is developed from respondent's views collected through multiple data collection stages; and case studies where one or more cases are studied and analyzed in detail.

The following section discusses the quantitative research approach, the differences, weaknesses and strengths of both approaches will be realized.

4.3.2 Quantitative research

Historically, the quantitative approach was used in the 19th to mid-21st centuries and is the predecessor of its qualitative counterpart (Bryman 2012, 160; Creswell 2014, 4). In the previous section, the qualitative research approach was defined as a process of exploring and understanding meaning through the respondents' own words and actions in a natural context. Quantitative research on the other hand,

is an approach for testing theories by examining relationships between variables, collecting data using a measurement instrument and analyzing the data using statistical procedures (Creswell 2014, 4). However, Bryman (2012, 161) and Salkind (2018, 32); argue that in some instances such as non-experimental research, quantitative research does not specify a theory, but treats it as a set of concerns in relation to which the researcher collects data. Nevertheless, the essence of the quantitative approach is its ability to test hypotheses and quantify findings to make the study explicit (Kumar 2014, 18). If for example, a hypothesis is “Without adult female patronage in a particular community library, usage is low”, the hypothesis could be tested by measuring the number of female and male library users, per age group at a time, to quantify findings, in order to prove or disprove the hypothesis.

The research processes of the quantitative approach are predetermined, standardized, systematic and logical and not as flexible as the qualitative approach (Kumar 2014, 14). The answers to questions, for example, are pre-defined and respondents are expected to select one or more answers. Flick (2015, 11), asserts that information beyond the pre-defined answers and respondents’ assumptions or comments are not part of the research. The author adds that the pre-defined questions are meant to standardize and quantify variables to allow for analysis of the number of variations, which helps when a study must be taken in a short space of time (Flick 2015, 11). In addition, standardization allows for replicability, which implies that the measurement should be repeatable by other researchers and yield the same results.

The research designs used for quantitative studies can be experimental and non-experimental. Experimental research involves looking for differences between two groups such as determining whether a specific treatment influences an outcome (Creswell 2014, 13; Salkind 2018, 23), for instance, administering treatment to a group and with-holding it from the other or administering a placebo treatment. Both groups are assessed to determine the outcome. Non-experimental research on the other hand, may be descriptive or correlational. Descriptive research involves studying events or situations that are happening currently and how they may relate to other factors. Surveys are an example of quantitative descriptive research and may be in the form of close-ended questionnaires administered remotely by telephone, electronic mail, post, internet, and through face to face structured interviews.

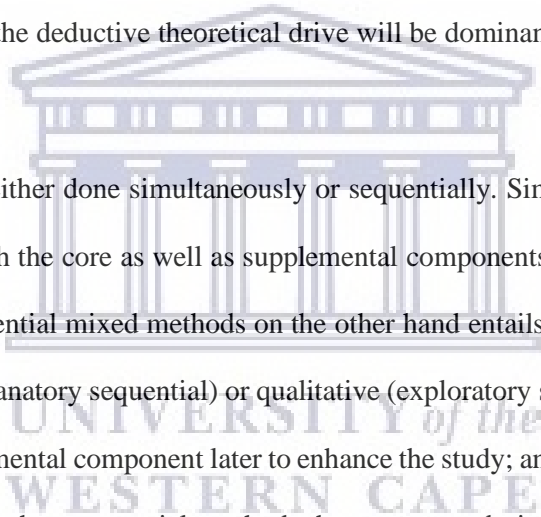
In summation, Punch (2003, 3) posits that the quantitative survey is designed to produce numerical data, measure and interpret it statistically. When a descriptive survey is used, the population of a study is carefully chosen, and the sample size is quite bigger compared to the smaller sample of the qualitative approach. The findings are then generalized to a wider population. The benefit of a larger sample is that a large number is studied in a short time. Correlational research on the other hand, involves studying the relationship between two variables to determine whether they share some commonality with one another (Salkind 2018, 165). For example, a study may investigate the relationship between the high pass rate of female students and the hours they spend at the community library. A correlational coefficient is used to measure the degree of the relationship. However, Salkind (2018, 21), asserts that though correlational research seeks to establish a relationship between two variables, it does not investigate causes, changes or effects a variable has on the other variable, which is what experimental research does.

The ontological position of quantitative research is objectivism, which implies that a researcher maintains a neutral stance and does not influence the study but allows facts to determine the study outcomes (Bryman & Bell 2011, 380). Deductivism is the theoretical drive that underpins quantitative research and implies that theory is the starting point in a study, the researcher deduces a hypothesis from what is already known (theory). A hypothesis is formed and tested resulting in either its rejection or confirmation (Flick 2015, 20). It may be seen from the discussions in 4.1.1 and 4.1.2 that both qualitative and quantitative methods are useful since some topics may require either approach to reach conclusions. However, their differences and limitations lend some researchers to adopt a mixed methods approach which is discussed in the following sub-section

4.3.3 Mixed Methods research

Quantitative and qualitative research approaches, their differences, strengths and weaknesses have been discussed in detail in the previous sub-sections. This section presents the mixed method approach, considered as an alternative to quantitative and qualitative approaches (Johnson & Onwuegbuzie 2004, 17). Some authors such as Creswell (2014) as well as Morse and Niehaus (2009, 9), posit that mixed methods research is a recent approach developed after recognition of the disadvantages of using a single

approach to answer a research question. Maxwell and Loomis (2003, 241), argue however, that mixed methods research is not recent but has been in existence for more than a century but was formalized in the 1960s, hence it is considered as a latter research approach. Mixed methods research involves combining quantitative and qualitative research techniques, methods, approaches, concepts or language in a single study, when one method or approach is not enough to answer a research question and the combination of both approaches provides a better understanding (Creswell 2014, 20; Johnson & Onwuegbuzie 2004, 17; Morse & Niehaus 2009, 9). The essence of mixed methods approach thus, is that it incorporates elements of both qualitative and quantitative approaches to enhance the study. Most importantly is that the theoretical drive (deduction or induction) of one approach is the core component which guides the study while the other approach is the supplemental component. For instance, if the study is mainly quantitative, the deductive theoretical drive will be dominant.



Mixed methods designs are either done simultaneously or sequentially. Simultaneous mixed methods entail planning and using both the core as well as supplemental components at the same time from the beginning of the study. Sequential mixed methods on the other hand entails using the core component first, either quantitative (explanatory sequential) or qualitative (exploratory sequential); completing the study; conducting the supplemental component later to enhance the study; and reporting findings in one report. There is however another sequential method, the emergent design. In the emergent design method, the supplementary component is added while the core component of the study is underway or completed and the researcher realizes that the present study is inadequate, and that additional information would greatly improve the research (Morse & Niehaus 2009, 17). The difference between the sequential and the emergent designs is that the former is planned and included in the proposal, while the latter is not planned but was considered necessary during the conduct of the study and a request made to the ethics committee to incorporate a supplementary component. Some studies use multiple methods to answer a single research question. Mixed methods approach however is not multiple methods research. The difference is that the multiple method uses different approaches in separate studies to answer the same research question and publishing the results separately, for example when a

study revealed unexpected findings, the researcher may conduct a separate study using a different approach.

The worldview that underpins the mixed methods approach is pragmatism. Mosweu (2018, 80), explains that pragmatism is better suited for answering the “what” and “how” research questions. Creswell (2014, 10), explains that the pragmatic worldview focuses on the research question and uses all approaches available to answer it, therefore, what works is central. The pragmatic worldview is thus appropriate for mixed methods research because it allows for the use of different worldviews, assumptions, data collection and analysis. Mixed methods research is stronger than the use of one method; is rigorous; and reduces bias because of its use of two methods in one study. In addition, researchers can test and build theories in a single study (Williams 2007, 70). Table 4.1. summarizes the main features and differences of the three research approaches.

Table 4.1: Summary of key differences of research approaches (adapted from Creswell 2014)

Approach	Qualitative	Quantitative	Mixed Methods
Ontology	Constructive	Objective	Either constructive or objective
Theoretical drive	Inductive (generation of theory from data)	Deductive (testing of theory)	Theoretical drive of the core component of the study. If study is quantitative, then theoretical is deductive.
Worldview	Interpretivism	Positivism	Pragmatic
Research design	- Case study -Ethnography -Narrative research	-Survey -Experimental	-Explanatory sequential -Exploratory sequential
Sampling	Purposeful small sample	Random Large sample	A combination of both qualitative and quantitative sampling methods
Data collection	Interviews Document analysis Observation	Pre-determined, close-ended questionnaire	A combination of both qualitative and quantitative methods
Data analysis	Textual and image analysis	Statistical analysis	Both textual and statistical analysis

Considering the attributes of the three research approaches, the quantitative one was found suitable for this study. The following section presents the entire research methodology of study and motivation for choosing the quantitative approach.

4.3.4 Research approach: descriptive quantitative approach

Quantitative research methods describe and measure the level of occurrences based on numbers and calculations. It was mentioned in 4.2.2 that quantitative research can either be experimental or non-experimental, and the latter could be descriptive or correlational. The descriptive quantitative research approach was selected for this study since it uses measurement and describes findings (Bless, Higson-Smith & Kagee 2006, 43; Fouche & De Vos 2005, 102). The intention of this study was to measure and describe the extent to which records were used by senior managers for evidence-based decision-making in Western Cape governmental bodies. The premise of descriptive research and positivism is that problems can be solved, and practices improved through observation, analysis, and description (Ryan 2006, 19). In addition, the quantitative descriptive approach is suitable when a study is focused on describing a phenomenon in its current state, without changing, modifying a situation, nor determining cause and effect relationship (Bless, Higson-Smith & Kagee 2006, 43; Leedy & Ormrod 2010, 182).

The essence of quantitative research is about investigating and understanding how and why variables are related (Punch 2003, 3). In Chapter One, it was discussed that some researchers such as Asogwa (2012, 199); Coote, Allan and Woodhead (2004, 17); David (2017, 9); Makhura (2005, 130); Marutha (2016, 4) and Schellnack-Kelly (2013, 166) had concluded that records were seldom used for decision-making due to various reasons such as lack of or poor records management tools and processes. The minimal use of records led to uninformed service delivery decisions and negatively affected accountability as well as good governance. The researcher's assumption, therefore, was that the use of records for decision-making led to improved service delivery. The quantitative approach was thus found suitable because of its ability to quantify and describe findings to make a study explicit (Kumar 2014, 18). In summation, Punch (2003: 2) posits that in quantitative research, variables are identified and measured to determine their relationship and extent of distribution in the study sample. Because the

intention of the study was to measure and numerically describe a phenomenon, the quantitative approach was suitable for the current study.

4.3.5 Research design: survey

Bertram and Christiansen (2014, 40) posit that when a research question has been formulated, the next step is to develop a research design, which is a plan that tabulates the type of data to be collected as well as how it will be collected and analyzed. This sub-section presents the research design used in this study.

The quantitative data that positivist researchers use to answer research questions and formulate theories can be collected through experiments, quasi-experiments, standardized tests and surveys using closed ended questionnaires (Rehman & Alharthi 2016, 54). Descriptive quantitative research uses observation, correlational, developmental and survey research designs to collect and analyze data (Leedy & Ormrod 2010, 182). The survey research design was chosen for this study since it allows for acquisition of information about one or more groups of people by asking them questions (Leedy & Ormrod 2010, 187). Additionally, the survey research design provides numerical descriptions of some aspects of a sample of the study population (Creswell & Creswell 2018, 12). Moreover, it is suitable when one cannot observe directly what one wants to study (Balnaves & Caputi 2011, 45). The survey design allows for gathering data in a short span of time (Bertram 2010; Muhambe 2018, 16). A survey is a deliberate, well-planned research study of many respondents at a moment in order to describe existing conditions with respect to one or more variables (Bertram & Christiansen 2014, 49; Coetzer 2012, 65). In addition, survey procedures are standardized for all respondents regardless of mode to enhance data reliability (Coetzer 2012, 65; Ngoepe 2012, 99). A survey can be a questionnaire for data collection, which is either self-administered by respondents or assisted by the researcher through in person or telephonic interviews (Balnaves & Caputi 2001, 76; Singleton & Straits 2010, 26). The survey design was suitable for this study since the current study used both telephonic interviews and self-administered questionnaire for data collection using the same close-ended questionnaire. For representability, the researcher conducted telephonic interviews with respondents who had agreed to

participate in the study but due to computer network access and security problems, could not answer the self-administered questionnaire sent to them at the required time. The telephonic interviews were conducted in the same manner as the self-administered questionnaire. However, the difference was that the researcher administered the questionnaire instead of the respondents. Sub-section 4.3.8 elaborates more on this process. Leedy (1974, 80), supports this process by explaining that the survey method is not restricted to be conducted through the physical eye but also by ear.

The use of both techniques of the survey was to ensure that all strata of the sample were well represented and to save time due to limited period of the study since it was a cross-sectional study. Creswell (2014, 13) and Bernard (2012, 245), posit that survey research includes cross-sectional and longitudinal studies. Bryman (2016, 53), defines across-sectional design as one that entails “collection of data on more than one case at a single point in time to collect a body of quantitative or quantifiable data about two or more variables which are then examined to detect patterns of association”. Ngoepe (2012) used a cross-sectional design in a study conducted in all South African governmental bodies. The author considered cross-sectional studies easier to conduct than longitudinal studies, because of the set time limit of the former, as opposed to the lengthy data collection period of the latter. Moreover, due to the lengthy period of longitudinal studies, respondents tend to lose interest in a study, leading to loss of respondents (Ngoepe 2012, 98). The current study was conducted just after the South African general elections 2019, which led to sudden leadership and organizational changes in governmental bodies. The shortest possible time, therefore, was needed to avoid losing respondents.

Babbie (2017, 286) as well as Ngoepe (2012, 98), assert that surveys are economical and save time thus suitable for investigating many people or units geographically spread out over a wide geographical area. Some of the Western Cape governmental bodies are within close reach while most are far flung throughout the Western Cape province (see Figure 4.3). The researcher would have needed quite a considerable amount of time and money to employ a design that involved direct interaction with respondents. For example, the distances between Cape Town and the out-lying municipalities which border the Northern Cape and Eastern Cape provinces, such as Laingsburg, Witzenburg, Cederberg,

Matzikama, Bitou, Beaufort West, Prince Albert and George range from 177 km to 610 km (AfriGIS 2020). Figure 4.3 shows the geographic spread of the governmental bodies.



Figure 4.3: Map of the Western Cape Province (source: www.westerncape.gov.za)

Other key strengths of survey research are that it reduces error by adhering to scientific research principles as well as methodologies and allows one to generalize from a smaller group to a larger group from which the sub-group has been selected (Coetzer 2012, 65; Ngoepe 2012, 100). The following subsections expand more on the target population and sample.

4.3.6 Population

Research is aimed at finding out something from an entire group of people, animals, events, or objects (Moore 1997, 3; Oliver 2008, 108). This entire group constitutes the target population of a study to which the results will be generalized (Dillman, Smyth & Christian 2009, 42). The target population for the current study was all senior managers in all fifty-four (54) Western Cape governmental bodies, listed in Table 4.2. As mentioned in Chapter One, the Western Cape governmental bodies are composed

of thirty (30) municipalities; thirteen (13) provincial government departments; and eleven (11) public entities. The senior managers from the governmental bodies were composed of four hundred and forty (440) from government departments; one hundred and forty-seven (147) from public entities; and two hundred and ninety-one (291) from municipalities, the total number of the target population, therefore, was eight hundred and seventy-eight (878) senior managers as presented in Table 4.2.

Table 4.2: Target population of the study

Department	No. of senior managers	Public entity	No. of senior managers	Municipality	No. of senior managers	Grand Total Senior managers
Agriculture	21	Cape Agency for Sustainable Integrated Development in Rural Areas (CASIDRA)	26	City of Cape Town	46	93
Community Safety	12			Cape Winelands District Municipality	68	134
Cultural Affairs & Sport	13	Heritage Council Western Cape	14	<ul style="list-style-type: none"> • Breede Valley • Drakenstein • Langeberg • Stellenbosch • Witzenberg 		
		Western Cape Cultural Commission	15			
		Western Cape Language Committee	12			
Economic Development & Tourism	32	Cape Craft & Design Institute	15	Central Karoo District Municipality <ul style="list-style-type: none"> • Beaufort West • Laingsburg • Prince Albert 	35	82
Environmental Affairs & Development	25	Cape Nature	6	Garden Route District Municipality <ul style="list-style-type: none"> • Bitou • George • Hessequa • Kannaland • Knysna • Mosselbay • Oudsthoorn 	70	101
Health	47	Organ Donor Foundation	9	Overberg District Municipality <ul style="list-style-type: none"> • Cape Agulhas • Overstrand 	38	94

Department	No. of senior managers	Public entity	No. of senior managers	Municipality	No. of senior managers	Grand Total Senior managers
				<ul style="list-style-type: none"> • Swellendam • Theewaterskloof 		
Human Settlements	19	Western Cape Rental Housing Tribunal	5	Westcoast District Municipality <ul style="list-style-type: none"> • Bergrivier • Cederberg • Matzikamma • Saldahna • Swartland 	34	58
Local government	17	Local Government Information Technology Forum	30			47
Premier	75					75
Social development	25	National Development Agency	1			26
Transport & Public Works	83					83
Treasury	24	Western Cape Gambling Board	14			38
Western Cape Education Dept	47					47
Total no. of senior managers	440		147		291	878

Dillman, Smythe and Christian (2009, 42), assert that sampling allows one to estimate the characteristics of members in a carefully defined population. Research question and purpose of the study guide the researcher in defining the population to be studied (Leavy 2017, 109). Defining the target population before data collection is done so that those included and excluded in the study are clearly spelt out (Ngoepe 2012, 100; Ngulube 2005, 133). The defined population is a subset of the target population and constitutes the study population or sample frame, out of which a sample is drawn (Balnaves & Caputi 2001, 91; Leavy 2017, 76). The definition of the study population may be by location, gender, sex or age (Babbie 2017, 213). The target population of this study composed of eight hundred and seventy-eight (878) senior managers, from which six hundred and sixty-one (661) were

responsible for service delivery decision-making. The six hundred and sixty-one (661) senior managers were sourced from organizational structures (organograms) which were available on respective Western Cape governmental bodies websites and from lists provided to the researcher by some Western Cape governmental bodies. The organizational structures and lists constituted the study population or sample frame. A sample frame is a list of all units in the population from which the sample is selected (Bryman 2012, 187). Senior managers from medical and health care facilities were excluded from the study for reasons discussed in Chapter Two. In addition, non-service delivery focused senior managers tasked with corporate responsibilities, namely, Corporate Affairs; Human Resource Management; Internal Audit; and Risk Management, were excluded from the study. Senior managers from regional offices of national departments were also excluded from the study since they fall within the national government sphere. Figure 4.4 presents the process of choosing a population, study population, and sample.

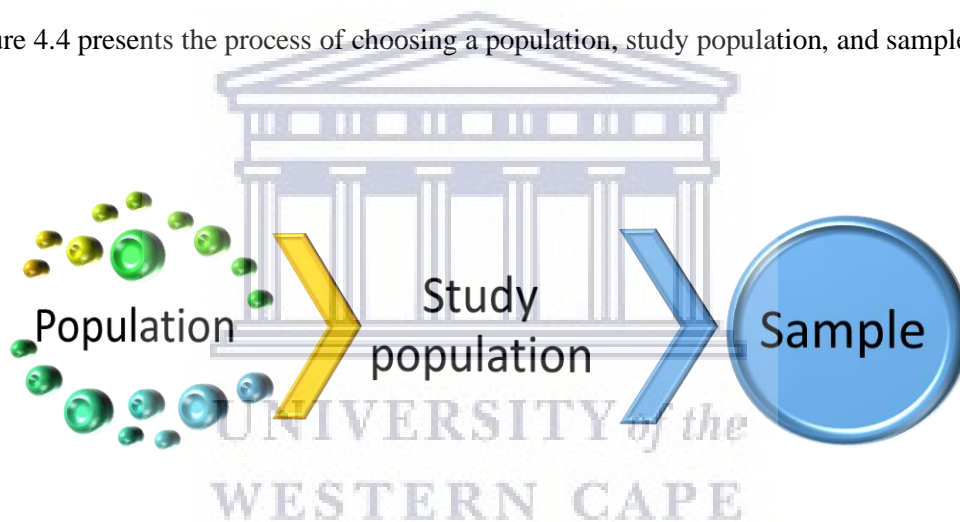


Figure 4.4: The process of moving from population to sample (Adapted from Leavy 2017, 109)

Fink (2009, 51) asserts that not all individuals in a study population have the data desired by the researcher in order to resolve the research problem, hence there is a need to select study respondents through sampling. The study population is used to select the respondent sample and findings generalized to the wider population (Babbie 2007, 190). The following sub-section elaborates more on sampling for the current study.

4.3.7 Sampling

When a survey study is conducted, the researcher may decide to contact everybody in the population or to use a sample (Beins 2009, 249). Using an entire population is known as conducting a census which is time consuming and expensive to conduct (Moore 1997, 7; Yang 2010, 35). Sampling on the other hand, is a statistical procedure aimed at gaining information about the whole population by examining a part of it and drawing conclusions about the whole (Moore 1997, 3). In addition, sampling determines who or what should be in the study, for example respondents, object or things (Leavy 2017, 76). The sample must be carefully chosen and planned to represent the whole population and avoid bias (Leedy 1974, 93; Moore 1997, 11; Morse & Niehaus 2009, 65). Representation is achieved through good sampling (Balnaves & Caputi 2001, 90). Representation is important because the main goal of research is to know about a population rather than a sample (Yang 2010, 36). Bias on the other hand, occurs when a study favours certain outcomes or selects units which are within close reach even though the population is widely spread over a geographical area (Moore 1997, 8). In describing bias, Leedy (1974, 107) states that it is any influence or condition which distorts the data or may have disturbed the randomness by which the choice of sample population has been selected. Leedy (1974, 106) cautions that bias is common in descriptive surveys, therefore, careful attention should be given when selecting the sample. Bias can be avoided by allowing chance instead of human choice to select the sample (Moore 1997, 12). Probability sampling, which is popular in quantitative research, ensures that each element in the population has an equal and independent chance of being selected (Leavy 2017, 78; Mosweu 2018, 88). In non-probability sampling, on the other hand, the population may or may not be accurately represented (Ngoepe 2012, 101).

Probability sampling types are, simple random sampling; stratified random sampling; and cluster random sampling (Morse & Niehaus 2009, 65). Non-probability sampling is used by researchers who cannot ensure that every unit of the population has an equal chance of being selected (Balnaves & Caputi 2001, 95). Examples of non-probability sample types are, quota sampling; accidental sampling; judgmental or purposive sampling; expert sampling; and snowball sampling. Yang (2010, 40) cautions,

that non-probability sampling has a risk of generating biased results. With the risk in mind, the current study used probability sampling because the study was quantitative and intended to be representative of Western Cape governmental bodies senior managers without bias. Table 4.3 summarizes the types of probability sampling.

Table 4.3: Types of probability sampling (adapted from Babbie 2017, 216; Leavy 2017, 110; Yang 2010, 45)

Type of probability sampling	Overview
Simple random sampling	Every element in the study population has an equal chance of being selected. Units are assigned numbers; a set of random numbers is generated and the units which have those numbers are included in the sample.
Systematic sampling	The first element in the study population is selected randomly and then every k th unit after the first unit is selected. Suppose $k=5$, research subjects 6, 11, 16, 21, 26 would be included in the sample.
Cluster sampling	Clusters of study population are formed, especially when conducting a large-scale study. In a national study of households for instance, districts, suburbs; and/ or streets can be selected as clusters. units in each cluster are sampled using either simple random or systematic sampling
Stratified random sampling	Units are grouped into homogenous strata. Appropriate numbers of elements are drawn by either simple random, systematic or cluster sampling. Stratification improves representativeness than simple random or systematic sampling.

Morse and Niehaus (2009, 72), posit that the primary concern for quantitative samples is representation of the population, randomization and an adequate sample size. The researcher should therefore determine the number of respondents to make sure that the sample is a fair representation of the population (Fink 2009, 58). To determine an appropriate sample size, Bryman (2012, 197) and Leavy (2017, 76), advise that researchers must determine the number of respondents needed to answer a research question or hypothesis; availability of resources, such as time and money; the need for precision; and the type of research approach. For instance, quantitative studies design are surveys which in most cases need large sample sizes. For the current study, the researcher had to decide on the number of senior managers to participate in the study and ascertain that the sample resembled the population

while mindful of the wide geographic area of the population. Dillman, Smyth & Christian (2009, 55), affirm that understanding the number of study respondents is the first step in drawing a survey sample. However, determining the sample size to resemble a population does pose a challenge but there are ways of arriving at good estimates of a sample size, such as, sampling theory and online sample size calculators (Ngoepe 2012, 103). To determine the sample size for the current study, the researcher used the Creative Research Systems sample size calculator available online from Creative Research Systems (2019). Table 4.4 shows the calculated sample size needed for this study as recommended by the calculator:

Table 4.4: Sample size of the study (Creative Research Systems 2020)

Population size	661
Confidence level (percentage of confidence the researcher has in the study results)	95%
Confidence interval (Margin of error)	5%
Calculated sample size needed for representativity	243

Leavy (2017, 77) posits that larger samples are usually needed in quantitative studies. Balnaves and Caputi (2001, 93); Bryman (2012, 198) as well as Dillman, Smyth and Christian (2009, 55), on the other hand, argue that large samples do not guarantee accuracy of results. The primary characteristic of probability sampling as mentioned earlier in this sub-section, is that the sample must be similar to the population to avoid sampling error. Bryman (2012, 715), describes sampling error as ‘the difference between a random sample and the population from which it was selected’. Ngoepe (2012, 104) and Ngulube (2005, 135), advise that a confidence level of 95% is adequate enough for the results to be accurate within $\pm 3\%$. A sampling error of 3% and a 95% confidence level mean that a researcher can be 95% confident that the sample would resemble the population. In the current study, a margin error of 5% and confidence level of 95% were accepted as recommended by the sample size calculator.

While sampling error and confidence level percentages are important in determining a sample size, other matters to consider are time, cost, as well as non-response to the survey (Bryman 2012, 198). Time was an issue to contend with during the conduct of the current study because of respondents' busy schedules. For instance, some senior managers did not prioritize the survey due to lack of time, and other day to day responsibilities. Additionally, this study was cross-sectional, the researcher therefore had time constraints. The non-response of some respondents was a challenge worth mentioning. Bryman (2012, 199), notes that during recent years there has been a significant increase in non-response rates to surveys. Causes of non-response vary and may not always be due to refusal to participate, but to forgetting or not prioritizing the survey. During the current study, some respondents had consented to participate but did not do so because they either forgot or some other activities were prioritized. The researcher followed up and used the same close-ended to interview the respondents telephonically. Bryman (2012, 200), asserts that following up of respondents is encouraged to boost responses and therefore reduce sample error. The sampling procedures of this study are discussed in the following sub-section.

4.3.7.1 Stratified random sampling.

Table 4.3 provided a summary of types of probability sampling. Stratified random sampling (SRS) was chosen for the current study. SRS is a type of probability sampling, which implies that each unit in the population has a chance of being selected and findings generalized to a larger population (Bryman 2016, 174; Leavy 2017, 78). SRS provides an opportunity for units within a sample to get equal representation thus reducing sampling error (Fink 2009, 53). In SRS, a study population is sub-divided into sub-groups or strata and a certain number or proportion of respondents are selected from each stratum to get a sample. In this study, the Western Cape governmental bodies were divided into strata of thirty (30) municipalities, thirteen (13) provincial departments and eleven (11) public entities to ensure representability. Ngoepe (2012, 103) asserts that representativeness of a sample in SRS is not left entirely to chance, instead, the researcher must ensure that the sample is like the population. With this in mind, the Western Cape governmental bodies were broken down into sub-strata of senior managers' post levels. Senior management post levels in Western Cape governmental bodies are Director General;

Municipal managers; Chief Executive Officers; Deputy Directors General; Heads of Departments; Chief Directors; Executive Directors; Directors; and Line Managers. The post levels differ in seniority but are all classified as senior management service in Chapter 4 of the Public Service Regulations (2013). Chief Executive Officers, Directors General, Municipal Managers and Heads of Departments are Accounting Officers of public entities; the Department of the Premier; Municipalities and government departments respectively. On the other hand, Chief Directors, Executive Directors, Directors and Line Managers are the line managers of the directorates or divisions in a government department, municipality or public entity. In this study, the post levels were used as strata to ensure representation of the various levels of the population. After the elements of a population are grouped into strata, a simple random, systematic or cluster sampling of each group must be conducted to select a sample (Leavy 2017, 110). For the current study, systematic sampling was used to select the sample from the strata. In systematic sampling, a list of elements is required out of which the first element is chosen randomly and every n th element (n = number) after that is chosen for the sample (Babbie 2017, 217). For the current study, the researcher compiled lists of senior managers per type of governmental body, which were further arranged by post level. Each element of the strata was numbered and the first randomly selected and every third element afterwards was selected for inclusion in the sample. For example, from the list of thirty municipal managers, the first and every fourth municipal manager was chosen for the sample. Figure 4.5 shows the sampling process from target population to selection of the sample:

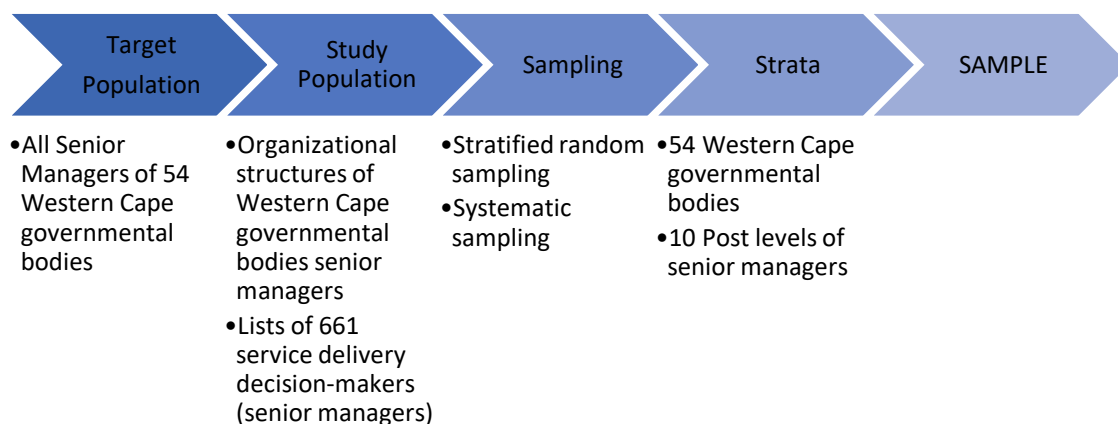


Figure 4.5: Construction of the study population and sampling process.

Yang (2010, 48) states that SRS generates better results than cluster sampling, which is similar but does not provide a chance of representativity of all strata. The disadvantages of SRS as noted by Fink (2009, 54), are that it requires more effort and requires a large sample size. Nonetheless, Ngoepe (2012, 2014) as well as Ngoepe and Ngulube (2013), in studies conducted in all South African governmental bodies, motivated the use of SRS because it ensures representation. The authors affirm that if other types of probability sampling could be used in such large sample sized studies, some national government departments and statutory bodies could be under-represented because they were fewer, and others over-represented because they were many. In the current study, the municipalities were more than provincial departments and public entities, in addition, some provincial departments had more senior managers than other governmental bodies. Since the intention of the current study was to gain an accurate picture of the target population, at the same time reduce the degree of sampling error, SRS was considered best suited for this study. The stratified sample of this study is presented in Table 4.5.

Table 4.5: Construction of the stratified random sample of the study

Governmental body stratum	Post level stratum	No. in sample
Municipalities (30)	Municipal managers	10
	Executive Directors	5
	Directors/Senior Manager	67
Provincial Departments (13)		
	Heads of Departments	4
	Deputy Directors General	7
	Chief Directors	30
	Directors	87
Public Entities (11)		
	Chief Executive Officers	3
	Senior managers	12
	Members	18
54	10	243

Survey research involves more than sample selection, questionnaire construction and data collection are part of the process (Babbie 2017, 288; Flick 2015, 133; Leavy 2017, 101). The following sub-section elaborates the data collection procedures and instruments used in this study.

4.3.8 Data collection procedures and instruments

Punch (2000, 57), asserts that data collection instruments used in quantitative studies are questionnaires, standardised measuring instruments, ad hoc rating scales or observation schedules. Surveys in particular, use self-administered questionnaires; structured person-to person; and telephonic interviews (Bryman 2012, 233; Fink 2009, 3; Flick 2015, 133; Ngoepe 2012, 105). The current study used a self-administered questionnaire and telephonic interviews as explained in the following subsections.

4.3.8.1 Self-administered questionnaire

Questionnaires are the most popular in survey studies (Marutha 2016,127). A questionnaire is “a collection of questions” (Babbie 2017, 289). The questions can be standardised closed, open-ended, or both (Fink 2009, 3). Open-ended questions give respondents an opportunity to answer questions in their own words, whereas close-ended ones have answers from a pre-determined list (Fink 2009, 3; Leavy 2017, 101). Close-ended questions include multiple choice questions; dichotomous questions, that is, those which require yes or no answers; checklists from which respondents select applicable answers; and rating scales to ascertain how closely respondents agree or not agree with something (Fink 2009, 32; Leavy 2017, 100). This study used all of the types of the afore-mentioned close-ended questions. Close-ended questions were preferred given that the study was quantitative (Marutha 2016, 129). Additionally, close-ended questions are easier to understand, complete and analyze, as opposed to open-ended ones wherein responses may be difficult to quantify, codify, and analyze (Beins 2009, 252; Bryman 2016, 244). To minimize non-responses, Fink (2009, 39), advises that the questions should be brief, which is often a characteristic of close-ended questions. During the study, the researcher noted that senior managers had busy schedules and therefore would have been put off by questions which required them to write extensively in their own words, thus lead to a low response rate. The content of the questions as well the number of questions were brief and did not take much time to complete. Bryman (2012, 250), cautions however, that close-ended questions are restrictive, which may lead to limited information important for the study and non-response to some questions. Fink (2009, 11) and Leavy (2017, 102), assert that because survey questions are designed to measure the variables that the researcher is interested in and produce reliable data, it is important that questions are constructed

properly so that the research question is precisely answered. An open question, therefore, can be included in a close-ended questionnaire, to allow for necessary information to be provided (Bryman 2012, 250). Open ended questions allow respondents to provide detailed responses when more information is needed (Dillman, Smyth & Christian 2009, 108). The current study was aimed at determining the extent to which records were used as evidence in service delivery improvement decisions, an open question was found necessary to determine the number of service delivery programs successfully implemented by asking the respondents to name them. The authors advise however that, in cases where there is a need for an open-ended question, an answer box or boxes must be provided to list items required without elaborating or describing as in an unstructured or open-ended questionnaire. This was the case with the current study questionnaire, labelled boxes to capture the required information were provided so that respondents understood that they were expected to list the information one by one. Additionally, the boxes restricted the amount of content to prevent unnecessary information. It is important to note that questionnaires require much time to compile, distribute and collect from respondents. Moreover, the researcher has no control over how respondents interpret the questions and their responses. Additionally, questionnaires have a low response rate caused by ambiguous questions, their length and structure (Marutha 2016, 131).

An online questionnaire was used for the current study which was created using SurveyMonkey. Fink (2009, 39) and Marutha (2016, 131), stress the need for careful preparation of self-administered questionnaires to make it easier for respondents to answer, since the researcher is not available to assist with the questionnaire. Elaborating more, Fink (2009, 39), suggests that in addition to the brief and precise questions, the questionnaire should have clear instructions on how to respond to each question and explanations where necessary, such as why certain questions are asked for example, sensitive or personal ones. The researcher bore the advice in mind when the questionnaire of this study was prepared. The questionnaire of the current study, was brief with eleven questions, composed of ten closed-ended and one open-ended one, as elaborated in the previous paragraph. Each question gave an instruction for instance, “select one answer from the list”; “tick all applicable” or “list below” for the open-ended question, to guide respondents on how the questions may be answered. In addition, a brief

explanation of EBDM was given in one of the questions for the respondents to provide an informed answer. The first two questions required respondents to select their applicable organization type and post-level to allow for demographic and descriptive analysis, while the rest were to answer the research questions and address the overall research problem.

To avoid low or non-response, Fink (2009, 41), advises that the questionnaire must be tested before it is administered to respondents. By pre-testing, the researcher can assess how long it takes to complete the questionnaire and identify skipped questions due to their inappropriateness or vagueness. Pre-testing the questionnaire helps to minimize low response and bias and improves validity as well as reliability of the questionnaire (Marutha 2016, 127). Data collection tools can be pre-tested on at least ten relevant participants, advises Babbie (2007, 257). The questionnaire for the current study was pre-tested by sending it to ten randomly selected pilot respondents from the same study sample. SurveyMonkey has a functionality of recording and reporting the time taken to complete the questionnaire by each respondent. The researcher noted that the average completion time was five minutes and seven seconds. The questions were answered by all respondents, the researcher, therefore, concluded that the questionnaire was clear, valid and reliable. One of the respondents highlighted a typing error on one of the questions, which was subsequently corrected. The pilot respondents were included in the current study.

To reach the intended audience, self-administered questionnaires can be delivered to respondents online also known as web questionnaires; by electronic or physical mail; collected personally by respondents from a central point (Ngoepe 2012, 106). Table 4.6 briefly explains the modes of delivering self-administered questionnaires.

Table 4.6: Self-administered questionnaire delivery methods (adapted from Dillman, Smyth & Christian 2009,108; Fink 2009, 39)

Questionnaire Type	Mail	Online	Collection & delivery
Characteristics	Written in paper and pencil or typed with instructions. Can be posted by snail mail or electronic mail.	- Accessed through a web address or link sent to respondents by electronic mail. -Low cost and returned faster return	Written in paper and pen or typed. Collected from a central point or delivered by researcher to respondents
Advantages	-Can reach large geographic areas. - Questionnaire can be completed at respondents' leisure. -People are familiar with mail surveys	- Information is obtained in real time. -Questionnaire is always available. - Allows data processing analysis. -Can reach large geographic areas. - Effective in collecting sensitive data	-Faster data collection method, respondents can complete and hand in questionnaire at central delivery point -Clarification of instructions may be done if questionnaire is delivered by the researcher.
Disadvantages	-Low response rate. -Caters for respondents with access to postal facilities, have e-mail addresses, can see, read and write. -Respondent usually skip questions	- Needs reliable internet access. -Requires computer literacy. -Questionnaires may not look the due to different browsers. -Respondents usually skip questions	-Respondents may not return questionnaires. -May exclude people who are not able to see, read or write. -Are expensive when a researcher must deliver the questionnaire or employ assistants to deliver and collect

For this study, an online, self-administered, close-ended questionnaire was the primary data collection instrument (Annexure A). The link to the website that hosted the questionnaire was provided in an e-mail to respondents (Annexure B) inviting them to complete the questionnaire. Bryman (2012, 671), stresses the importance of directing respondents to the hosting website to avoid an assumption that the questionnaire is attached to the e-mail and be discouraged when it is not. Bryman (2012, 670), explains that in the case of an attached e-mail questionnaire, the questionnaire is attached to an e-mail that introduces it. For web or online questionnaires, there are commercial websites available on the internet that allow for custom design of questionnaires; create a web address to which the respondents can be directed to; help with data analysis and other functionalities. An electronic link to the questionnaire was

sent by e-mail to respondents. Contact details of respondents were obtained from websites of the governmental bodies and directly from the governmental bodies on request. The benefit of using a web-based questionnaire is that, it is always available, thus, accessible to respondents who have hectic schedules (Beins 2009, 74).

Babbie (2017, 293) notes that there has been an increase in combining different survey modes in a single study to benefit from advantages of each. As mentioned in 4.3.7, there was a need to use different survey modes in this study. The discussion on how this was done is discussed in the following sub-section.

4.3.8.2 Telephonic interviews

Some respondents were interviewed telephonically using the same close-ended questionnaire used for self-administered survey, to boost responses for increased representativity and reduction of sampling error. Bryman (2012, 233), asserts that structured interviews and self-administered questionnaires are similar in many ways except the absence or presence of an interviewer. The author explains that structured interviews use close-ended questions much like the self-administered questionnaire process, but there is a tendency to reserve the term 'questionnaire' for self-administered contexts. Dillman, Smyth and Christian (2009, 302) refer to the use of more than one survey mode as mixed mode survey. This survey is when a researcher turns to more than one mode to achieve high quality data, such as when responses are collected using an online questionnaire and the researcher switches to telephonic interviews or mail for respondents who did not respond to the online questionnaire. Ngoepe (2012, 105) encourages the use of various methods to collect the same study data. Table 4.7 presents the types of mixed mode surveys and implications of their use.

Table 4.7: Four types of mixed-mode surveys (Dillman, Smyth & Christian 2009, 307)

Type of mixed mode	Motivation	Limitation
1. Use of one mode to contact respondents and to encourage response by a different mode. For example, contacting respondents by telephone or mail to invite them to participate in online surveys	<ul style="list-style-type: none"> • Improve response rates • Reduce non-response error 	<ul style="list-style-type: none"> • Increased implementation costs
2. Use a second mode to collect responses from the same respondents for specific questions within a questionnaire. For example, when the researcher interviews respondents but requests them to use a self-administered questionnaire for sensitive or personal questions.	<ul style="list-style-type: none"> • Reduce measurement error • Reduce social desirability bias for sensitive questions 	<ul style="list-style-type: none"> • Increased design costs • Increased non-response if respondent must respond by other mode later.
3. Use alternative modes for different respondents in the same survey period. For example, using mail to contact respondents, followed up by online, telephone or person-person interviews.	<ul style="list-style-type: none"> • Improve response rates • Reduce survey costs 	<ul style="list-style-type: none"> • Increased design costs • Measurement error from mode differences compounded with differences of sub-groups which may affect responses
4. Use a different mode to survey the same respondent in a later data collection period. For example, using different modes in longitudinal studies.	<ul style="list-style-type: none"> • Different modes become available to survey respondents • Reduce survey costs 	<ul style="list-style-type: none"> • Increased design costs • Measurement error from mode differences that impact the ability to measure change over time.

According to Table 4.7, the researcher used mixed-mode type number 3, that is, e-mail to initiate contact with respondents while an online questionnaire and telephonic interviews were used to collect the same data from different respondents. The respondents for telephonic interviews were part of the study sample and had consented to participate in the study. After receiving only seventy-one responses to the self-administered questionnaire, the researcher sent e-mail reminders to no avail, compiled a list of non-respondents and resorted to telephonic reminders. During the telephonic conversations, some respondents agreed to participate telephonically there and then but a few agreed to participate later. The researcher compiled an interview timetable for the latter group, sent electronic appointments and called them as agreed. Most respondents from this group decided to rather respond to the online survey for

anonymity, ultimately, twenty- seven (27) respondents were interviewed telephonically and one hundred and thirty-six (136) respondents used the self-administered questionnaire. The response rate of 67% was achieved. Section 5.1.1 in the following chapter elaborates on the response rate per survey mode.

Dillian, Smyth and Christiansen (2009, 307) caution that measurement error is rife in mixed mode survey due to different responses depending on mode used. In interviews for instance, the interviewer may influence the way respondents answer questions by explaining questions or guiding them, leading to bias. In this study however, the researcher avoided this by stating at the beginning of the interview that the respondents would respond to questions without requesting clarification. In addition, the researcher used the same close-ended questionnaire in both data collection modes to avoid differences in responses. To ensure consistency, standardization, and ease of data processing, the researcher asked questions in the sequence of the questionnaire; ticked the applicable boxes where appropriate; and listed information required for the open-ended question, Bryman (2012, 210) affirms that this process reduces bias and variability. Dillian, Smyth and Christian (2009) refer to use of same questions in all modes as “unified mode construction. Figure 4.6 shows the type of mixed mode used in this study:

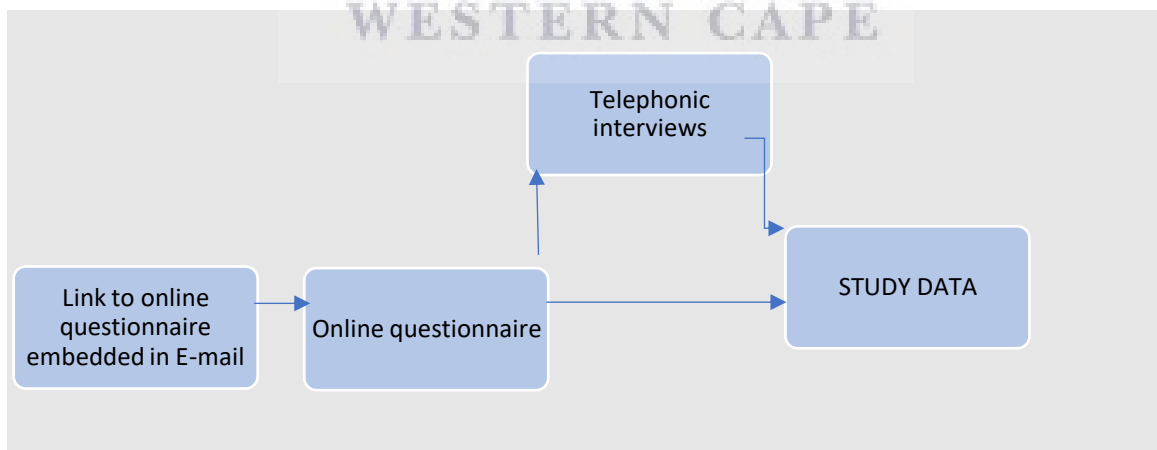


Figure 4.6: Construction of the type of mixed-mode survey of this study.

4.4 Reliability and validity of the data collection procedures and instruments

When a study is reported, consideration must not only be given to the results of the study but also the rigor of the research (Heale & Twycross 2015, 66). Researchers work to ensure that conclusions of their studies are valid and reliable (Balnaves & Caputi 2001, 89). Reliability and validity are important in quantitative studies since they ensure authenticity and credibility of a study (Bryman 2012, 178; Chawinga 2019, 97; Creswell 2014, 201; Moore 1997, 168). Both validity and reliability must be ascertained in quantitative studies because, a “valid survey may be reliable but a reliable one may not be valid” (Fink 2009, 41). The following sub-section elaborate on reliability and validity of the data collection procedure and instruments of the current study.

4.4.1 Reliability

Reliability is to determine whether a measurement technique can be repeated by other researchers and yield the same results each time (Babbie 2017, 149). A measure is the instrument used in a study (Moore 1997, 157). The measure is considered reliable if it yields the same result repeatedly, posits Venkatesh, Brown and Bala (2013, 32). In addition to asking respondents questions they would likely know, Babbie (2017, 151) and Flick (2015, 230), suggest some techniques (Table 4.8), for checking the reliability of measures:

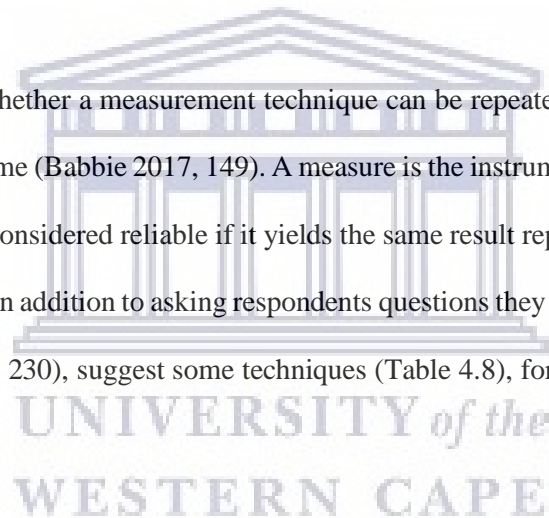


Table 4.8: Techniques for checking reliability (adapted from (Babbie 2017, 151; Flick 2015, 230)

Technique	Description
1. Test-retest/ method	A questionnaire or test is applied to the same sample twice and the correlation between the results of the two applications is calculated. If there are changes in responses, the measurement is considered unreliable. The purpose of testing is to determine whether the questionnaire will provide the needed information; appropriateness of the questions; and consistency of instructions.
2. Parallel-test method	Two different instruments are applied in parallel. If the first instruments yield reliable results, the same will be expected of the second instrument.
3. Split-half method	A questionnaire is split into two equal groups of questions each set should yield the same results. If they do not, the measure is unreliable.
4. Using established measures	Use of measures which have been used in other studies and were proven reliable.
5. Inter-observer reliability	This method is common in content analysis studies and applied when more than one observer involved in the analysis. If there are inconsistencies in the analysis of the observers, the measurement is considered unreliable.
6. Internal consistency	This method tests how internally consistent the questions are in measuring attitudes, views that they were supposed to measure.

During the current study, the researcher pre-tested the self-administered questionnaire as discussed in 4.3.8.1. The questionnaire was found reliable since it yielded the same results in the telephonic survey as well. Additionally, a few of the respondents had dual posts such as being a senior manager in a department and Chief Executive Officer of a public entity that reports to the same department. No difference in responses was noted by the researcher from the respective respondents. Flick (2015, 230) cautions however that a difference in responses may not be due to unreliability of a measure, but familiarity to the questions by respondents. In addition, the researcher used an established method such as the mixed mode survey, explained in detail in 4.3.8. Seasoned researchers such as Dillman, Smyth

and Christian (2009); Marutha (2016); Ngoepe (2012) as well as Ngulube (2005), encourage the use of mixed mode data collection methods to achieve high quality data results. This study used a second mode for some respondents to improve representability and responses. The use of an alternate mode proved beneficial for this study because it improved the response rate and representability. However, Dillman, Smyth and Christian (2009, 310), caution that multiple modes of data collection are prone to measurement error because respondents may react differently. In this study, the same questionnaire used for the self-administered mode was used for the telephonic interviews and respondents were given the same instructions, therefore, no measurement error was noted. Fink (2009, 42) notes that not all researchers are concerned with internal consistency, as it was the case with this study because the questionnaire was not meant to measure respondent attitudes or characteristics.

4.4.2 Validity

Fink (2009, 43), asserts that a valid questionnaire consistently provides accurate knowledge; attitudes; values; and behavior of the respondents despite background fluctuations. Validity establishes appropriateness and accuracy of the research procedures used to find answers (Kumar 2014, 177). In summation, Balnaves and Caputi (2001, 89), state that validity establishes whether the measures of a study have achieved what they had set out to measure. The process of validating an instrument is meant to search, gather and utilize evidence as a basis for arguments to discount threats to construct validity (Bester 2017, 24). Researchers working in different research environments where different worldviews dominate, define their own categorization for validity in relation to the research methods they use (Petersen & Gencel 2013, 2). Giving more insight, Balnaves and Caputi (2001, 89) as well as Fink (2009, 43) posit that there are various types of validity to be ascertained in quantitative research:

a) Predictive validity

Predictive validity is when a questionnaire predicts respondents' ability to perform a task or behave in a certain way. Due to the objective nature of this study, predictive validation was not relevant.

b) Concurrent or criterion validity

When data from a new study correlates to the data a previously established study, this is known as concurrent validity. Concurrent validity is achieved by using and comparing the measure of a new study

with a well-established measure on the same sample of respondents. If the outcomes of both measures correlate, then the measure has concurrent validity. This type was not ascertained since no prior studies were found as mentioned in Chapter Two.

c) Content validity.

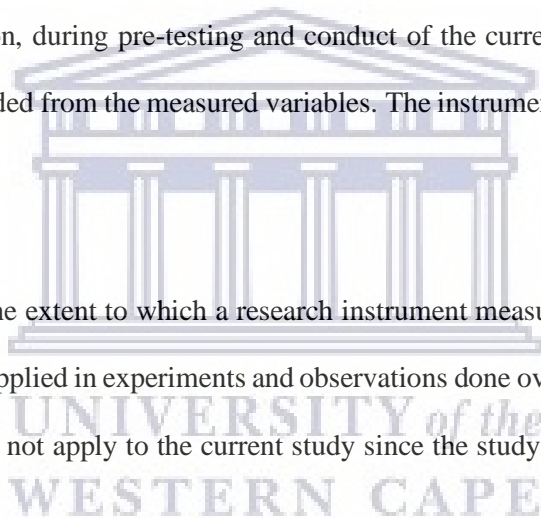
Content validity refers to the extent to which a research instrument accurately measures all aspects of a construct (Fink 2009, 43; Heale & Twycross 2015, 66). In other words, if the instrument covers the entire variable or construct it was designed to measure, the instrument has content validity. Bester (2017, 24) states that to ensure validity, it may be required that the instrument is revised. The questionnaire for this study was initially submitted to the UWC Ethics Committee, which recommended its revision to obtain the required data. The revised questionnaire was improved and approved by the Ethics Committee. In addition, during pre-testing and conduct of the current study, the questionnaire yielded the required data needed from the measured variables. The instrument therefore was considered to have content validity.

d) Construct validity.

Construct validity refers to the extent to which a research instrument measures the intended construct. This validity type is usually applied in experiments and observations done over long periods (Fink 2009, 43). This type of validity did not apply to the current study since the study was non-experimental and cross-sectional.

e) Internal validity

Internal validity refers to the extent to which the research design allows the researcher to draw conclusions about the variables studied (Balnaves & Caputi 2001, 89). This validity type deals with factors that might affect cause and effect relationships but should not be disregarded in studies where no statistical cause-effect relationships are to be established (Petersen & Gencel 2013, 3). The research design of this study is discussed in detail in 4.2.4 and it enabled the researcher to collect the required data and draw conclusions. The variables were measured adequately to provide conclusions to the study. Internal validity of the study was therefore sound.



f) External validity

External validity refers to the extent to which the sample is representative of the population and results can be generalized beyond the sample used in a study (Bester 2017, 19). Good sampling procedures such as stratified random sampling enhance external validity (Balnaves & Caputi 2001, 90). Stratified random sampling was used as the sampling method for this study for representativity. The population was well represented since all strata were included in the sample. The study results therefore were able to be generalized to the population. Ngoepe (2012, 111) adds that validity and reliability may be addressed adequately during the data collection stages, but there may be other issues during the data analysis and interpretation stages. The following section briefly describes the data analysis procedures of the current study and more detail is provided in Chapter Five.

4.5 Data analysis

Information on data analysis is included in the research methodology chapter to provide readers a summary of procedures employed rather than a presentation of the actual data (Oliver 2008, 113). Reporting on data analysis procedures provides readers an idea of the type of data collected; whether the hypothesis is refuted or confirmed; and whether the data is reliable enough to reach conclusions about a study (Hofstee 2006, 117; Leavy 2017, 111). When reporting on survey research, some researchers tend to start with descriptive statistics, which describe and summarize data; followed by inferential statistics, which test the research question or hypothesis and generalizes the findings from the sample back to the population it was taken from (Leavy 2017, 111). However, Babbie (2017, 64) cautions that generalization in descriptive research is possible only when a substantial majority of the sample participated in a study. This study largely deployed a descriptive analysis because a substantial majority participated. This section, therefore, reports on both descriptive analyses since the intention of the study was to describe findings quantitatively. Descriptive statistical analysis is composed of univariate analysis, which is a description of a single variable; sub-group comparisons used to describe similarities and differences among sub-groups in relation to a variable; bivariate analysis, which is the description of two variables simultaneously; and multivariate analysis, which is the simultaneous description of more than two variables at the same time (Babbie 2017, 445; Yang 2010, 13). Statistical

inference on the other hand employs techniques to test how confident a researcher is, that the study findings from a sample can be generalized back to a population (Bryman 2012, 347). The inferential statistical tests are presented in Table 4.9

Table 4.9: Inferential statistics tests (Bryman 2012, 344, 348; Leavy 2017, 113)

Statistical test	Type of measure	Description
<i>t</i>-Test	Comparison	Compares statistical difference of two groups.
Analysis of Variance (ANOVA)	Comparison	Compares statistical difference of more than two groups.
Analysis of co-variance (ANCOVA)	Comparison	Compares the results of more than two groups, controlling for co-variates.
Chi-square	Association	Used to establish how confident a researcher is that the findings can be generalized from a probability sample to a population.
Cramer's V	Association	Tests the strength of a relationship between two variables.
Pearson's <i>r</i>	Correlation	Used to determine the strength and direction of the relationship between two variables.
Multiple <i>r</i> regression	Correlation	Used to relate three or more continuous variables.

The data collection software used for this study, that is, the latest version of Survey Monkey had a functionality for storing the returned questionnaires; storage of data; descriptive data analysis; and presenting the data. The researcher additionally manually stored the questionnaires from the telephonic interviews; prepared the data by manually identifying skipped questions and checking for errors; numerically coding the variables; and used the latest Microsoft Excel spreadsheet version to capture coded data from both questionnaires for descriptive analysis.

Babbie (2017, 423) and Leavy (2017, 111), stress that the data must be prepared and quantified in codes before capturing it onto a statistical software so that the computer programs can read and analyze

the data. Manual preparation and coding were found beneficial because of the open-ended questions which SurveyMonkey could not analyze as well as the telephonic interview questionnaires. Univariate analysis was used for descriptive statistics. Description was done by generating frequency tables and diagrams using Microsoft Excel, Word and SurveyMonkey. Bryman (2012, 337) explains that frequency tables report in percentages and can be used for all types of variables. Chapter Five elaborates on data analysis. The following section describes an evaluation of the research methodology of the study.

4.6 Evaluation of the study research methodology

Hofstee (2006, 117); Ngoepe (2012, 116) and Oliver (2008, 114), advise that because no research method is perfect, researchers need to provide a balanced perspective of the strengths and limitations of a study approach to motivate or caution other researchers who may want to replicate the study. The next sub-sections discuss the strengths and limitations of the current study.

4.6.1 Strengths

The quantitative approach used in the study was beneficial because of its strength in describing results quantitatively. In addition, due to the wide geographic area and large population, the survey design saved travelling costs and time otherwise it would have been expensive and time consuming to employ any other approach. The mixed mode survey prevented bias and contributed to representativity. In addition, the rigorous method of selecting a sample were beneficial for the study because all members of the population strata were well represented, in so much that the researcher had confidence that the findings represented the population. Quantitative methods require the observer to detach themselves from a study (Balnaves & Caputi 2001, 105). In support, Diko and Bantwini (2013, 18) encourage independent and value free research when conducting a study in government. The objectivity of the quantitative approach ensured that the researcher, though familiar with the study environment, distance herself from the study through all the stages of its conduct. The brief questionnaire suited the busy schedules of the senior managers. Thus, its short questions; simple language; layout and design did not deter most of the respondents from completing the questionnaire. In support, Balnaves and Caputi

(2001, 85), posit that well-formatted questions have a high chance of getting accurate responses. Furthermore, the data analysis procedures allowed the study to achieve its aim describing findings quantitatively.

4.6.2 Limitations

The study had its limitations. Hofstee (2006, 117), opines that that all research methods have limitations. The delays in obtaining ethical clearance or permission from some Western Cape governmental bodies set back the study considerably. In some cases, the researcher had to wait for months for the Research Ethics Committees of certain departments to meet. No responses were forthcoming after the meeting dates until the researcher sent reminders. Additionally, slow responses delayed the progress of the study a great deal. Some of the delays were caused by sudden leadership changes after the 2019 National General Elections. The study was cross-sectional; therefore, time was of utmost importance, hence the researcher sent reminders and resorted to telephonic interviews to improve response rate and representativeness. Information technology has come with benefits and challenges as it was experienced with the web-based questionnaire of this study. Some respondents did not respond due to information technology security reasons but were willing to participate in a telephonic interview. The web environment is plagued with security concerns such as phishing and scams (Dillman, Smyth & Christian 2009, 197), as a result some people are wary of clicking links whose source is unknown to them. In addition, there are sophisticated measures that some organizations have put in place to divert suspicious e-mails to a junk e-mail folder. The researcher found out from respondents during telephonic calls to remind them of the study, that the e-mails with the questionnaire link were sent to junk folders. Such technical problems do cause some delays although the web-survey is considered low cost and a high response rate (Dillman, Smyth and Christian 2009, 197). The next section describes the steps that the researcher took to ensure sound ethical conduct of the study.

4.7 Ethical considerations

Bryman (2012, 130) as well as Oliver (2008, 115), affirm the importance of reporting efforts taken by the researcher in treating respondents with respect, honesty, and care. Researchers need to know what

is improper and proper during the conduct of a study (Babbie 2017, 62). A study, therefore, must be cleared of unethical issues to protect respondents' rights, dignity, and confidentiality (Chawinga 2019, 104). In addition to protection of respondents, ethical clearance protects the credibility of the institution and researcher (Bryman 2012: 134). Ethical clearance for this study was obtained from the Humanities and Social Science Research Ethics Committee (HSSREC) of the University of the Western Cape, before the study commenced (Annexure C). The researcher abided to the requirements of the HSSREC during the conduct of the study.

Bryman (2012, 148) notes that ethical approval takes time and therefore should be done in the early stages of the research. Ethical approval for this study took some time due to amendments to be made on the questionnaire. Furthermore, when the research protocol was approved, it was required that permission letters from the respondent organizations be submitted to HSSREC. A request for permission to conduct the study in Western Cape governmental bodies was sent to the Director General of the Western Cape Government (Annexure D). Permission to conduct research in Western Cape Government (WCG) departments was obtained from the Director General before data collection (Annexure E) and submitted to the study supervisor as well as the HSSREC. Additionally, permission was requested from the Heads of each of the fifty-four (54) governmental bodies before research could be conducted as instructed by the Director General. Furthermore, ethical clearance was sought from Research Ethics Committees of some governmental bodies, as it is their policy to do so before studies can be conducted.

Fink (2009, 45) suggests that because many people have become suspicious of surveys, more especially online ones, researchers should assure respondents of confidentiality and privacy of their data by providing assurance in informed consent forms. There are some instances as noted by Bryman (2012, 143), where some researchers have deceived respondents by providing false information about a study. The right information about the study is vital before a respondent can give consent to participate. It is a requirement of the HSSREC for researchers to send informed consent forms to respondents for their approval prior to collecting data. The informed consent letter gives respondents written information about the study so that they can decide to participate or not (Babbie 2017, 65; Fink 2009, 45).

Additionally, it is a violation of rights to harm others; to force people to perform actions against their will; to lie to or mislead them and to invade privacy (Ngoepe 2012, 114). Researchers must avoid or minimize harm to respondents as much as possible by including information about risks of the study must be included in the informed consent. The request for permission to conduct research letter (Annexure D) had information about the study as well as the study informed consent forms (Annexure F). Respondents were made aware of voluntary participation in the introductory e-mail. The Heads of government bodies also emphasized voluntary participation and confidentiality when granting permission to the researcher. Furthermore, personal details of respondents were not required in the questionnaire because they were not important for the study. Respondent's privacy was therefore protected. The study was conducted with the noble intention to add to the body of the use of records as sources of evidence and evidence-based decision-making knowledge. The researcher had no intention to cause any embarrassment nor harm to respondents, therefore, much effort was made to avoid causing discomfort to the respondents.

The following section concludes this chapter by providing a summary of the methods, processes, instruments, strengths and limitations discussed in the chapter sections.

4.8 Chapter conclusion

The chapter began by presenting an exposition of the three social science research approaches as background and to show why the quantitative approach was ideal. The investigation was descriptive; cross-sectional; and used a mixed mode survey design. The wide geographic spread of the Western Cape governmental bodies motivated the choice of a survey design. The mixed mode survey addressed low response challenges encountered during data collection. The study was conducted among all senior managers of Western Cape governmental bodies from which a stratified sample was selected so that findings could be generalized back to the population. The statistical analysis methods used, that is descriptive and minimally, inferential statistics, were to ensure that description and generalization were achieved. The data collection processes; instruments; and entire research methodology were evaluated to show validity, reliability of the study. While there were some challenges experienced, the researcher was confident that the rigorousness of the study bore the findings that the study had intended to uncover.

The discussions were supplemented with tables and figures for clarity. The following chapter elaborates on the study findings by analyzing and presenting the data collected.



CHAPTER FIVE

DATA PRESENTATION AND ANALYSIS

5.1 Introduction

Chapter Four gave insight into the research approach; design; sample; data collection; and analysis methodologies of this study. The ethical considerations of the study were also discussed. Leedy (1974, 109), posits that data on its own without explanation has no value, to be understood, it must be analysed, presented, and interpreted. This chapter, therefore, provides in-depth analysis and presentation of data collected from the web and telephonic surveys discussed in Chapter Four. Flick (2015, 245), remarks that presentation of data completes a study and provides readers with a better understanding of what was studied. While in-depth detail is necessary for presenting the data, Babbie (2017, 467), cautions against clutter. To avoid clutter Flick (2015, 247), advises the use of charts, tables and graphs to present data clearly. With the advice in mind, the textual description of findings in this chapter are supplemented with tables, charts, and graphs to present clear and uncluttered data. This chapter commences with a description and analysis of the sample response rate as well as profiles of Western Cape governmental bodies. In addition, the response rate by survey mode is presented. Subsequently, a descriptive analysis of responses to each of the study objectives is provided. Anonymity of respondents and organisations was maintained throughout in this chapter. A summary of the discussions is provided in the conclusion.

5.2 Response rate analysis

Researchers expect everyone in the sample to respond to the survey, however, this is not always the case (Fink, 2009, 6). The response rate is the percentage of the sample that agreed to participate and responded to the survey (Bryman 2012, 199). As discussed in Chapter Four, a stratified sample of two hundred and forty-three (243) respondents was selected for the study. The strata were composed of three types of Western Cape governmental bodies and ten types of post levels. Bryman (2012, 199), posits that some individuals may not respond, while some may return incomplete and un-usable questionnaires. These cases are considered as non-responses. In this study, one returned questionnaire from the web survey was incomplete because the respondent answered one question only and this

questionnaire was therefore deemed unusable. A few of the returned questionnaires had skipped questions which is indicated in the analysis. To standardise analysis of data from the two-mode survey, all the returned and usable web questionnaires were printed and assigned code numbers. The code numbers, such as WQ for web questionnaires, were written on each questionnaire which were manually filed in folders according to type of governmental body. The questionnaires from the telephonic survey were assigned TQ (telephonic questionnaire) numbers, sorted by governmental body and filed separate from the web questionnaires in an applicable folder. The code numbers assisted with manual counting of the questionnaires per survey mode. The following section presents the analysis.

5.2.1 Response rate by survey mode

The total number of completed questionnaires of the web survey mode were automatically counted by Survey Monkey and the telephonic ones counted manually. Additionally, after the web survey questionnaires were printed, sorted and recounted. The totals were captured on an Excel spreadsheet, which was used by the researcher to automatically calculate percentages and produce a pie chart. Both Babbie (2017, 429) and Fink (2009, 99), explain that pie charts are suitable for presenting nominal variables since they show the proportion of each category. The researcher chose to use a pie chart since it best presented the percentages of respondents from the two categories. A total of 136 (83%) respondents participated in the web-based questionnaire and 27 (17%) in the telephonic survey. The percentage calculation however was not to compare respondents by survey mode but to quantify the responses. Figure 5.1 presents a percentage breakdown of respondents by survey mode.

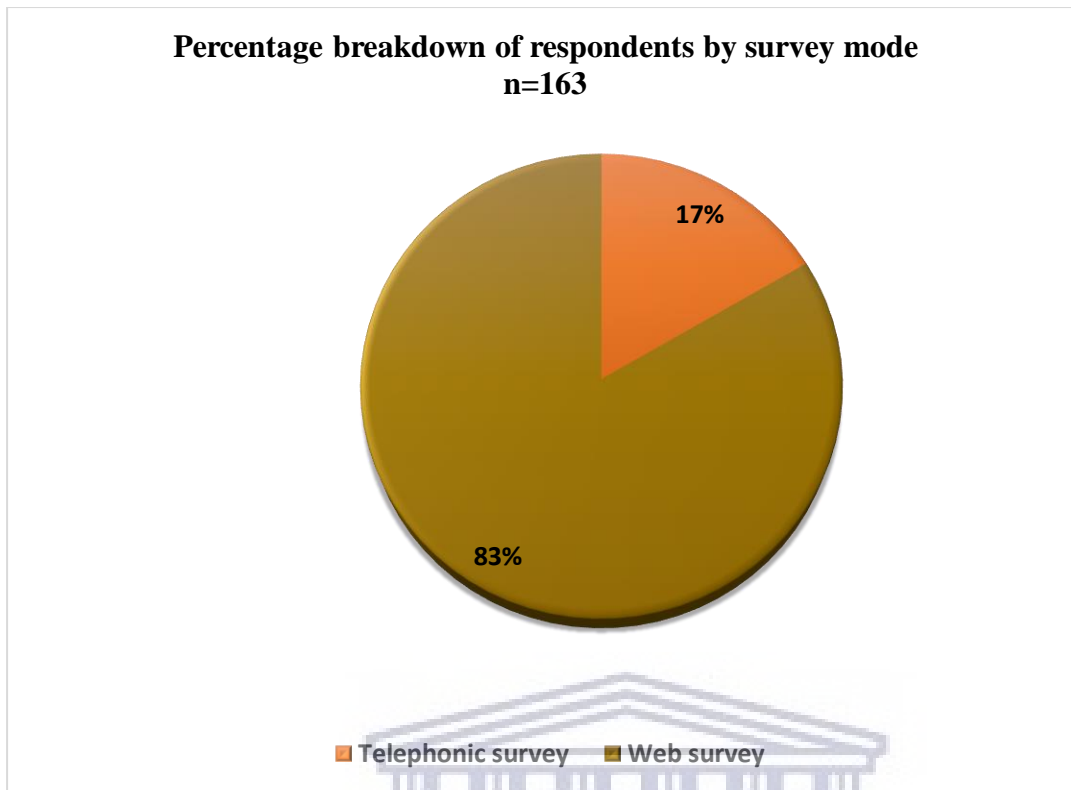


Figure 5.1: Percentage breakdown of respondents by survey mode

The following section presents an analysis of the overall study response to show the combined total of responses against the sample.

5.2.2 Overall study response rate

The total numbers of both surveys were added and the sum of respondents for the study was one hundred and sixty-three (163). As reflected in Table 5.1, a 67% response rate was achieved. A percentage calculator freely available online was used to calculate the response rate percentage against the sample of the study. The tool offers various percentage calculating options. The researcher chose the option of calculating the number of respondents (163) of the sample size (243) and the percentage was calculated automatically. Ngoepe (2012, 118), endorses the use of response rate percentages to show the representativeness of a sample. However, some researchers, such as Finchman (2008, 43) and Neuman (2014, 342), bemoan the declining survey response rates but maintain that 60% and higher should be the goal. The response rate of the current study was between 60-69% therefore considered acceptable as stated by Bryman (2012, 235).

Table 5.1: Percentage of respondents

Percentage of respondents n=163		
Sample	Respondents	Percentage
243	163	67%

5.2.3 Respondents' profiles

Respondents' profiles are provided to show the representativeness of the sample using descriptive statistics. Fink (2009, 78), reveals that descriptive statistics are commonly used in quantitative surveys since they provide a summary of the sample and responses to some or all the questions. Respondent profiles were coded by type of governmental body as well as post level categories, analysed and presented as explained in the following sub-sections.

5.2.3.1 Response rate by type of governmental body

One of the strata of the sample was type of governmental body and all 54 of them were included in the sample. As explained in 5.1, the returned questionnaires were filed according to type of governmental body for organisation and counting. The first question required respondents to indicate the type of governmental body they worked in. The code numbers of returned questionnaires were captured on Excel according to type of governmental body, that is, municipalities, government departments, and public entities. The sum of each was calculated and the totals added together. A pie chart was used for percentage calculation and presentation. From the 54 government bodies, six departments (19%); 22 municipalities (71%); and three public entities participated (10%). Therefore, from the 54 governmental bodies, a total of 31 governmental bodies participated in the study. Figure 5.2 presents the overall percentage breakdown of governmental body participation.

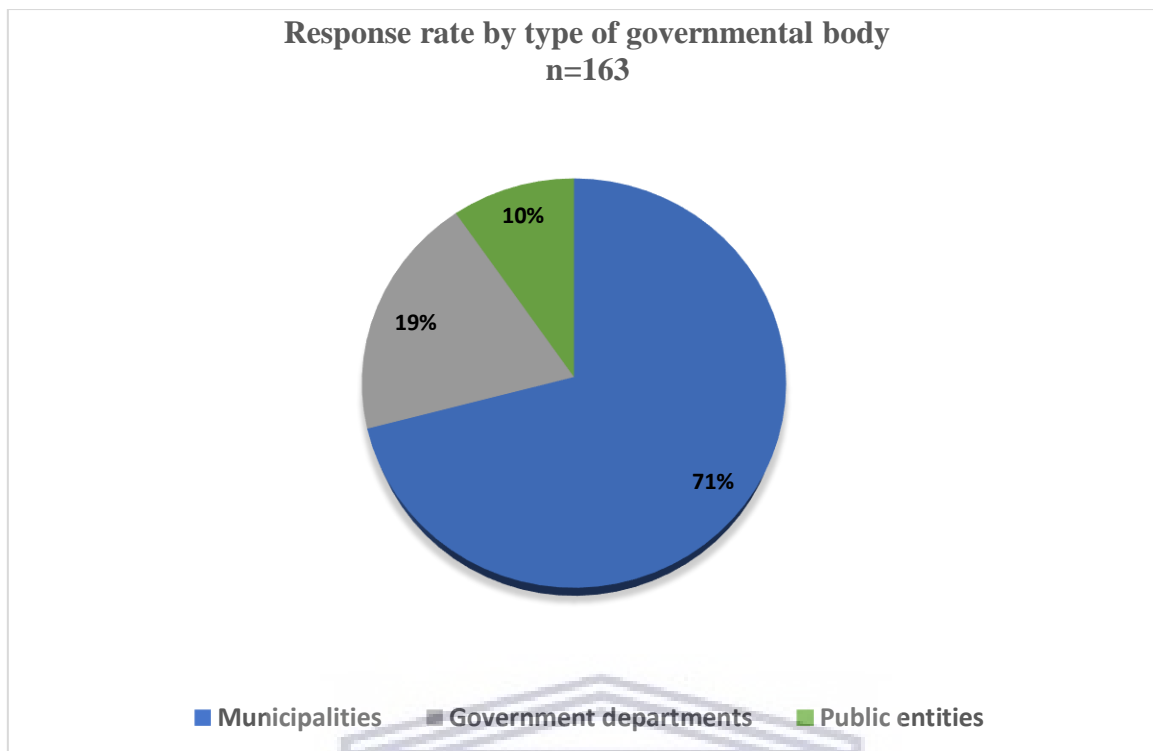


Figure 5.2: Response rate by type of governmental body

5.2.3.2 Response rate by post level

The second question of the survey required respondents to select an applicable post level from a drop-down menu. Analysing the post level response rate was to show that all post levels were adequately represented. Marutha (2016, 149), used the same methodology in his study which, much like this one, was meant to ensure representativeness of the sample to eventually generalize the findings to a population. As discussed in Chapter Four, a total of ten post level types were included in the sample. However, to avoid confusion during analysis, the director post level of municipalities and government departments were combined for analysis. The total number of post levels analysed therefore were nine. A significant difference in post level participation was noted, with directors more than other post levels due to their large numbers in all the Western Cape governmental bodies. For this variable, analysis of the web survey data was automatically calculated by SurveyMonkey. Data from the telephonic survey were manually counted, categorized, and manually captured on the researcher's study notes. The total numbers from both survey modes were captured on Excel by post level category. Four Heads of Departments; three Chief Executive Officers; five Executive Directors; nine Municipal Managers; 24

Chief Directors; nine Senior Managers; five Deputy Directors General; 99 Directors; and five Members participated in the study. To show representativity, Table 5.2 provides a breakdown by study sample; actual number of respondents by post-level; and percentage response of each post level. The table was developed on Microsoft Word for data presentation because tables are suitable to describe respondents; show relationships; sub-group comparisons and highlight changes if there are any (Babbie 2017, 434). The data collected for this variable had various categories and relationships which could be best presented in a table. The online percentage calculator was used to calculate percentages.

Table 5.2: Respondents by post level

Percentage breakdown of post level participation n=163									
Post level	Head of Department	CEO	Executive Director	Municipal Manager	Chief Director	Senior manager	DDG	Director	Member
No. respondents in sample (<i>n</i>)	4	3	5	10	30	12	7	154	18
Actual number of survey respondents	4	3	5	9	24	9	5	99	5
Overall percentage participation of post level	2%	2%	3%	5%	15%	6%	3%	61%	3%

In addition, the post level types were entered on Excel, applicable responses captured and calculated. The totals of respondents per post level were then captured under governmental body type and total sums added. From the analysis, a total of 77 respondents were from municipalities. The total number was broken down into nine (11.7%) municipal managers; five (6.5%) executive directors; and 63 (81.8%) directors. From government departments a total of 69 respondents participated. The total number was composed of five (7.2%) deputy directors general; four (5.8%) Head of Departments; 24 (34.8) chief directors; and 36 (52%) directors. A total of seventeen respondents were from public

entities. The number was composed of three (17.6%) Chief Executive Officers; nine (53%) senior managers; and five (30%) members. Figure 5.3 presents the post level distribution.

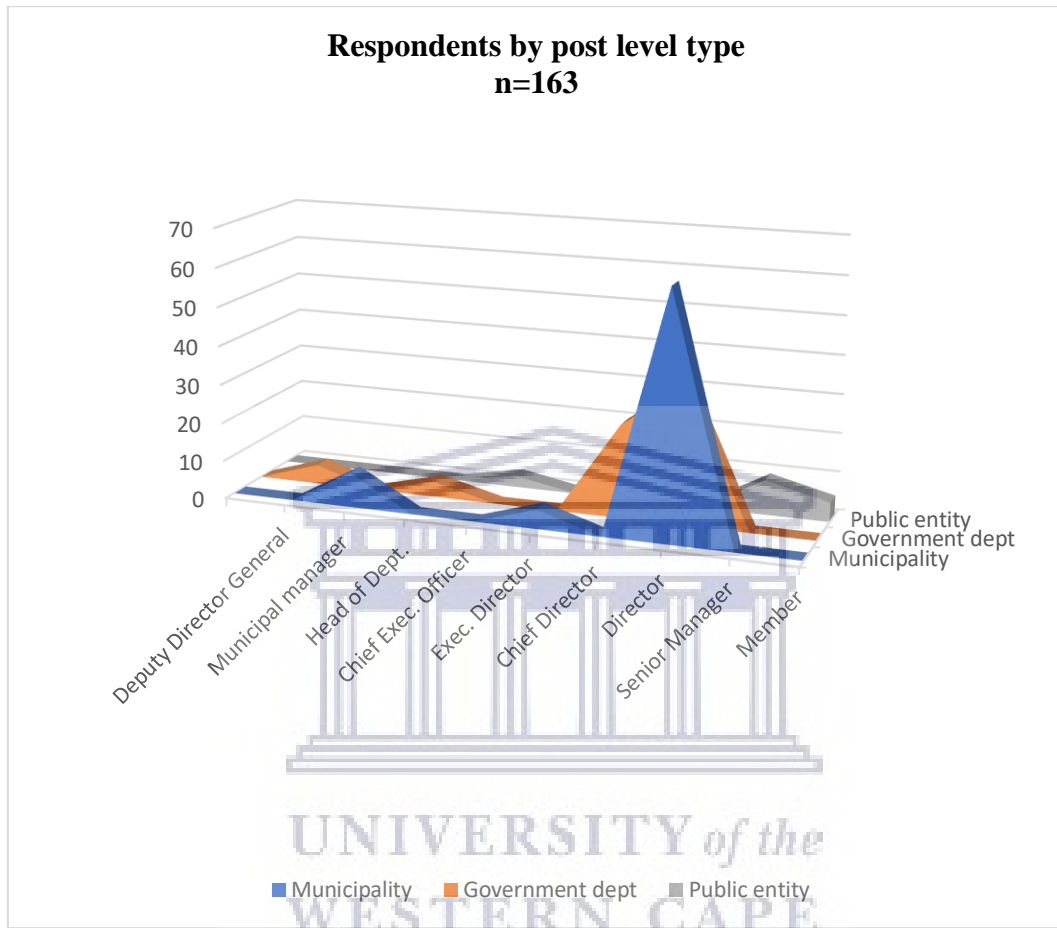


Figure 5.3: Respondents by post level type

Despite the challenges with slow responses, the findings showed that the study received an overall response rate of 67% which is acceptable as posited by Bryman (2012, 235); Finchman (2008, 1); and Neuman (2014, 342). Because senior management plays a critical role in the effective and efficient functioning of the Public Service, as well as evaluating information from multiple sources to influence decisions (Republic of South Africa 2003, 1), representativity of the types of governmental bodies and post levels was crucial in the study. With this in mind, the findings revealed that from the 54 Western Cape governmental bodies, 31 (57%) were represented. However, as mentioned in Chapter Four, municipalities were considerably more than the other two types of governmental bodies in the sample

and responses. The difference in number was also noted in the response rate by post level, with Directors much more represented than other post levels. Finchman (2008, 1) posits that representativity can be shown by assessing the strata of the sample individually to demonstrate how well represented the population is. The findings showed that from the sample, there was 100% representativity in most post levels, for example, all Heads of Departments; Chief Executive Officers; and Executive Directors in the sample responded; while all but one Municipal Manager did not respond. Additionally, other post levels were satisfactorily represented.

Morse and Niehaus (2009, 72) assert that the primary concern for quantitative samples is representativity of the population. To show representativity, the analysis of each objective, where applicable, was additionally done by type of governmental body and post level. The purpose was not to compare one against the other, but to show representativeness since the findings would ultimately be generalized from the sample back to the population. Finchman (2008, 1) and Marutha (2016, 119), explain that generalizing findings to the population implies that there is surety that findings from the sample are as if they are from the entire population. In the current study, the researcher was satisfied that all types of governmental bodies and post levels were well represented and therefore the findings could be generalized back to all the senior managers of Western Cape governmental bodies.

The following section presents a descriptive analysis of the data collected from respondents. The discussions are supplemented by charts, tables and figures.

5.3 Descriptive data analysis

The aim of the study was to determine the extent to which records were used as sources of evidence for evidence-based decision-making by senior managers in Western Cape governmental bodies. The data collected was analysed using descriptive statistics. Fink (2009, 78) reveals that descriptive statistics are commonly used in quantitative survey because they provide a summary of the sample and responses to some or all the questions. For clarity, the discussion of the data is according to the objectives of this study namely to:

- i. determine senior managers' knowledge of EBDM;
- ii. assess whether senior managers used evidence to decide on service delivery programs;
- iii. determine where the evidence was sought;
- iv. evaluate the extent to which senior managers' used records for EBDM; and
- v. determine service delivery improvement due to use of records as evidence for EBDM.

Table 5.3 presents a snapshot of the study objectives discussion headings and applicable research questions for ease of reference.

Table 5.3: Summary of research objectives and applicable research questions

Objective	Research question
Senior managers' knowledge of EBDM	RQ1: To what extent do senior managers know evidence-based decision-making?
Use of evidence by senior managers to decide on service delivery programs	RQ2: To what extent have senior managers used evidence to decide on service delivery programs?
Channels to access evidence	RQ 3: What channels have senior managers used to access evidence to make decisions?
The extent to which senior managers used records for EBDM	RQ4: To what extent do senior managers use records for evidence-based decision-making?
Service delivery improvement due to use of records as evidence for EBDM	RQ5: What impact has the use of records contributed to improved service delivery?

5.3.1 Senior managers' knowledge of evidence-based decision-making

The literature review in Chapter Two revealed the importance of awareness; knowledge and understanding of EBDM for its proper implementation; as well as knowledge of the different types of evidence. The Continuum Model of Evidence Use upholds the importance of EBDM knowledge and understanding as enablers for the usage of evidence in decision-making. The following sub-sections present analysis of responses.

5.3.1.1 Achievement of evidence-based decision-making goals in South Africa

The study was to determine senior managers' knowledge of EBDM by asking whether EBDM goals had been achieved since its implementation in South Africa. The question was a leading one in that it provided some information about the purpose of EBDM and respondents were instructed to choose a "yes" or "no" answer. In support of this type of question, Bryman (2012, 253) asserts that questions about knowledge can be asked to test the respondents' knowledge of a subject. In the current study, all 163 respondents answered this question. The web survey responses were automatically calculated and presented in a bar chart by SurveyMonkey. Telephonic survey responses were calculated manually by the researcher. Totals from both surveys were added together, captured under yes/no categories on an Excel spreadsheet, calculated and presented. A pie chart (Figure 5.4) was generated from Excel to show the responses. A total of 121 (74%) respondents selected "yes" to show that EBDM had achieved its goals since its implementation; while 42 (26%) show that the respondents believed that EBDM had not achieved its goals.

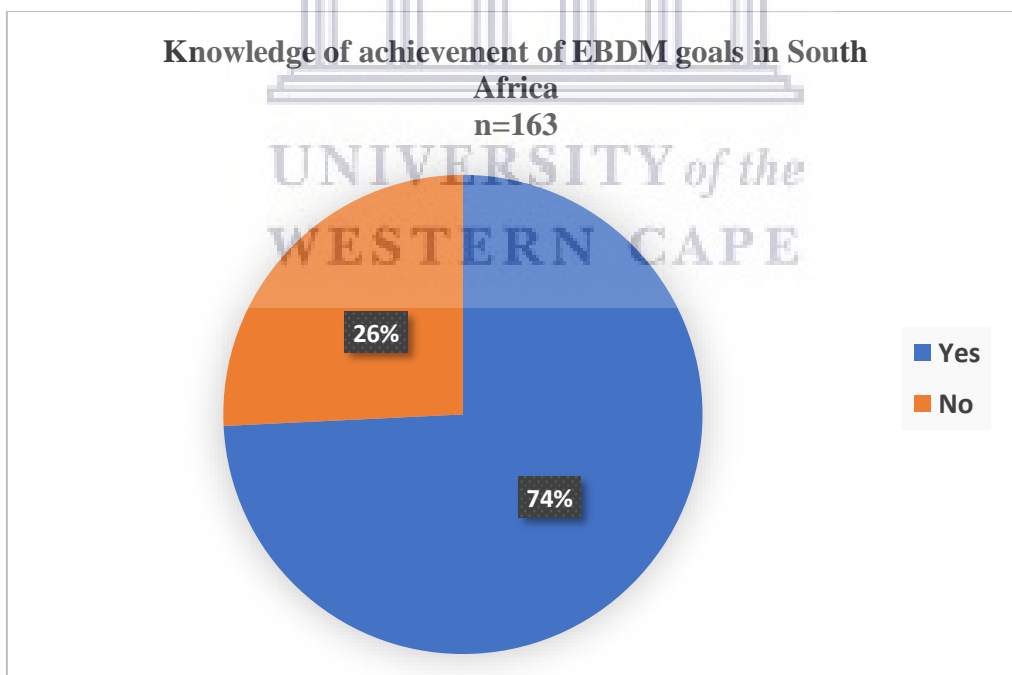


Figure 5.4: Knowledge of achievement of EBDM goals in South Africa

To show representativity and distribution of the responses, the data from both surveys were further coded and calculated under the “yes” and “no” categories by type of governmental body on Excel. The results showed that of the 121 respondents that had selected the “yes” option, 50 (41%) were from municipalities; while 59 (49%) were from government departments; and twelve (10%) were from public entities. From the 42 respondents who had selected the “no” option, 27 (64%) were from municipalities; ten (24%) from government departments; and five (12%) from public entities. Figure 5.5 presents the results.

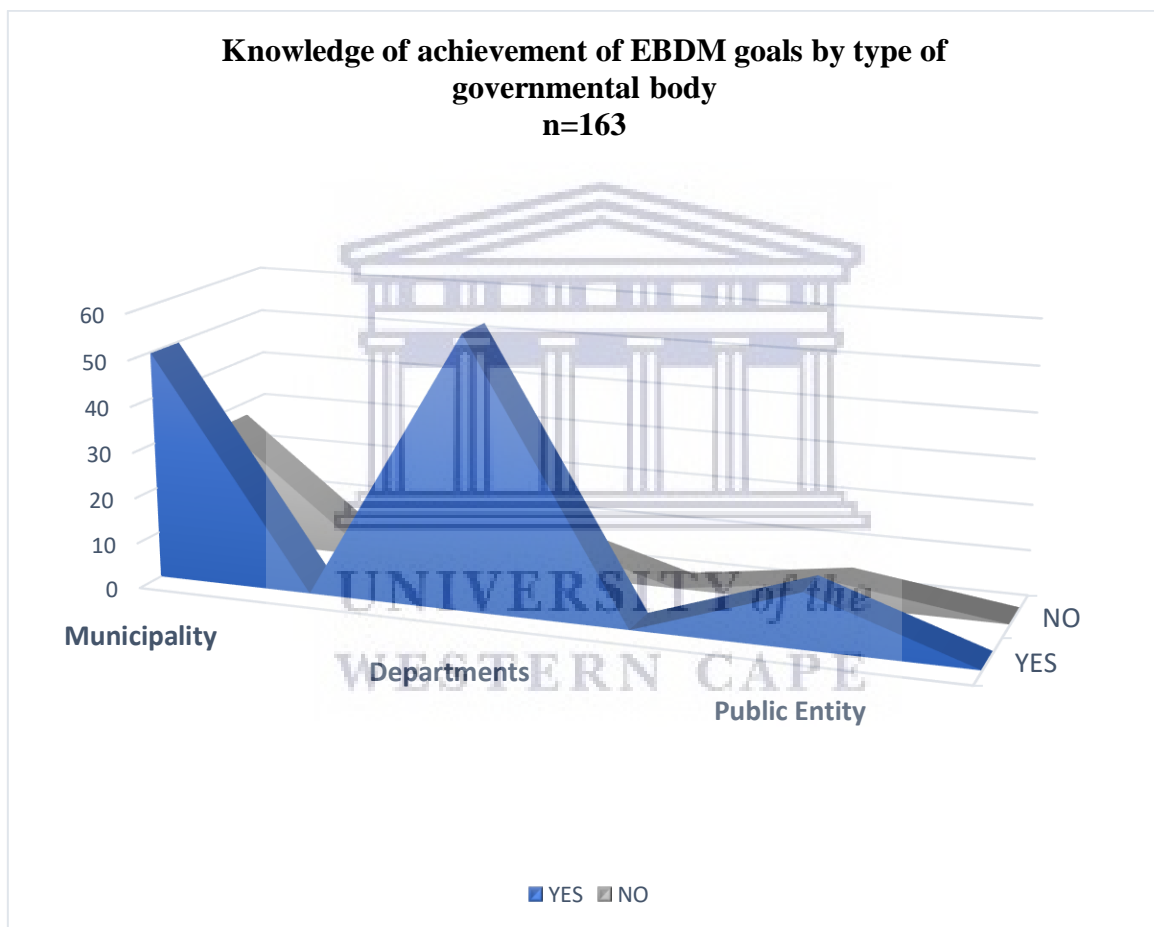


Figure 5.5: Knowledge of achievement of EBDM goals by governmental body type

In addition to analysis by type of governmental body, the data were analysed by post level to show distribution of responses. The data were captured onto Excel under the post levels as well as response categories, calculated, analysed, and presented. The analysis revealed that from the 121 “yes” respondents, 67 (55%) were directors; 22 (18%) chief directors; nine (7%) senior managers; eight (7%)

municipal managers; five (4%) members; three (2%) deputy directors general; three (2%) chief executive officers; two (2%) head of departments; and two (2%) executive directors. The analysis additionally revealed that from the 42 “no” respondents 32 (76%) were directors; three (7%) executive directors; two (5%) deputy directors general; two (5%) head of departments; two (5%) chief directors and one (2%) a municipal manager. Figure 5.6 presents the results.

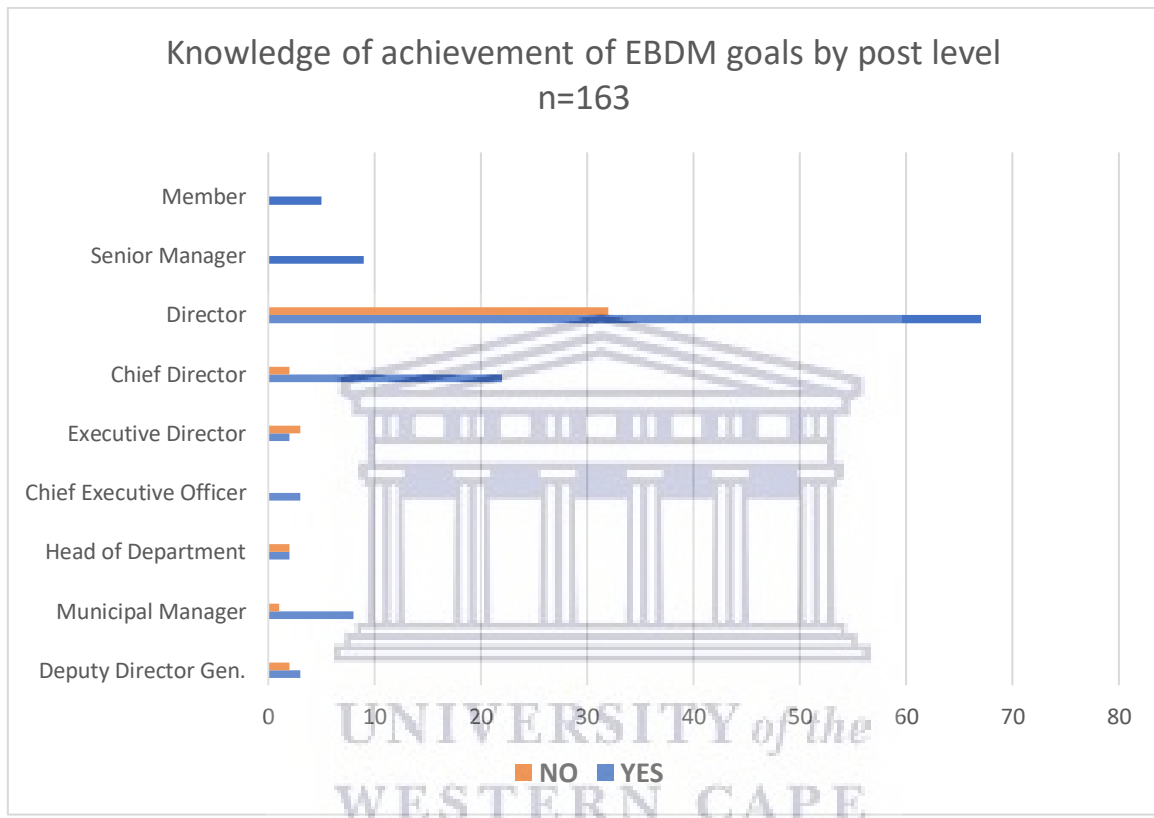


Figure 5.6: Knowledge of achievement of EBDM goals by post level

5.3.1.2 Sources of evidence important for evidence-based decision making

To further establish knowledge of EBDM, respondents were requested to select applicable type/s of sources of evidence which they thought were important in EBDM. Data from the web survey were analysed and calculated automatically by SurveyMonkey and the totals per source of evidence were exported onto Excel. The data from the telephonic survey were coded according to source of evidence; calculated on a separate Excel spreadsheet and added to the total sum of the web survey spreadsheet to

calculate the total sum as well as for presentation. A total of two web survey respondents had skipped this question, resulting in 161 responses. The analysis revealed that performance information was selected as the most important source of evidence with a 24% response rate; followed by research reports (23%); opinions of experienced employees (19%); media reports (12%); service delivery protests (12%); and all of the mentioned sources (10%). Figure 5.7 provides a percentage breakdown of the important sources of evidence.

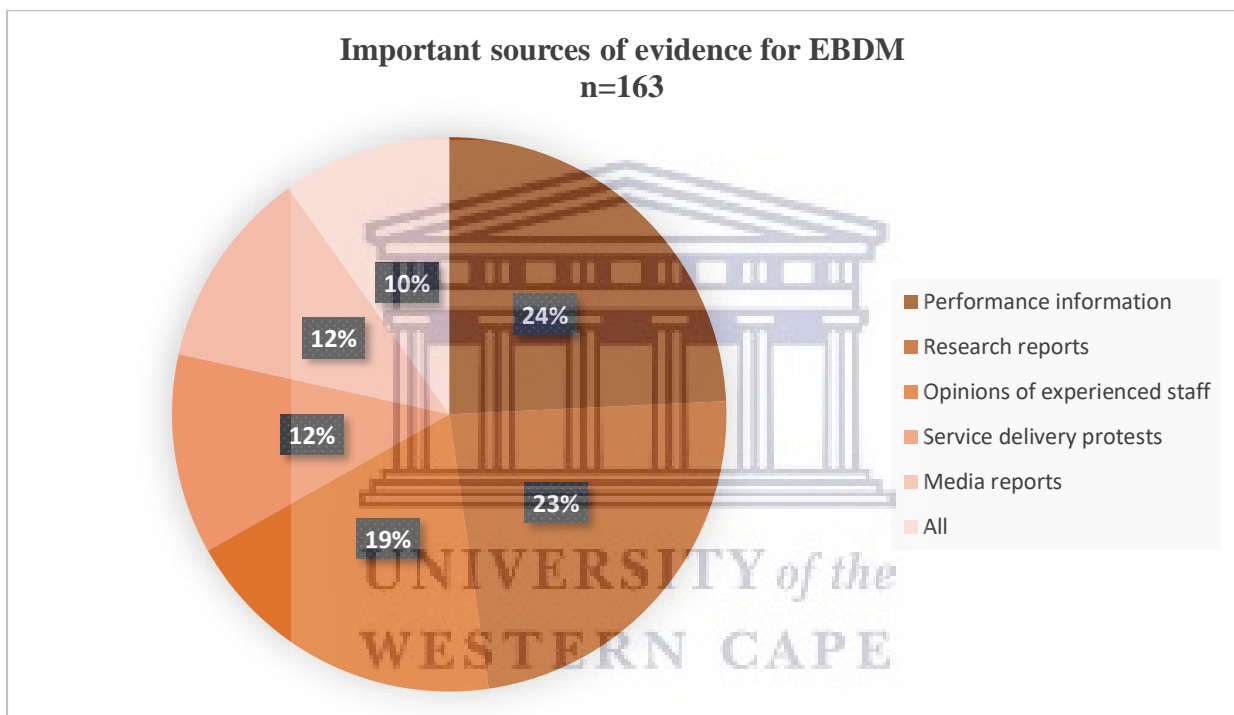


Figure 5.7: Important sources of evidence for EBDM

The data were further analysed to determine percentage distribution of responses by governmental body type. The data from both surveys were manually captured on Excel by type of source of evidence and governmental body type. The sum totals were used to calculate percentages of each evidence category on Excel. Table 5.4 presents the results by governmental body to show percentage distribution of responses, while Figure 5.8 presents a graphical comparative distribution of the data by governmental body type.

Table 5.4: Important sources of evidence for EBDM by governmental body type

n=163			
Type of evidence	Responses by governmental body type		
	Municipalities	Government departments	Public entities
Performance information	47%	42%	11%
Research reports	48%	44%	8%
Opinions of experienced employees	53%	47%	0%
Service delivery protests	62%	38%	0%
Media reports	56%	36%	8%
All	12%	76%	12%

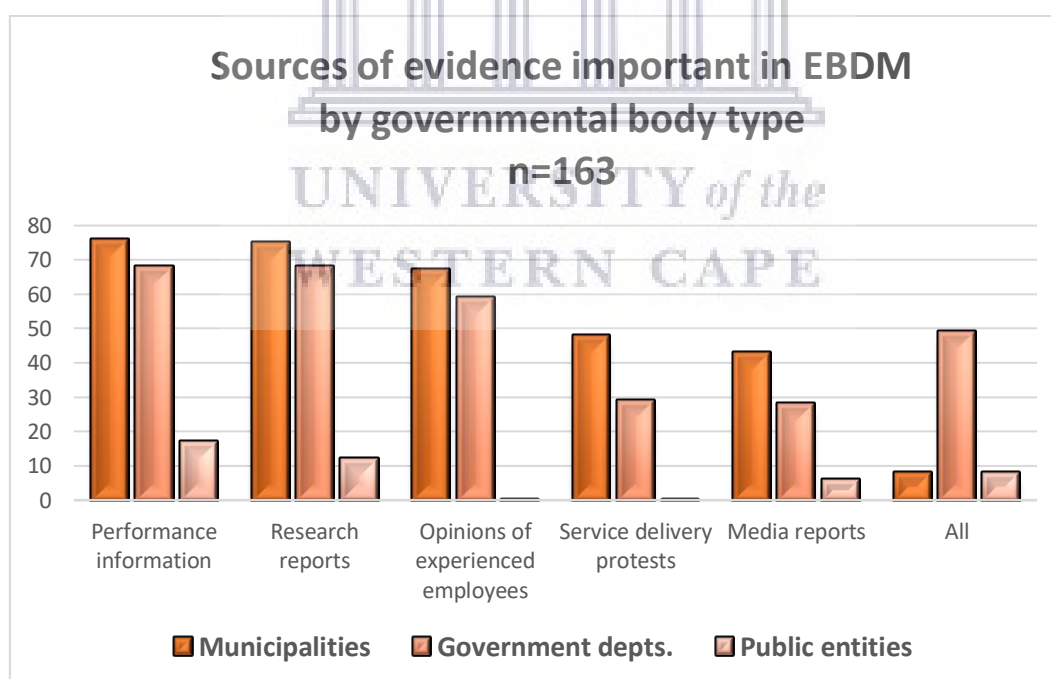


Figure 5.8: Sources of evidence important in EBDM by governmental body type

The data of each evidence category were further analysed according to post level type. The percentages of the totals were calculated automatically on an Excel spreadsheet and presented on a table to show the distribution of responses. Table 5.5 present the results.

Table 5.5: Important sources of evidence for EBDM by post level type

n=163									
Type of evidence	Post level type responses								
	Deputy Director General	Municipal Manager	Head of Dept.	Chief Executive Officer	Executive Director	Chief Director	Director	Senior Manager	Member
Performance information	3%	5%	2%	2%	3%	13%	63%	5%	3%
Research reports	2%	5%	2.5%	2%	2.5%	16%	62%	5%	3%
Opinions of experienced employees	1.5%	6%	3%	1.5%	3%	9%	75.5%	0.8%	0%
Service delivery protests	1.3%	9%	1.3%	0%	4%	0%	84.4%	0%	0%
Media reports	3%	3%	3%	1%	0%	0%	80%	8%	1%
All	0%	0%	2%	0%	3%	3%	83%	6%	11%

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5.3.2 Use of sources of evidence by senior managers to decide on service delivery programs

The purpose of this objective was to assess whether senior managers used sources of evidence to decide on service delivery programs. To achieve the objective, respondents were required to select the applicable source/s of evidence they had consulted, to determine if they had indeed used evidence for service delivery decision-making. Telephonic survey responses were coded and captured onto Excel for calculation, analysis and presentation. The web survey data was exported onto Excel and totals of both modes were combined and the results presented on a graph because of its ability to describe frequency distribution in a clear and understandable manner (Babbie, 2017, 428). One web survey respondent had skipped this question; therefore, 162 responses were received. The question requested respondents to select all applicable answers. The analysis revealed that all the 162 respondents had used performance

information to make service delivery decisions; followed by 143 who had used research reports; 69 indicated that they had used the opinions of experienced staff; 33 selected service delivery protests; 30 had used media reports; while 48 indicated that they had used all sources from the list. The extent of usage of evidence was measured by frequency of responses for each source of evidence. Figure 5.9 presents the results.

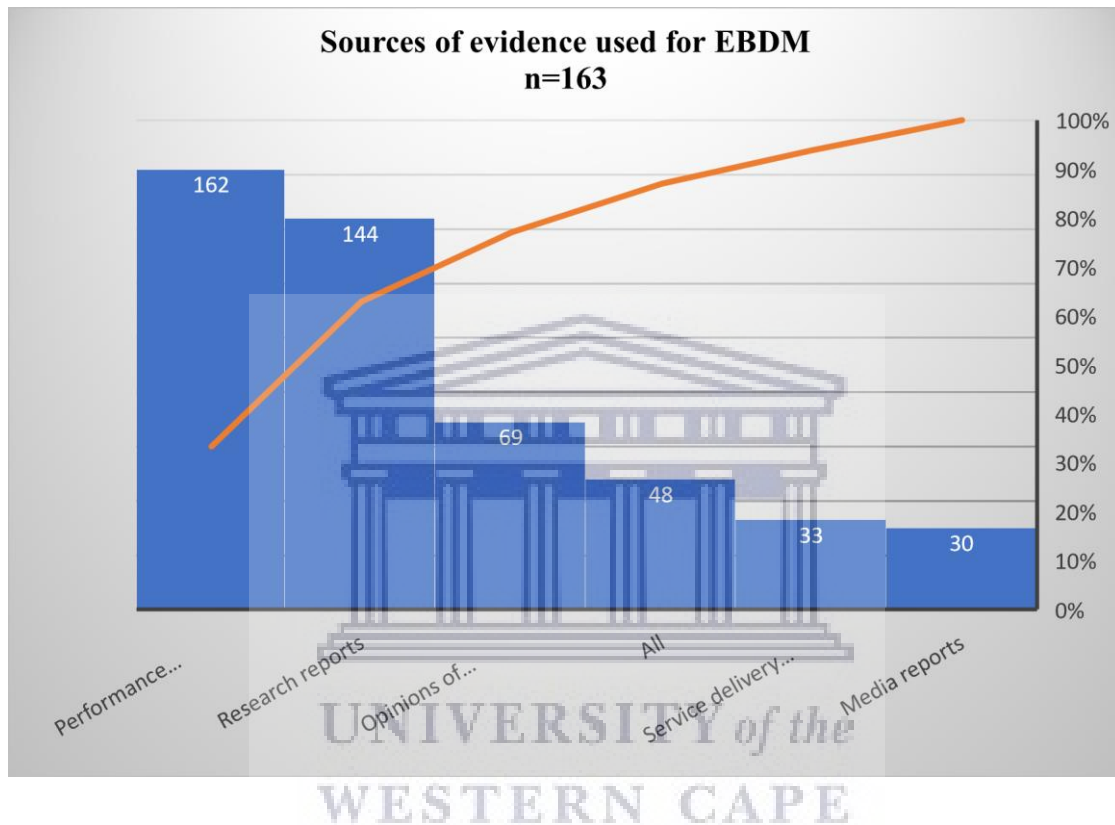


Figure 5.9: Sources of evidence used for EBDM

The graph shows frequency of responses in a descending order as well as their percentages. The data were further analysed by type of governmental body to show distribution of responses. The responses were captured on Excel according to governmental body, calculated, analysed and presented. Table 5.6 and Figure 5.10 presents the percentage distribution of responses.

Table 5.6: Percentage distribution of the use of sources of evidence for EBDM by governmental body type

n=163			
Type of evidence	Governmental body type		
	Municipalities	Government departments	Public entities
Performance information	47%	43%	17%
Research reports	46%	48%	6%
Opinions of experienced employees	74%	23%	2%
Service delivery protests	73%	27%	0%
Media reports	40%	27%	33%
All	50%	40%	10%

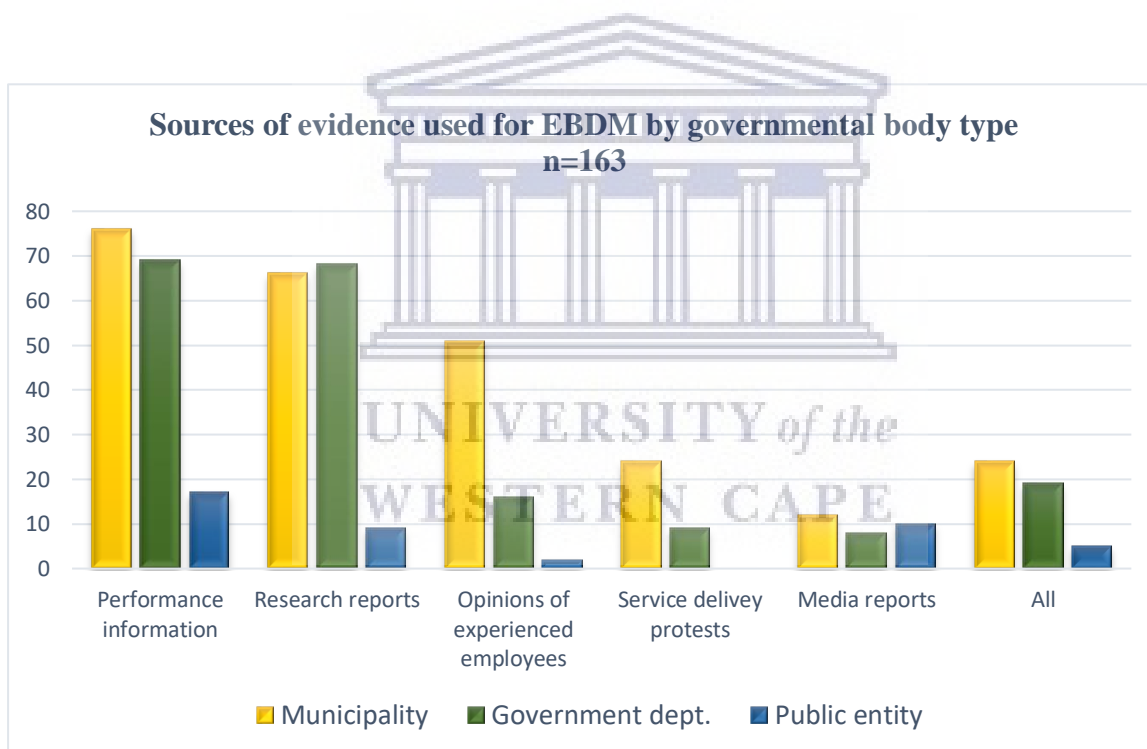


Figure 5.10: Sources of evidence used for EBDM by governmental body type

The responses were further analysed to show distribution by post level type. The data were analysed on Excel, calculated and presented. Table 5.7 presents the percentage breakdown of the results while Figure 5.11 shows the graphical distribution of responses.

Table 5.7: Percentage breakdown of the use of sources of evidence for EBDM by post level type

n=163									
Type of evidence	Post level type responses								
	Deputy Director General	Municipal Manager	Head of Dept.	Chief Executive Officer	Executive Director	Chief Director	Director	Senior Manager	Member
Performance information	3%	5%	2%	1%	2%	16%	63%	5%	3%
Research reports	0.7%	6.2%	2%	2%	2%	9%	69%	6.3%	2.8%
Opinions of experienced employees	0%	3%	3%	3%	3%	0%	88%	0%	0%
Service delivery protests	0%	4%	0%	0%	3%	0%	93%	0%	0%
Media reports	0%	0%	7%	0%	0%	20%	40%	23%	10%
All	0%	4%	0%	0%	2%	4%	79%	0%	11%

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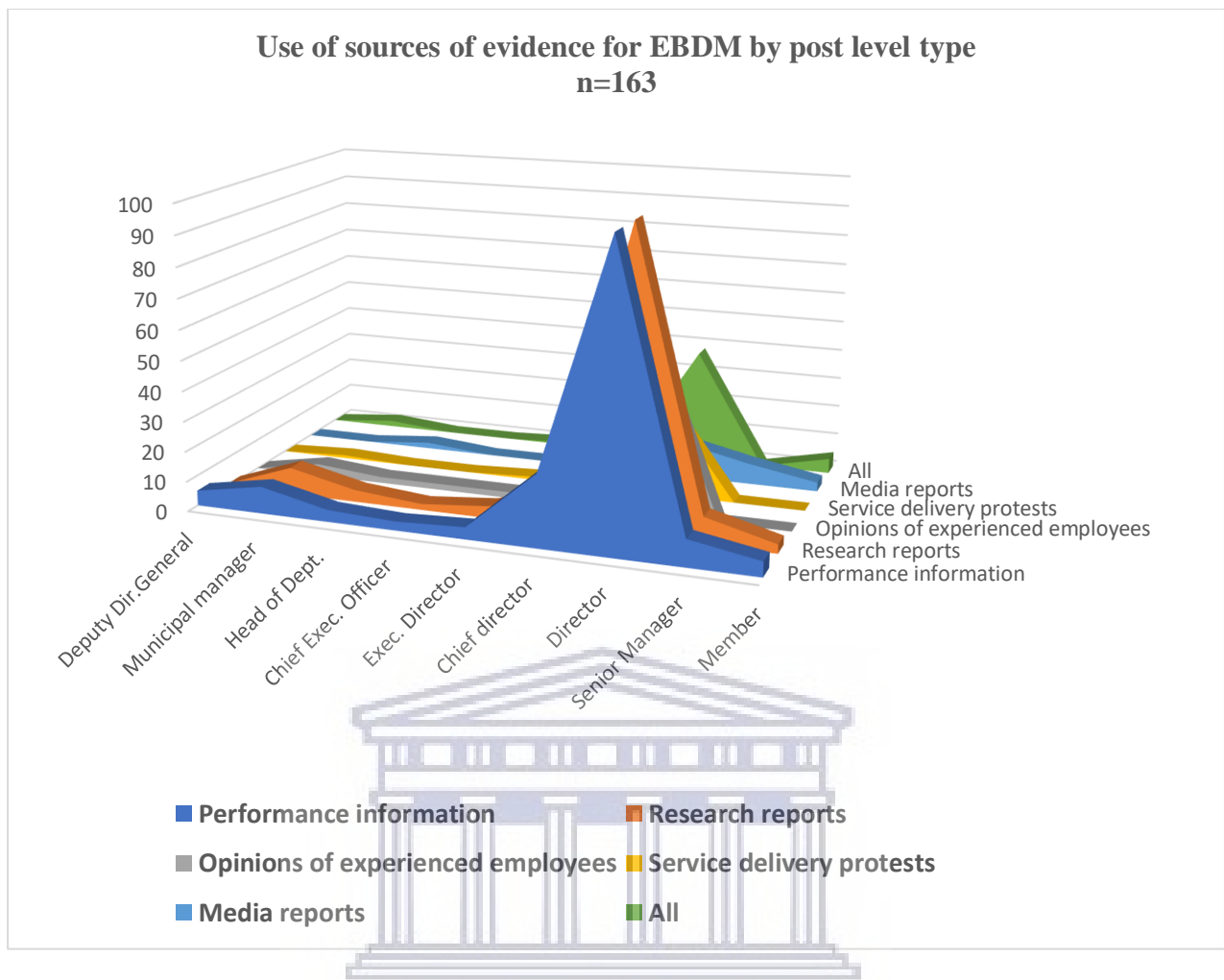


Figure 5.11: Use of sources of evidence for EBDM by post-level type

5.3.3 Channels where evidence was sought

The literature review in Chapter Two revealed that one of the causes for minimal use of evidence for decision-making was its availability and access. However, the findings in 5.2.2 showed that sources of evidence were used by respondents in the current study. The Continuum Model for Evidence Use promotes the use of a variety of channels or medium for the wide distribution of evidence so that it is available for use. The purpose of this objective was to establish where the sources of evidence were sought to determine the ease of availability and access or none thereof. Respondents were required to select the applicable access channel/s they had sought evidence from. A total of nine web survey respondents skipped this question, therefore, 154 responses were received. Data from the web survey were exported onto Excel while data from the telephonic survey were captured manually by the researcher on the same Excel spreadsheet as the web survey data. The combined data were calculated

and presented on a chart. The analysis revealed that 152 (44%) respondents selected their organisation's registry; 149 (43%) had sought evidence from their organisation's website; 23 (7%) consulted websites of other organisations; twelve (3%) university websites; and nine (3%) from a library. Figure 5.12 presents a breakdown of responses:

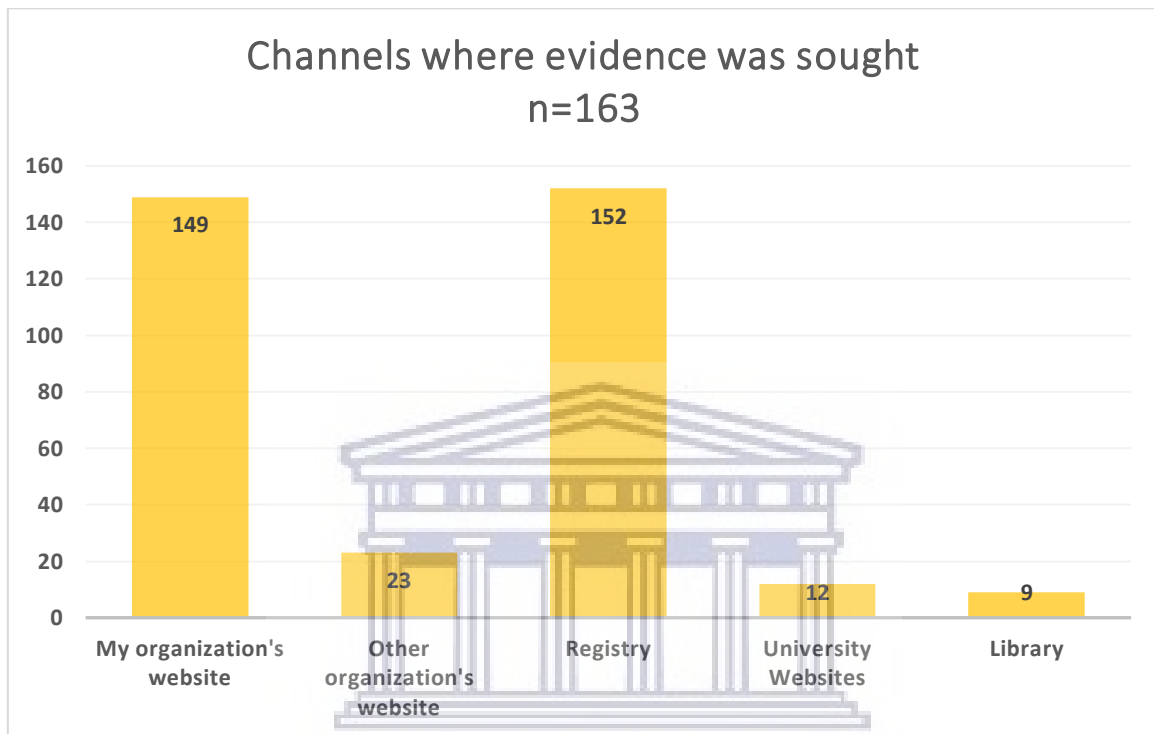


Figure 5.12: Channels where evidence was sought

The findings in Figure 5.12 show that respondents accessed evidence mostly from their respective registries and websites. Furthermore, the findings show that though other organisation's websites and libraries were used as access channels, respondents did not seem to use them much. For further analysis, to show distribution by type of governmental body, the data were coded and captured onto Excel under type of governmental body, calculated and presented. The analysis revealed that 52% of the respondents who selected their 'own organizational website' were from municipalities; 45% from government departments; and 3% were from public entities. Respondents who selected 'other organisations' websites were composed of 39% from municipalities; 31% from government departments; and 31% from public entities. A total of 52% respondents who had selected 'my organisation's registry were from municipalities; 47% from government departments; and 1% from public entities. Respondents

who had selected 'university websites' were composed of 67% from municipalities; 33% from governmental bodies; and none from public entities. 'Library' was selected by 40% respondents from governmental bodies; 60% from public entities; and none from municipalities. Table 5.8 presents the percentage distribution of results of the analysis and Figure 5.13 the graphical distribution of the results.

Table 5.8: Percentage distribution of responses on channels to access evidence by governmental body

n=163

Channel to access evidence	Governmental body type		
	Municipalities	Government departments	Public entities
Own organizational website	52%	45%	3%
Other organizations' websites	38%	31%	31%
Own organization's registry	52%	47%	1%
University websites	67%	33%	0%
Library	0%	40%	60%

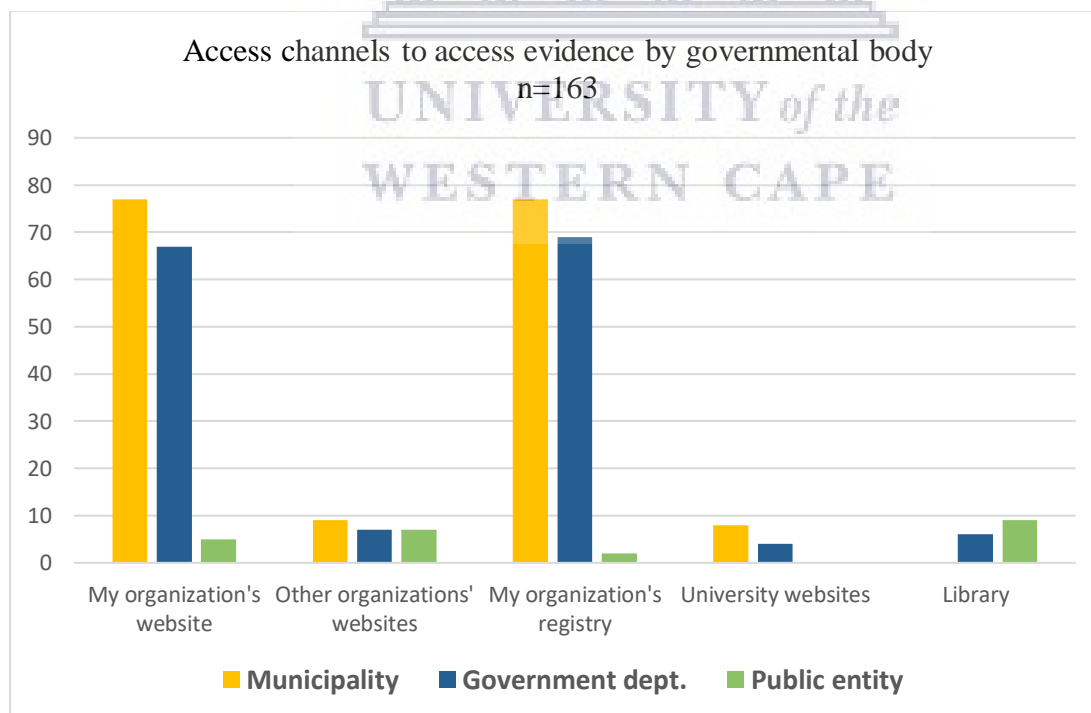


Figure 5.13: Access channels to access evidence by governmental body

The responses were further calculated, analysed and presented on Excel to show their distribution by post level type. Table 5.9 presents the percentage breakdown of the results while Figure 5.14 shows the graphical distribution of responses.

Table 5.9: Percentage distribution of channels to access evidence by post level type

n=163									
Access channel	Post level type responses								
	Deputy Director General	Municipal Manager	Head of Dept.	Chief Executive Officer	Executive Director	Chief Director	Director	Senior Manager	Member
Own organization's website	3%	6%	3%	2%	3%	16%	60%	6	1%
Other organizations' websites	0%	22%	0%	13%	4%	0%	30%	22%	9%
My organization's registry	4%	6%	3%	1%	4%	16%	62%	4%	0%
University websites	25%	25%	0%	0%	8%	0%	42%	0%	0%
Library	6%	0%	0%	12%	0%	19%	19%	31%	13%

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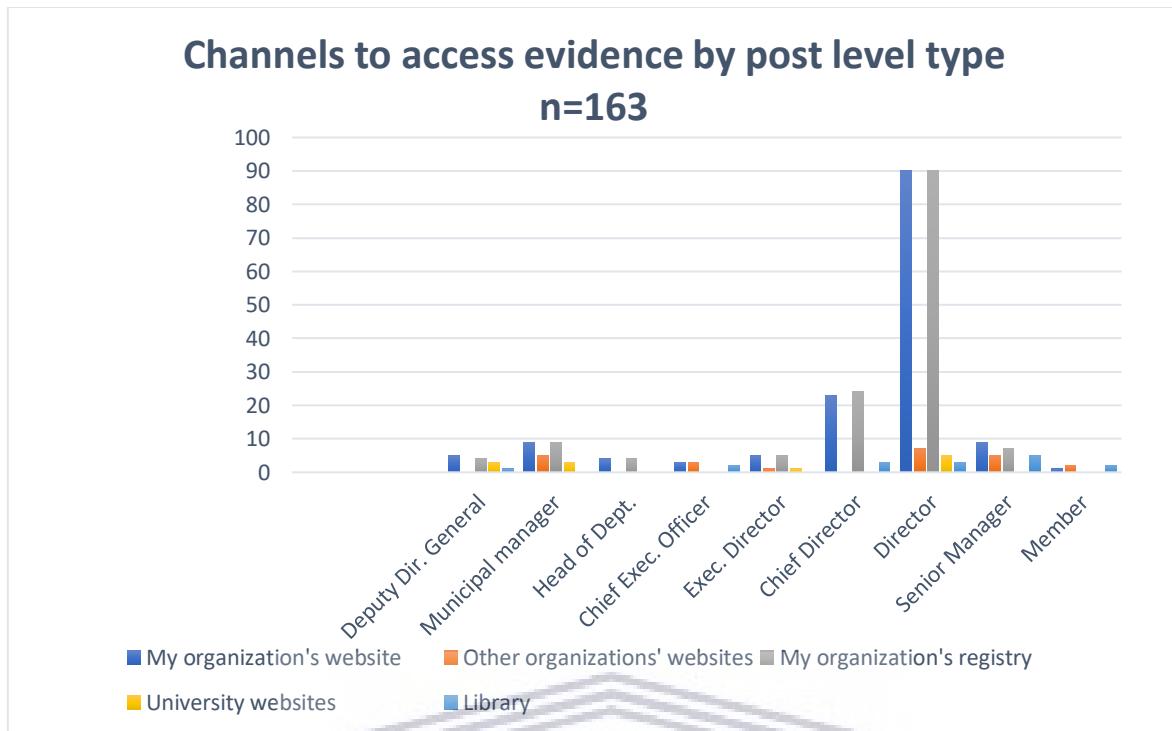


Figure 5.14: Channels to access evidence by post level type

5.3.4 The use of records for evidence-based decision-making

The purpose of this objective was to determine the extent to which records were used for EBDM. The following sub-sections present the analysis of responses to the questions.

5.3.4.1 Types of records available in Western Cape governmental bodies

To achieve this objective, a question was asked to find out the types of records available in the respondents' organisations. The question was in line with the Continuum Model of Evidence Use which stresses decision makers' knowledge of what counts as evidence. Respondents were requested to select all applicable type of records available in their organisations. Data from the telephonic survey were coded and captured onto Excel and combined with web survey data which had been analysed and then exported from SurveyMonkey onto Excel. A total of four web survey respondents had skipped this question, therefore 159 completed responses were received. The data analysis showed that annual reports were selected by 157 (22%) respondents; meeting minutes by 152 (22%) respondents; internal and external correspondence also by 152 (22%) respondents; annual performance plans were selected

by 149 (21%) respondents; and 92 (13%) respondents selected audio-visual material as records available in their organisations. Figure 5.15 presents the results:

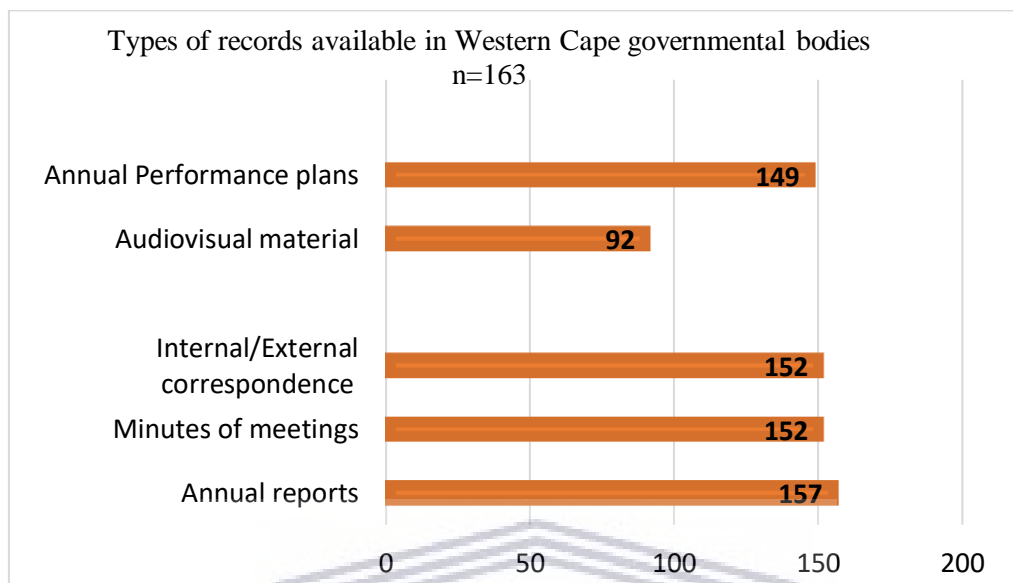


Figure 5.15: Types of records available in Western Cape governmental bodies

The data were further analysed by governmental body on Excel, to show distribution of responses by governmental body type. The analysis revealed that in municipalities, 72 (45%) respondents selected annual reports; 66 (43%) selected meeting minutes; 66 (44%) internal/external correspondence; 61 (66%) audio-visual material; and 64 (43%) selected annual performance plans. In government departments, annual reports received 69 (44%) responses; meeting minutes 69 (46%); internal/external correspondence 69 (45%); audio-visual material 24 (26%); and annual performance plans 68 (46%) responses. In public entities, annual reports received sixteen (11%) responses; meeting minutes seventeen (11%); internal/external correspondence seventeen (11%); audio visual material seven (8%); and annual performance plans seventeen (11%) responses. Table 5.10 presents the percentage distribution of results, while Figure 5.16 presents the graphical distribution for clarification.

Table 5.10: Percentage distribution of the types of records available by governmental body type

n=163			
Types of records	Governmental body type		
	Municipalities	Government departments	Public entities
Annual reports	45%	44%	11%
Meeting minutes	43%	46%	11%
Internal/external correspondence	44%	45%	11%
Audio-visual material	66%	26%	8%
Annual performance plans	43%	46%	11%

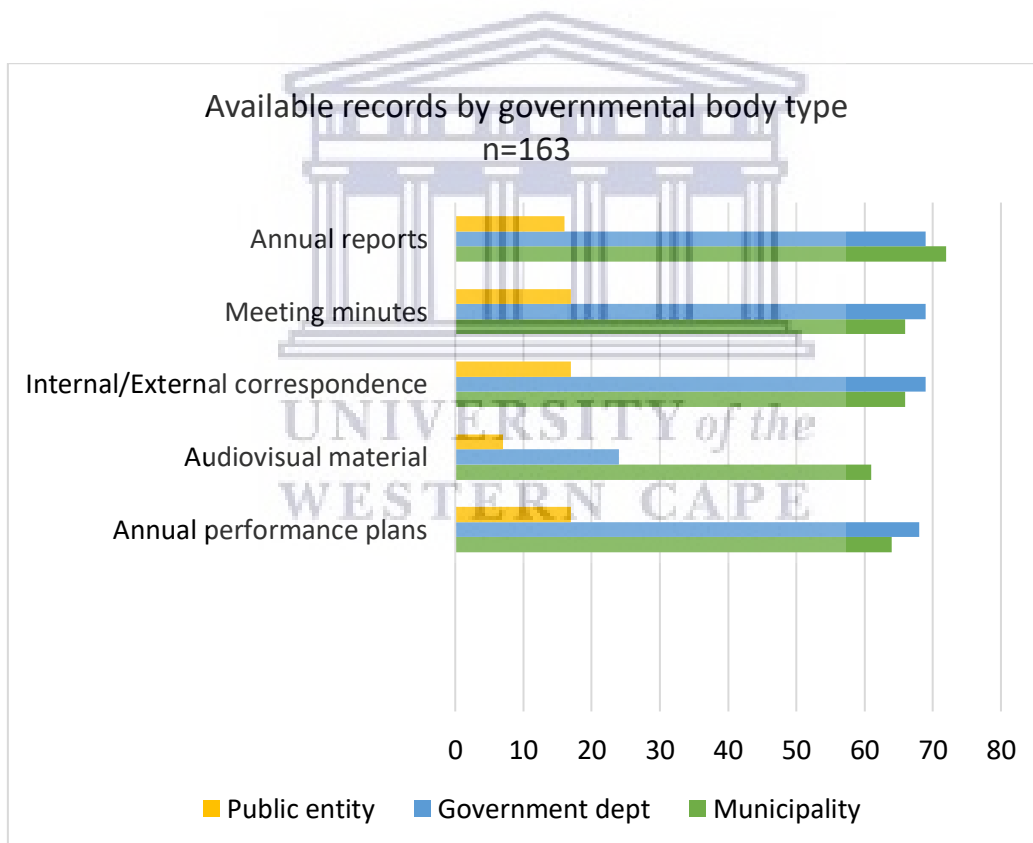


Figure 5.16: Available records by governmental body type

Additionally, the data was analysed to show the distribution of responses across post level types. The data were coded and entered manually onto Excel and calculations were done automatically for percentages and to present the results graphically. Table 5.11 presents the percentage distribution and Figure 5.17, a graphical presentation.

Table 5.11: Percentage breakdown of types of records available by post level type

n=163									
Type of records	Post level type responses								
	Deputy Director General	Municipal Manager	Head of Dept.	Chief Executive Officer	Executive Director	Chief Director	Director	Senior Manager	Member
Annual Performance Plans	3%	6%	2%	2%	3%	16%	59%	6%	3%
Audio-visual material	2%	6%	2%	2%	3%	3%	77%	3%	2%
Internal/External correspondence	3%	6%	2%	2%	3%	14%	61%	6%	3%
Meeting minutes	3%	6%	2%	2%	3%	16%	59%	6%	3%
Annual reports	3%	6%	2%	2%	3%	16%	59%	6%	3%

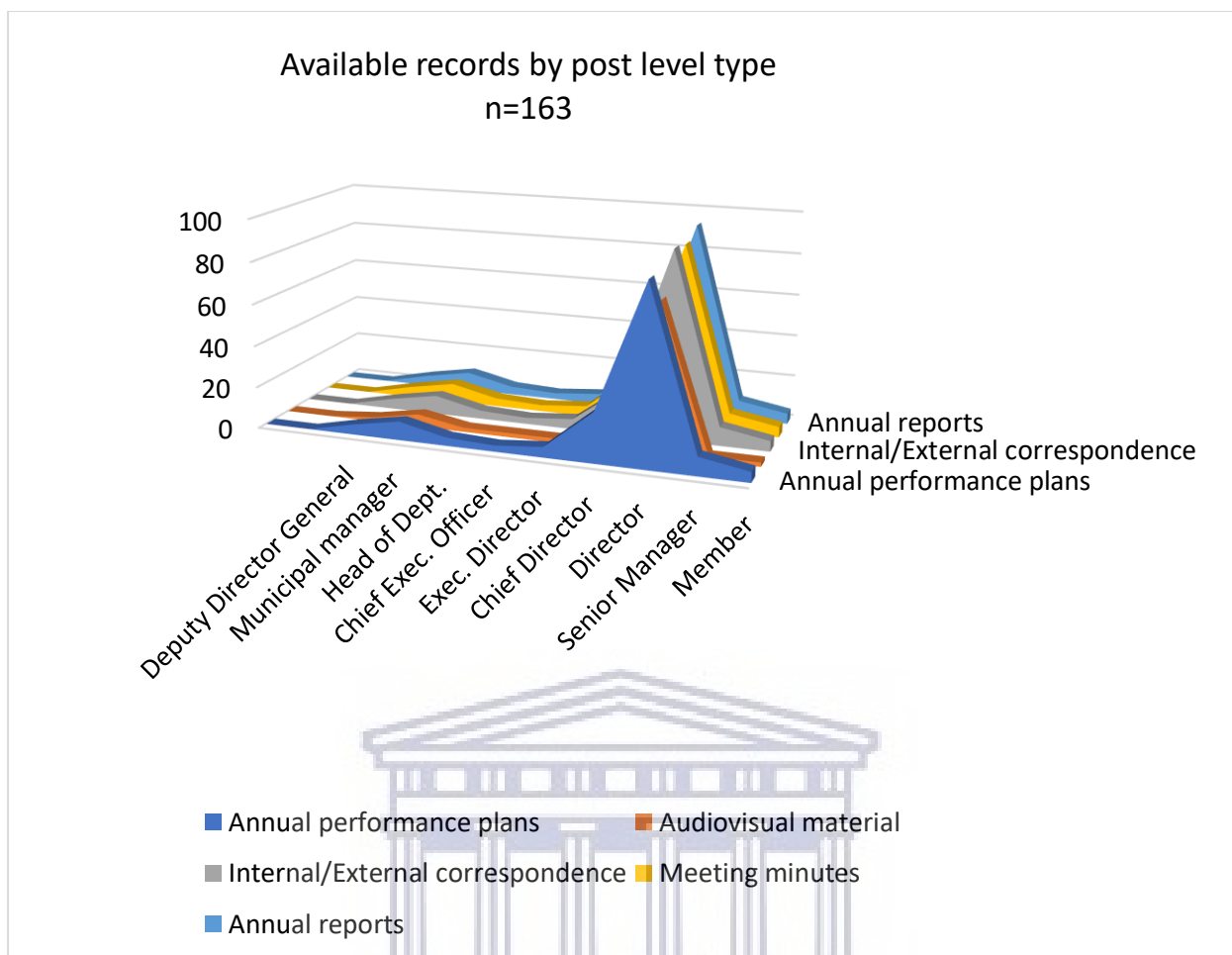
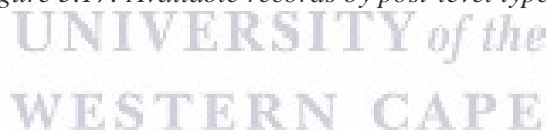


Figure 5.17: Available records by post-level type



5.3.4.2 Frequency of use of records for EBDM in Western Cape governmental bodies

It has been mentioned in Chapter One that records management researchers had discovered that although the use of records was considered important to make service delivery decisions, records were seldom used for decision-making. The research question for the study was the extent to which records were used by senior managers in Western Cape governmental bodies for EBDM. To answer the research question, respondents were required to select the frequency they used records by selecting one answer from a list which was composed of, always; seldom; never; or sometimes. SurveyMonkey analysed the web survey data and the telephonic survey data was coded; captured on Excel. Results of both surveys were added and captured by response categories on Excel for calculation, analysis and presentation. During the analysis, it was discovered that two web survey respondents had skipped this question;

therefore 161 responses were received. Of the respondents, 116 (72%) indicated that they always consulted records to make decisions; while 40 (25%) sometimes used records; and five (3%) seldom used records. None of the respondents selected “never”. Figure 5.18 presents the findings.

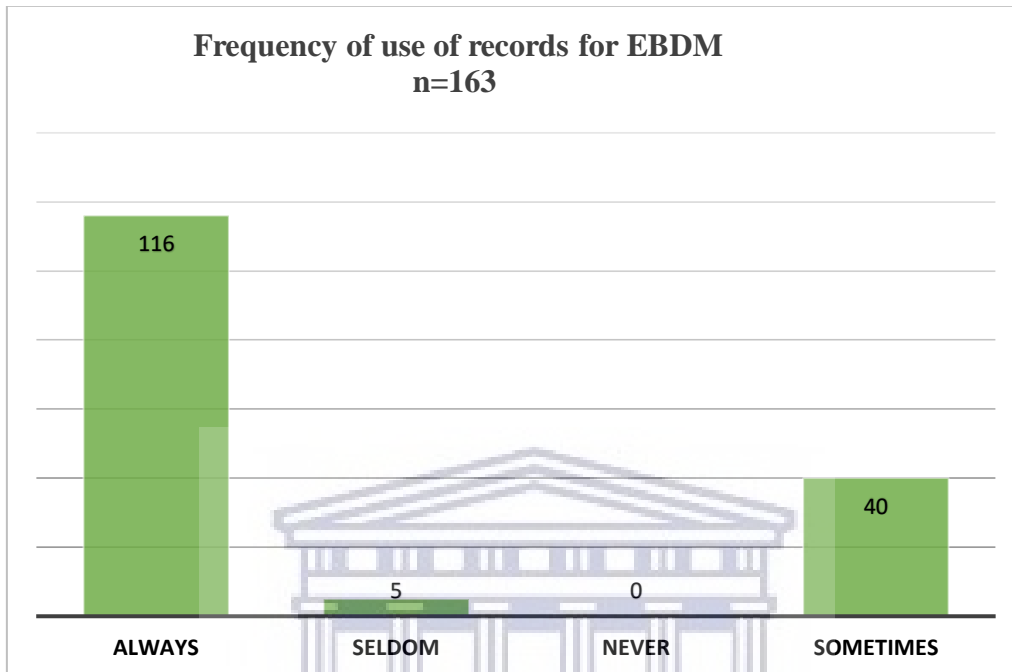


Figure 5.18: Frequency of the use of records for EBDM

The data from both surveys was further coded; captured by governmental body type on Excel; analyzed and presented to determine distribution of responses. The results showed that 52 (45%) of respondents who believed they always used records for EBDM were from municipalities; 56 (48%) were from government departments; and eight (7%) from public entities. A total of 22 (55%) respondents that selected ‘sometimes’ were from municipalities; fourteen (35%) from government departments; and four (10%) from public entities. The option ‘seldom’ was selected by two (40%) respondents from municipalities; two (40%) from government departments; and one (20%) respondent from a public entity. None (0%) of the respondents believed that they had used records for EBDM. Table 5.12 presents the percentage distribution of responses by governmental body and Figure 5.19 is a graphical presentation of the distribution of the results.

Table 5.12: Percentage breakdown of responses of the frequency of the use of records by governmental body type

n=163			
Frequency	Governmental body type		
	Municipalities	Government departments	Public entities
Always	45%	48%	7%
Sometimes	55%	35%	10%
Seldom	40%	40%	20%
Never	0%	0%	0%

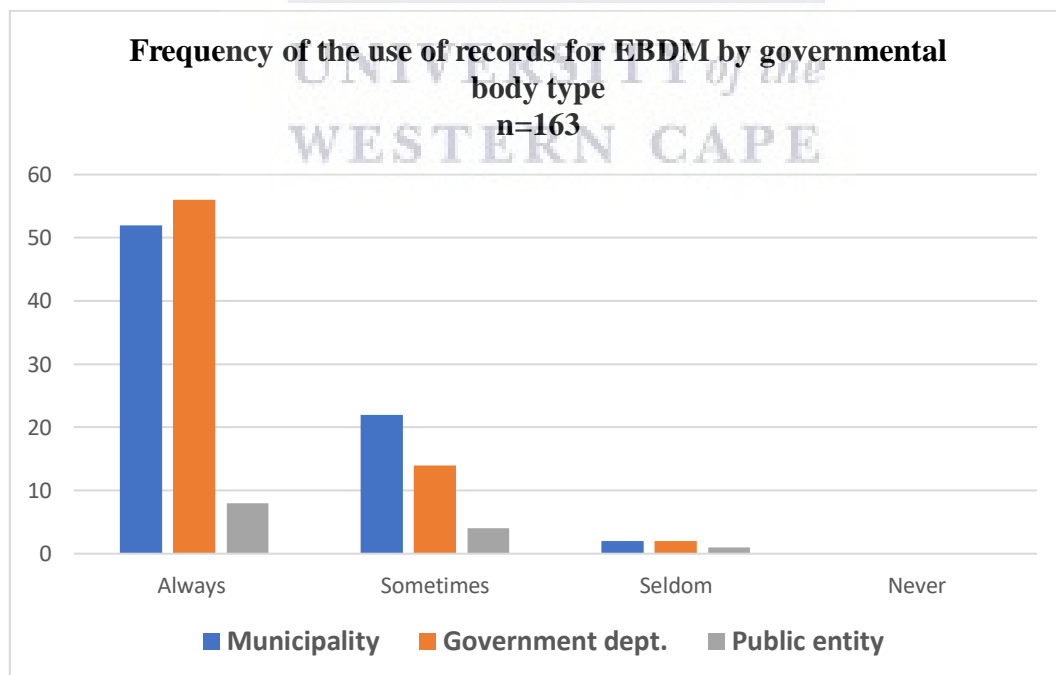


Figure 5.19: Frequency of use of records for EBDM by governmental body type

In addition, the data was further analysed to show distribution of responses by post level. The percentage distribution of the results is presented in Table 5.13.

Table 5.13: Use of records for EBDM by post level type

n=163									
Type of records	Post level type responses								
	Deputy Director General	Municipal Manager	Head of Dept.	Chief Executive Officer	Executive Director	Chief Director	Director	Senior Manager	Member
Always	3%	3%	2%	1%	3%	19%	59%	8%	2%
Sometimes	0%	7%	2%	5%	3%	3%	75%	0%	5%
Seldom	20%	40%	20%	0%	0%	0%	0%	0%	20%
Never	0%	0%	0%	0%	0%	0%	0%	0%	0%

5.3.4.3 Records consulted for decision-making during the previous financial year

To further determine the use of records for EBDM, the respondents were requested to indicate the types of records they had used for decision-making in the previous financial year, that is 2018/19. A list of type of records was provided from which the respondents could select the applicable ones. A total of 160 responses were received, therefore, three web survey respondents had skipped this question. Data was coded and captured on Excel according to type of record, calculated, analysed and presented. A pie chart (Figure 5.20) was generated to present results by percentage. From the responses, annual reports

were selected by 154 (29%) respondents; followed by annual performance plans selected by 154 (29%) respondents; internal and external correspondence were selected by 112 (21%) respondents; meeting minutes by 105 (19%); and audio-visual material selected by 14 (3%) respondents.

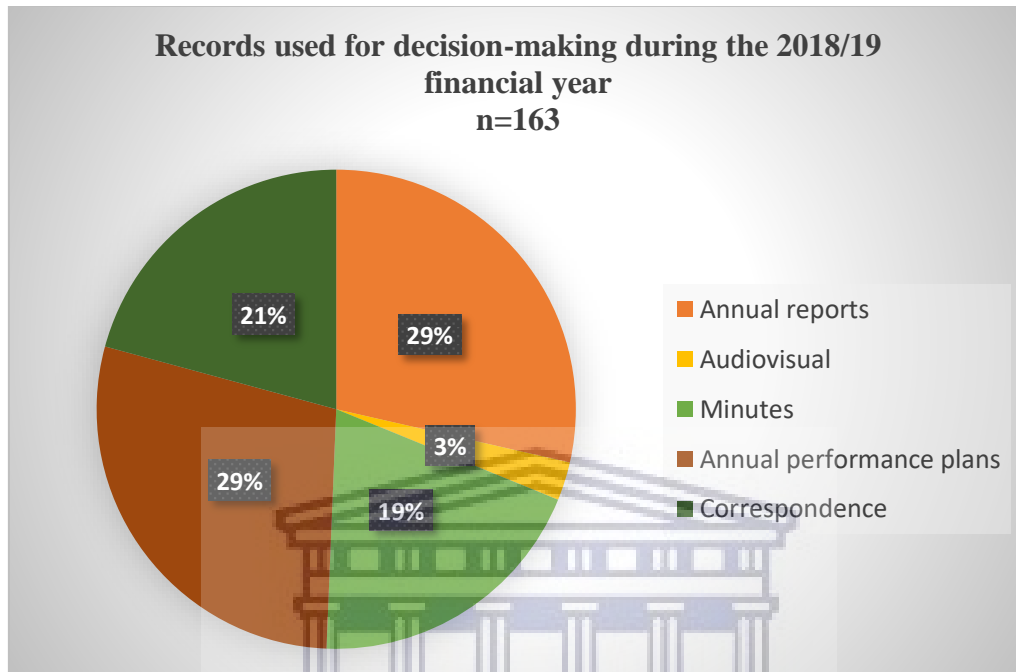


Figure 5.20: Types of records used for decision-making during the 2018/19 financial year

The data shows that annual reports and annual performance plans were the most consulted records to make decisions during the previous financial year. Respondents showed that they consulted correspondence and meeting minutes to a lesser extent. The data shows that audio-visual materials were the least consulted record type. To show distribution by governmental body the data was captured according to governmental body type on Excel, calculated. Table 5.14 presents the percentage distribution and Figure 5.21, the graphical distribution of responses.

Table 5.14: Types of records consulted for EBDM during the 2018/19 financial year by governmental body type

n=163			
Type of records	Governmental body type responses		
	Municipalities	Government departments	Public entities
Annual reports	47	40%	13%
Meeting minutes	57%	43%	0%
Internal/External correspondence	46%	48%	6%
Audio-visual material	85%	15%	0%
Annual performance plans	50%	42%	8%

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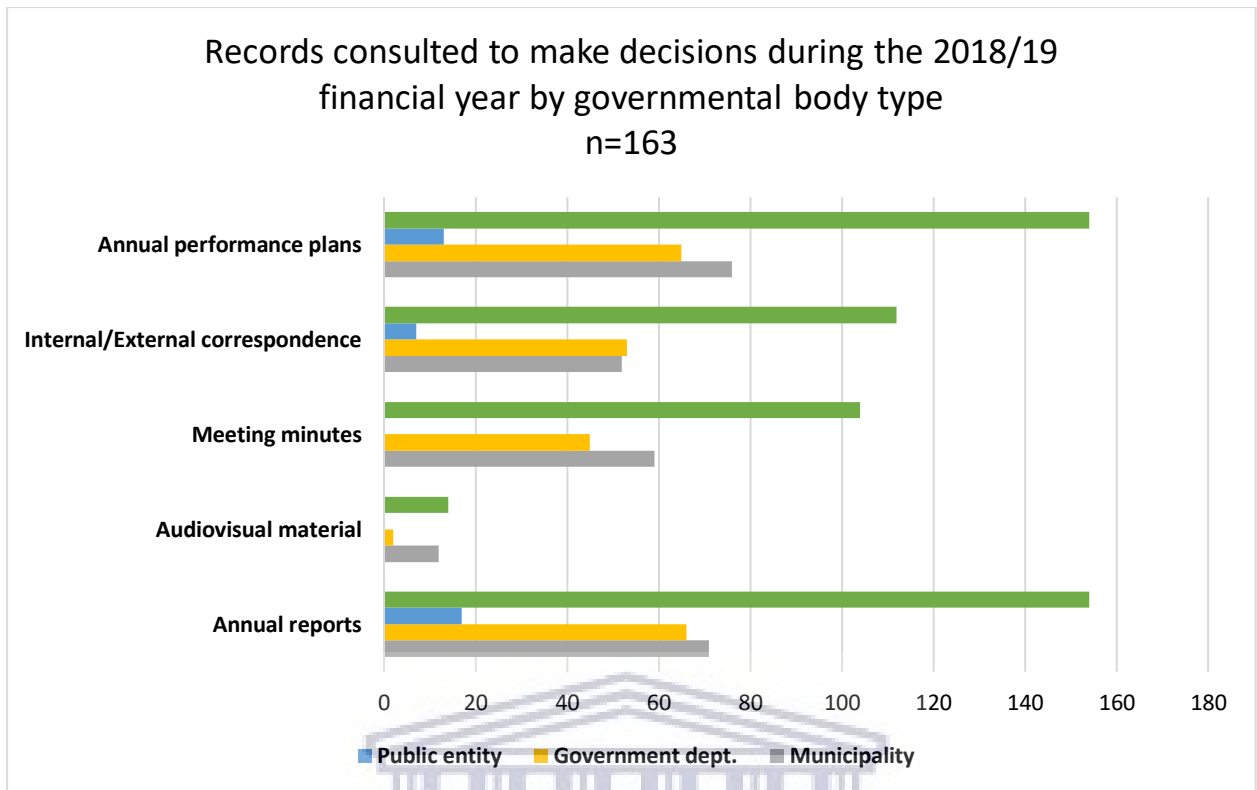


Figure 5.21: Records consulted to make decisions during the 2018/19 financial year by governmental body type

The data was further analysed to display distribution of responses by post level type to show records consulted during the previous financial year for decision-making. Table 5.15 presents the percentage breakdown of responses.

Table 5.15: Records consulted for EBDM during the 2018/19 financial year by post level type

n=163									
Type of records	Post level type responses								
	Deputy Director General	Municipal Manager	Head of Dept.	Chief Executive Officer	Executive Director	Chief Director	Director	Senior Manager	Member
Annual Performance Plans	4%	6%	3%	2%	3%	16%	58%	6%	2%
Audio-visual material	7%	28%	0%	0%	22%	7%	36%	0%	0%
Internal/External correspondence	3.5%	6%	3.5%	3%	3.5%	19%	58%	3.5%	0%
Meeting minutes	4%	9%	3%	0%	4%	23%	57%	0%	0%
Annual reports	1%	6%	1%	2%	4%	16%	61%	6%	3%

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5.3.4.4 Importance of records for service delivery decisions

Respondents were requested to indicate whether they considered records to be important to make service delivery decisions, by selecting one applicable answer from: strongly agree; agree; neither agree nor agree; disagree or strongly disagree. The question was to determine whether the respondents after using records, felt that it was important to use them or not. Three web survey respondents skipped the question; therefore 160 responses were received. The responses were captured on Excel according to the response categories, calculated and analysed. A pie chart was generated to present the data. A total of 134 (84%) respondents strongly agreed that records are important for EBDM while 26 (16%) agreed. None of the respondents neither agreed nor disagreed; disagreed; or strongly disagreed. Figure 5.22 presents a percentage breakdown of responses:

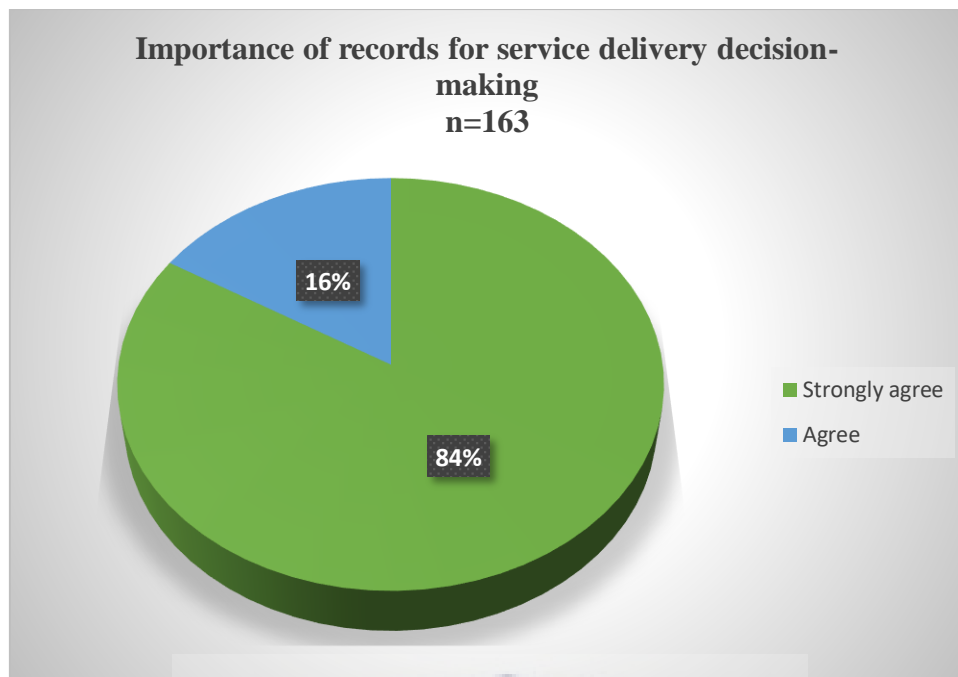


Figure 5.22: Importance of records for service delivery decision-making

Additionally, in order to determine the distribution of responses across governmental body types, the data were captured on Excel according to the response categories under each type of governmental body; counted; and analysed. The results showed that 61(46%) respondents from municipalities; 62 (46%) from government departments; and eleven (8%) from public entities, strongly agreed that records are important for making service delivery decisions. A total of fourteen (54%) respondents from municipalities; six (23%) from government departments; and six (23%) from public entities selected the “agreed” option. Table 5.16 presents the percentage breakdown of responses by type of governmental body and Figure 5.23 presents a graphical distribution.

Table 5.16: Importance of the use of records as sources of evidence for service delivery decisions by type of governmental body type

Percentage breakdown of responses to the importance of records for service delivery decision-making by type of governmental body n=163			
Response	Type of governmental body responses		
	Municipalities	Government departments	Public entities
Agree	54%	23%	23%
Strongly agree	46%	46%	8%
Disagree	0%	0%	0%
Strongly disagree	0%	0%	0%
Neither agree nor disagree	0%	0%	0%

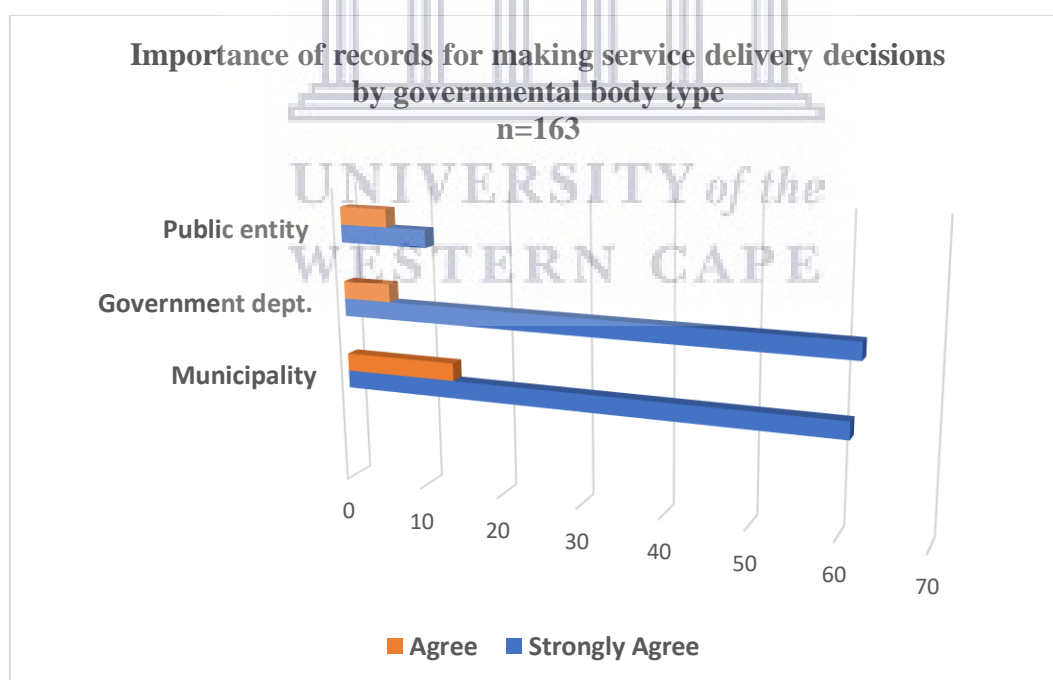


Figure 5.23: Importance of the use of records as sources of evidence for decision-making by governmental body type

In addition, the data were analysed by post level type to determine distribution of responses among senior managers. Table 5.17 presents the results of the analysis.

Table 5.17: Importance of the use of records as sources of evidence for decision-making by post level type

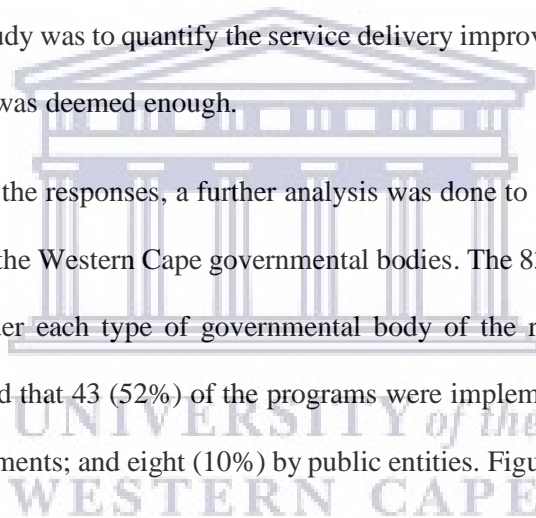
Percentage breakdown of responses to the importance of the use of records for service delivery decisions by post level type n=163									
Response category	Post level type responses								
	Deputy Director General	Municipal Manager	Head of Dept.	Chief Executive Officer	Executive Director	Chief Director	Director	Senior Manager	Member
Strongly agree	2%	4%	2%	2%	4%	13%	67%	4%	2%
Agree	4%	12%	0%	0%	0%	21%	43%	12%	8%
Neither agree nor disagree	0%	0%	0%	0%	0%	0%	0%	0%	0%
Disagree	0%	0%	0%	0%	0%	0%	0%	0%	0%
Strongly disagree	0%	0%	0%	0%	0%	0%	0%	0%	0%

5.3.5. Service delivery improvement due to use of records as evidence for EBDM

The purpose of this objective was to determine the impact the use of records as sources of evidence contributed to improved service delivery, by finding out the number of programs implemented after using records as sources of evidence for decision-making. The intention was to validate the responses in 5.2.4. by quantifying the number of service delivery programs. The question to address this objective was qualitative and required respondents to list the implemented programs. One respondent skipped the question; eighteen did not seem to have understood the question because they listed the types of records

instead of the service delivery programs; three did not provide responses because “it was not in their portfolio”; 41 indicated that “all service delivery programs in my organisation are evidenced based” without listing the actual programs. Figure 5.24 presents the responses. A total of 100 (61.3%) usable responses were thus received out of which 83 service delivery improvement programs were noted. For thematic analysis, the service delivery programs were grouped according to the fourteen outcomes of the Medium-Term Strategic Framework (MTSF), which is the national strategic plan of the South African government. More detail on the MTSF and Provincial Strategic Goals of the Western Cape is provided in 7.2.5. The researcher captured the fourteen themes on to an Excel spreadsheet; captured the service delivery programs according to frequency under the relevant themes. However, to protect anonymity of the organisations and participants, the service delivery programs are not presented in the study. The intention of the study was to quantify the service delivery improvement programs, therefore, the numerical data provided was deemed enough.

In addition to the analysis of the responses, a further analysis was done to show the distribution of the service delivery programs in the Western Cape governmental bodies. The 83-service delivery programs were captured on Excel under each type of governmental body of the respondents, calculated and presented. The results showed that 43 (52%) of the programs were implemented by municipalities; 32 (38%) by government departments; and eight (10%) by public entities. Figure 5.24 presents a graphical breakdown of the results.



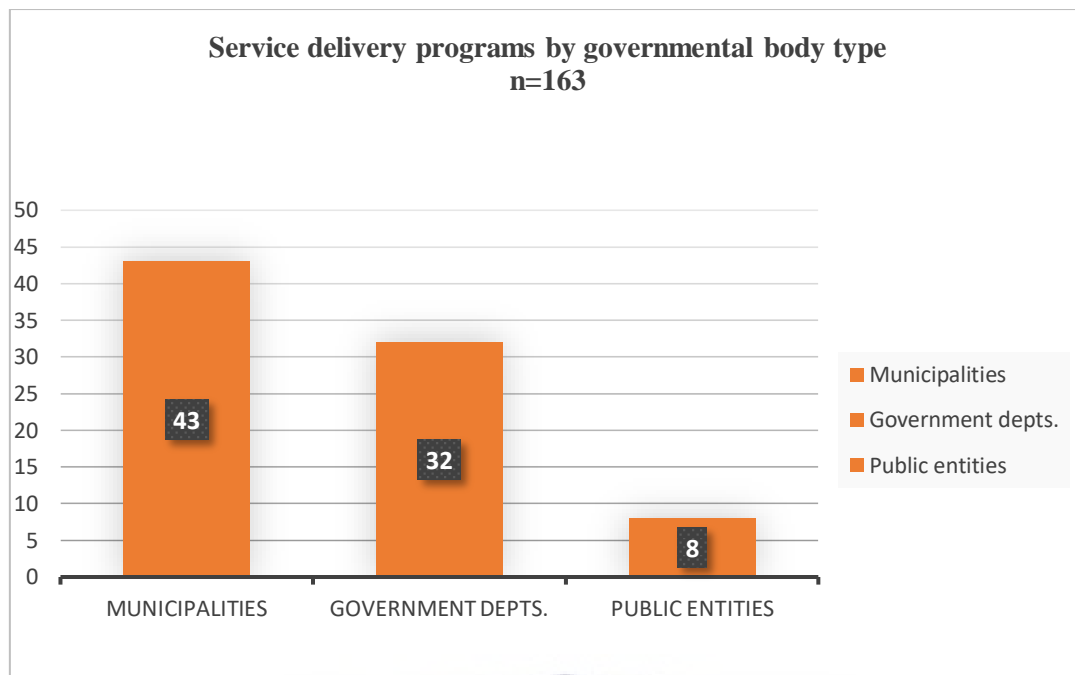


Figure 5.24: Service delivery programs implemented by governmental body type

The following section summarizes the in-depth discussion of the analysis and presentation of data.

5.4 Chapter summary

The chapter provided an in-depth discussion of the analysis of the data collected through web and telephonic surveys. The chapter presented the findings textually, supplemented by tables, graphs and charts. The discussion commenced with analysis of the overall response rate of the study, followed by analysis of the response rate by survey mode; respondents' profiles; governmental body types; and by post levels, to show distribution. Analysis by governmental body and post level was evident in each objective throughout the chapter. Descriptive data analysis was presented according to the objectives of the study. In addition, the qualitative question was thematically analysed to provide the quantity of service delivery programs implemented by using records for EBDM. Chapter Six presents the discussion and interpretation of findings analysed in this chapter.

CHAPTER SIX

DISCUSSION AND INTERPRETATION OF RESEARCH FINDINGS

6.1 Introduction

Chapter Five provided an in-depth discussion of data analysis and presentation of the study results. The previous chapter explained that the data were analyzed using descriptive analysis augmented with a bit of inferential statistics. Textual discussions were supplemented with graphs, charts and tables to present the data. Analysis by governmental body and post level was evident in each objective throughout the chapter for insight. This chapter discusses and interprets the findings of the analysis. Wilmot (2019, 108), posits that all empirical research must provide understanding of what has been studied by interpreting raw data and drawing implications from them. Interpretation of findings helps to make sense of a study and draw inferences from the results to the problem statement (Mosweu 2018, 174; Ngoepe 2012, 153). Additionally, interpretation of findings provides meaning to the study by linking them to the research objectives, theoretical frameworks and the existing literature (Chawinga 2019, 176). In line with the assertions, the discussion and interpretation of findings in this chapter are guided and linked to the research problem; existing literature; theoretical framework; discussions in the previous chapters; as well as the research objectives.

As discussed in the previous chapters, the problem statement of this study was, to what extent were records as sources of evidence, used to support service delivery decisions by senior managers in Western Cape governmental bodies? The research objectives were to determine senior managers' knowledge of EBDM; assess whether senior managers used evidence to decide on service delivery programs; determine where the evidence was sought; evaluate the extent to which senior managers used records as sources of evidence for EBDM; and determine service delivery improvement due to use of records as sources of evidence for EBDM. The discussion and interpretation of findings is according to the research objectives. The study objectives were guided by the Continuum Model of Evidence Use as

well as the RCM. This chapter concludes with a summary of the discussion and interpretation. The following section discusses findings according to study objectives.

6.2 Discussion and interpretation of findings according to the study objectives

This section provides an in-depth discussion of findings from the data collected through the web and telephonic surveys. The discussion and interpretation are organised according to the study objectives as mentioned in the introduction to this chapter.

6.2.1 Senior managers' knowledge of EBDM

The literature review in Chapter Two revealed that knowledge and understanding of EBDM by decision makers is critical for its successful implementation. When decision makers know what EBDM entails, they learn to identify sources of evidence; develop skills to evaluate; select; and use evidence for decision-making (Banks 2009, 8; Lundgren & Kennedy 2009, 83; Marais & Matebesi 2012, 14). Moreover, the Continuum of Evidence Use, the theoretical of this study stresses the importance of knowledge of EBDM and sources of evidence for its successful implementation. Since implementation of service delivery interventions in all spheres of government in South Africa are evidence-based as explained in Chapter One, this objective was meant to determine senior managers' knowledge of EBDM and the sources of evidence. The literature review had revealed that some scholars such as Reay, Berta and Kazman Kohn (2009) discovered that there was no evidence that EBDM improves service delivery nor organizational performance. However, some studies that assessed evidence-based processes in the South African public sector, such as Boulle et al. (2015); Paine Cronin, and Sadan (2015); Marais and Matebesi (2012); as well as Strydom et al. (2010), revealed that the role of EBDM in assisting service delivery improvement was recognized, but levels of knowledge and understanding of EBDM were minimal and thus hampered its implementation and uptake. To determine knowledge of EBDM among senior managers in Western Cape governmental bodies, respondents were required to indicate whether EBDM had achieved its goals; as well as provide the important sources of evidence for EBDM. The findings are discussed in the following sub-sections.

6.3.1.1 Achievement of EBDM goals in South Africa

Maxim et al. (2015, 6) argue that due to fiscal constraints and scrutiny by politicians as well as the public, decision makers must make transparent decisions backed by evidence. The authors assert that the goals of EBDM are to enable organizations in making decisions supported by evidence and assess the evidence an organization has that it is providing the required services efficiently. South Africa, through the National Development Plan 2030 (NDP) (Republic of South Africa 2012, 44) places much emphasis on efficiency as well as the capability of the State and considers the public service a key service delivery mechanism that is central in achieving government priorities. Knowledge and understanding of government goals as well as service delivery programs by decision makers is therefore important. Additionally, the analysis of EBDM outcomes and impact is one of the four EBDM implementation stages posited by Boulle et al. (2015); Nutley, Walter & Davies (2009). Knowledge of EBDM goals and outcomes is therefore imperative.

The findings of this study showed that decision makers agreed that EBDM had achieved its goals in South Africa while some did not believe so. In 6.2.1. it was mentioned that in South Africa, there was a slow uptake of evidence-based processes due to among others, low levels of EBDM knowledge and understanding by decision makers. The findings of this study however, showed that the level of EBDM knowledge in Western Cape governmental bodies was high and that senior managers were aware of its gains. Unlike Boulle et al. (2015); Paine Cronin, and Sadan (2015); Marais and Matebesi (2012); as well as Strydom et al. (2010), Segone (2009, 21) asserts that that decision makers do have knowledge about EBDM but lack skills to evaluate evidence. Marais and Matebesi (2012) as well as Wills et al. (2016) concurs with Segone (2009) and adds that knowledge of EBDM in public bodies differs from decision maker to decision maker. In tandem with the observation, this study discovered a variation of knowledge of the achievement of EBDM goals. Most respondents who disagreed that EBDM had achieved its goals were from municipalities.

The variation in EBDM knowledge by post levels of the decision makers was noted. The variation in knowledge may have been due to lack of EBDM implementation guidelines as discovered by Paine Cronin and Sadan (2015, 2) or the lack of a proper definition of evidence (HakemZadeh 2015, 22).

Nonetheless, the inconsistency in capabilities, knowledge and skills among decision makers, hampers service delivery and public confidence in the state (Republic of South Africa 2012, 408). To address shortages in knowledge and capabilities of senior managers, it was revealed in Chapter Two, that skills assessment and improvement tools such as the Management Performance Assessment Tool and the Local Government Management Improvement Mechanism were in place in the South African public service. EBDM implementation is the responsibility of all decision makers in governmental bodies as discussed in Chapter One. Additionally, it is important that for its proper implementation, EBDM must be easily understood and skilled people be available or trained to identify as well as evaluate sources of evidence (Banks 2009, 8). The following section discusses findings on important sources of evidence to further determine senior managers' EBDM knowledge.

6.3.1.2 Sources of evidence important for EBDM

Evidence is information which comes from various sources and is important in informing decisions (Banks 2009, 5; Barends, Rousseau & Briner 2014, 3; Maxim et al. 2015, 8). However, scholars such as Baba and HakemZadeh (2012, 833) bemoan the lack of consensus on what counts as evidence. The Continuum of Evidence Use framing this study, attempts to address this anomaly by suggesting that there should be an agreement on what counts as evidence and that research evidence is not the only source of evidence to be used (Nutley, Walter & Davies 2002). Nonetheless, it was revealed in Chapter Two that the categories of evidence important for EBDM are scientific research; organizational evidence; experiential; and stakeholder evidence. Criado-Perez et al. (2019, 30), adds that consulting these four sources, evaluating and applying evidence to specific contexts, decision makers can improve the probability of the desired outcomes. The findings of this study according to the four categories of evidence sources are discussed in the following sub-sections.

6.3.1.2.1 Scientific evidence

Some of the scholars, such as HakemZadeh (2015) considered scientific evidence as the most important source. Notably, some of the EBDM theories discussed in Chapter Three were based on this notion. The findings of this study, however, revealed that although research evidence was considered important,

it was not the most important source compared to organizational evidence. It can therefore be seen that organizational evidence was considered the most important by almost all senior managers as explained in detail in the following sub-section.

6.3.1.2.2 Organizational evidence

Performance information is categorized as organizational evidence as described in Chapter Two and it provides information on governmental bodies' achievements against predetermined objectives (Republic of South Africa 2011a, 3). Senior managers are tasked with improving organizational performance through building and enabling critical organizational capacities, performance information therefore helps to set priorities, assess achievement of programs and allocate resources (Moynihan & Ingraham 2004, 430). In agreement, Boulle et al. (2015, 11) and Zussman (2003, 2) promote organizational evidence as an important source of evidence. Indeed, the findings of this study confirm Boulle et al. (2015) and Zussman (2003). In this study, organizational evidence was considered the most important source of evidence for EBDM in Western Cape governmental bodies. However, Marais and Matebesi (2012), argue that the use of this type of evidence may be negatively by politicians. Since the authors' assertion was not in the scope of this study, it could not be validated.

6.3.1.2.3 Experiential evidence

As discussed in Chapter Two, Head et al. (2014, 92), in a study conducted in several government departments, found knowledge of internal staff as the most important source of evidence. However, the findings of this study showed that experiential evidence was found to be less important than organizational and scientific evidence. Notably, most decision makers who believed that opinions of experienced staff were important, were from municipalities followed by government departments and none from public entities. The fact that municipal decision makers considered opinions of experienced staff important, is aligned with Gaffoor and Cloete (2010, 1) as well as May and Fombad (2019) who revealed in studies conducted in municipalities, that encompassing the expertise, skills, understanding and experience of internal staff, influence decision-making and assist in improved service delivery. Authors, like Wills et al. (2016), encourage knowledge management processes to entrench knowledge

of EBDM. Ncoyini and Cilliers (2016, 575) observe that knowledge sharing is a priority in local government and has been identified as a strategic skill for senior managers in municipalities. The study findings support Ncoyini and Cilliers (2016). Degen (2017), however, that because of constant changes, the relevance of experiential evidence to current contexts should be first assessed in order to avoid reliance on outdated knowledge.

6.3.1.2.4 Stakeholder evidence

Stakeholder evidence was considered the least important source of evidence. Stakeholder evidence is composed of information by external groups, individuals or institutions affected by an organization's decisions and their consequences (Barends, Rousseau & Briner 2014, 12). In the current study, stakeholder evidence was composed of media reports and service delivery protests. Managa (2012, 4) observes that in some South African municipalities, communities engage in service delivery protests to demand improved services since they felt excluded from public participation processes. Municipalities are the hardest hit by service delivery protests because the public does not differentiate between the three government spheres. To the public, poor service delivery is a government problem (Managa 2012, 2). The findings of this study showed that service delivery protests were considered important as evidence for service delivery decisions in municipalities. In the same light, media reports were ranked equally with service delivery protests. Similar to service delivery protests, media reports were considered important mostly by respondents from municipalities, followed by respondents from government departments and lastly from public entities. However, the findings from the study showed that media reports were considered the least important than all the other sources of evidence. The finding concurs with Head et al. (2014, 93) who discovered that media reports were ranked one of the least important type of evidence in all state agencies.

6.3.1.2.5 All sources of evidence

Hall and Jennings (2010) assert that decision-makers use sources of evidence they are familiar with, which is trustworthy and reliable. The findings of the study concurred with Hall and Jennings (2010), as evident in the respondents' selection of different evidence sources. Solesbury (2001, 8), however

posits that all kinds of evidence are important if they have been evaluated and considered reliable, relevant and valid. Additionally, the substance of EBDM is to evaluate all evidence sources and select the best one with the most reliable evidence. To the contrary, the findings of this study revealed that not all evidence sources were considered important by some respondents. The findings of this study therefore confirm the notion discovered by Buss and Shillabeer (2011, 3); HakemZadeh (2015, 21) that there is yet no consensus of what counts as evidence for EBDM. On the other hand, the findings support Barends, Rousseau and Briner (2014, 3) that organizational, scientific, experiential, and stakeholder evidence are the evidence that counts in EBDM. The senior managers of Western Cape governmental bodies selected organizational evidence as the most important source of evidence followed by scientific and experiential evidence. From the discussion by the proponents of “what counts as evidence” Nutley and her colleagues (2000; 2002; 2003; 2007; 2009; 2019), it can be seen that there is still no consensus of what counts as evidence.

From the discussions in 6.2.1.1. and 6.2.1.2 it is evident that senior managers in Western Cape governmental bodies do know about EBDM implementation in South Africa as well as the important sources of evidence for EBDM. The results additionally support the Continuum Model of Evidence Use, which maintains that scientific evidence is not the only evidence source for evidence-based decision-making. The following section discusses findings on sources of evidence that were used to make decisions to improve service delivery.

6.3.2 Use of sources of evidence by senior managers to decide on service delivery programs

As discussed in Chapter Three, the use of evidence is the substance of EBDM. Maxim et al. (2015, 6), explain that evidence is needed to make decisions and assess the impact or effectiveness of the decisions. However, Marais and Matebesi (2012); Paine Cronin and Sadan (2015) as well as Strydom et al. (2010), discovered that the use of evidence for decision-making in South Africa had not developed much due to lack of its awareness and knowledge. Boulle et al. (2015, 13) realized the benefits of using evidence in policy making and thus encouraged evidence-based processes to accelerate service delivery in South Africa. The findings of this study revealed a marked development in the knowledge of evidence and its use for EBDM as discussed in the following sub-sections.

6.3.2.1 Organizational evidence

In 6.3.1.2.2 the findings showed that organizational evidence was considered important by most senior managers. In tandem with the finding, the same was discovered about its use. Moynihan and Ingraham (2004, 430), explain that performance information provides a basis for decision-making, since it gives an assessment of current performance environment and changes that can improve it. However, as explained in 6.2.1.2, Boulle et al. (2015, 11) and Zussman (2003, 2) found performance information to be an under-used source of evidence. In contrast, the findings of this study showed that performance information was the most used source of evidence in Western Cape governmental bodies.

6.3.2.2 Scientific evidence

Proponents of scientific evidence such as HakemZadeh (2015) as well as Pfeffer and Sutton (2006), promote its use than experiential or stakeholder evidence. The findings of this study revealed that scientific evidence was indeed used by most respondents. Hall and Jennings (2010, 140) as well as Jennings and Hall (2012, 260), discovered that scientific evidence was used mostly by scientifically-oriented organizations than those which are not. Additionally, that the use of scientific evidence depends on its relevance to an organization's mission; mandates; reliability; and availability. Boulle et al. (2015, 4) added that because scientific evidence needs to be evaluated for reliability and validity, some organizations may not have skilled staff for the task, hence scientific evidence may not be considered by some senior managers for evidence-based decision-making. Nonetheless, the findings confirmed that scientific evidence was one of the most used evidence sources in Western Cape governmental bodies.

6.3.2.3 Experiential evidence

HakemZadeh (2015, 22), much like Hall and Jennings (2010) as well as Jennings and Hall (2012), asserts that evidence is found useful when it is relevant to the context where it is needed. In tandem with the HakemZadeh (2015) opinions of experienced staff were considered important in municipalities. In this study, the knowledge of experienced staff was used minimally for decision-making in government departments and public entities. The findings confirm Mkhize (2015) who revealed that knowledge sharing in government departments was not considered effective in improving

service delivery. The author however recommended that knowledge sharing guidelines be introduced in the public sector to entrench the value of knowledge in improving organizational performance.

6.3.2.4 Stakeholder evidence

Spencer, Detrich, and Slocum (2012, 138), contend that stakeholder evidence should not be excluded from EBDM. In this study, stakeholder evidence was in the form of service delivery protests and media reports. The literature review in Chapter Two revealed that communities resorted to services delivery protests because of the decline of public participation platforms and failure or slow pace of government to deliver services (Twala 2014). Indeed, the findings in 6.2.1.2 showed that service delivery protests were considered important for EBDM in municipalities. However, in respect of usage as evidence, the findings revealed that service delivery protests were the least used source of evidence. Managa (2012) and Twala (2014) assert that protests are not always service delivery related, but a way of voicing discontent on other issues such as deployment of councilors; appointment of staff; or corruption. Radu, Morwe and Bird (2012, 47) add that in some protests, no evidence of service delivery failure was given by protestors. To this extent, the respondents in this study may have found service delivery protests an unreliable source of evidence, hence its minimal usage for decision-making.

Media reports were found to be used minimally in Western Cape governmental bodies. Sparks (1992, 43) quoted by Mabote (1998, 91) explains that media reports inform citizens about problems facing government and influence discussions of alternative policies as well as possibilities. However, Radu, Morwe and Bird (2012) assert that media reports are negative and partial in their reporting, therefore exacerbate conflict between citizens and government. The findings thus confirm that media reports were a less preferred source of evidence. Wholly, stakeholder evidence was the least used source of evidence in the Western Cape governmental bodies.

6.3.2.5 All sources of evidence

Solesbury (2001, 8) asserts that all kinds of evidence are important if they are reliable, relevant and valid. Criado-Perez et al. (2019) posit that EBDM involves collecting available evidence from multiple

sources, critically evaluating it and applying it to specific contexts. The findings of this study showed a few respondents had used all the sources of evidence. Notably, most of the respondents were directors from municipalities and government departments. Boulding et al. (1994, 413) argue that directors are usually faced with demands from clients and top management, therefore, their decisions depend on their knowledge and expertise of the current status of the organization, and the needs of the public. This assertion may be the reason why some of directors believed they had used all the types of evidence for EBDM. Nonetheless, it is clear from the discussion the use of all sources evidence for evidence-based decision-making varied.

It has been noted in the discussion that for evidence to be used, it must be available. Additionally, as discussed in Chapters One and Two, one of the reasons for its minimal use is its unavailability. The following section discusses findings to determine where evidence was sought by decision makers in Western Cape governmental bodies to provide insight.

6.3.3 Channels where evidence was sought

The literature review revealed various channels to access evidence such as libraries; academic institutions; conferences or workshops; websites of own organizations; other organizations such as trade organizations; government departments and agencies. Additionally, as discussed in Chapter Three, the Continuum Model of Evidence Use encourages the wide distribution of evidence through various channels for availability and use by decision-makers (Nutley et al 2019; Nutley, Walter & Davies 2009). The findings of this objective revealed that the channels used mostly to access evidence were the respondents own organizational registries and own organizational websites. The findings confirm Maxim et al. (2015, 113) that one's organization is considered the most reliable channel to access evidence. According to the findings, senior managers in Western Cape governmental bodies relied mostly on records of their respective organizations for EBDM. Pearce-Moses (2005, 280) describes organizational records as data or information created or received in the course of institutional activity and preserved as evidence. The author adds that, for a record to be accepted as evidence, it must be authentic, complete, accurate, and reliable. The findings therefore demonstrate that senior managers

considered organizational records reliable as proven by the responses which showed records as the most preferred source of evidence and organizational registries as the mostly used access channels.

Notably, other channels were used minimally. The minimal use of other access channels is influenced by various factors. Chan (2018, 71) argues that if decision makers are not aware that evidence exists, they will not consult or use it. Additionally, it was revealed in Chapter Three that some EBDM theoretical frameworks, for instance Boulle et al. (2015) as well as Maxim et al. (2015), require decision makers to find evidence internal and externally. Time, lack of information seeking skills, and financial constraints were identified as barriers to access such evidence. Additionally, poor relationships between decision makers and other institutions, specifically academic ones, hampered access to external evidence (Marais & Matebesi 2012; Segone 2009; Strydom et al. 2010).

The findings discussed in the previous sections of this chapter point out that organizational evidence was considered the most important and mostly used source of evidence to decide on service delivery programs. The following section discusses findings on the extent to which records were used for EBDM.

6.3.4 Use of records for evidence-based decision-making

The literature review revealed that records and archives management scholars such as Abuki (2014, 1); Makhura (2005, 9); Ntontela (2015, 1) and Pearce-Moses (2005, 153) concur on the evidential use of records in decision-making. Ngoepe (2008, 38) asserts that because of their evidential nature, records are necessary to conduct business and support service delivery decisions. With these factors in mind, the intention of this objective was to determine the extent to which records as sources of evidence were used for EBDM in Western Cape governmental bodies by finding out the types of records available on the governmental bodies; the frequency of the use of records for EBDM; and the types of records used to make service delivery decisions. The findings are discussed in the following sub-sections.

6.3.4.1 Types of records available in Western Cape governmental bodies

Determining the types of records available helps to establish the extent to which records contribute to an organization's objectives (Mnjama 2004, 39). Records were defined in Chapter One. Additionally, Ngoepe (2008, 37), explains that records may be photographs; building plans; video/audio recordings;

minutes of meetings; reports; internal and external correspondence. The findings of this study revealed that most senior managers indicated that annual reports were available, followed by meeting minutes; internal and external correspondence; annual performance plans; and audio-visual material. The findings validate that performance information was considered the most important and used source of evidence as revealed in 6.2.1.2 and 6.2. Additionally, the finding demonstrated that senior managers were aware of the types of available records. Awareness of available evidence in an organization facilitates its use for decision-making as posited by authors such as Nutley, Walter and Davies (2007, 51). The following section presents a discussion to determine the frequency of records use for EBDM.

6.3.4.2 The frequency of the use of records for EBDM

Sundqvist (2015, 3) notes the lack of empirical studies on the use of records compared to their care and management as physical objects. The author, however, lauds the importance of records in public administration and promotes their use for informational and evidential purposes. In Chapter One, it was revealed that despite the evidential nature of records, they were seldom used for decision-making by senior managers in governmental bodies (Schellnack-Kelly 2013, 12). On this premise, the research problem explained in detail in Chapter One, was conceived to determine the extent to which records as sources of evidence were used by senior managers to support service delivery decisions in Western Cape governmental bodies. Contrary to Schellnack-Kelly (2013), the findings of this study showed that in Western Cape governmental bodies, records were always used for decision-making. Additionally, the findings showed that though municipalities had more respondents than government departments and public entities, most senior managers who had always used records for decision-making were from government departments. The study findings therefore revealed that senior managers of Western Cape governmental bodies always used records as sources of evidence for EBDM; and confirm that decision makers used evidence if they are awareness of its availability.

Unavailability due to poor records management processes, was one of the barriers to using records for decision-making in the public sector (Ngoepe 2012; Schellnack-Kelly 2013; Tiravanhu, Olaleye, & Bester 2017). However, as revealed in Chapter One, records management processes were in order in Western Cape governmental bodies. The finding that records were always used for decision-making

proves that indeed, good records management processes enable continuous access and use of records for decision-making as asserted by Guercio (2001, 252). Both the Continuum of Evidence Use and the Records Continuum Model respectively stress the continuous use of evidence and the evidential value and continuous use of records for what they were created for (Republic of South Africa 2017b; Kalusopa 2011, 61). With that said, the following section discusses the types of records used by senior managers for decision-making.

6.3.4.3 Records used for decision-making during the previous financial year

The essence of EBDM is the use of available evidence from various sources for service delivery decision-making. Organizational records are one of the evidence sources as succinctly explained in Chapters One and Two. To determine the use of records, the respondents were requested to indicate the types of records they had used for decision-making in the previous financial year, that is 2018/19. The findings revealed that annual reports and annual performance plans were the most used types of records. The Australian Bureau of Statistics (2010, 2) asserts that using information on what has worked previously is one of the benefits of implementing EBDM. This information is found in performance information which is composed of among others, annual performance reports and annual performance plans. The DPME explains that annual performance plans encourage evidence-based policy making, planning and implementation, while annual reports provide information on the performance of governmental bodies against predetermined objectives and targets set in the annual performance plans (Republic of South Africa 2019d, 17). The findings of this study confirm that performance information is indeed the basis of EBDM and was mostly used by senior managers in Western Cape governmental bodies for decision-making.

In addition to annual performance plans and reports, evidence of what works can be found in other records such as minutes of internal meetings; stakeholder engagement meetings or feedback from the public through correspondence with the organization (Groves & Schoeffel 2018, 71). It was mentioned in Chapter Two that Barends, Rousseau and Briner (2014) assert that all organizational evidence is necessary for decision-making. The findings of this study revealed that while internal and external correspondence and minutes of meetings were used to a lesser extent than annual performance plans

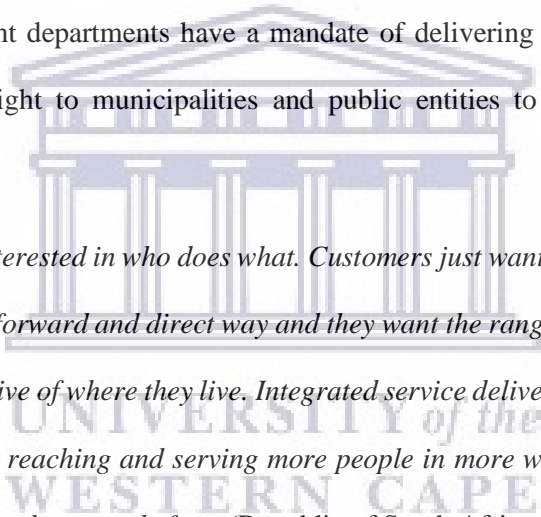
and reports, they were used satisfactorily. It can be determined from the discussion that the findings confirm that the availability and use of records are essential for EBDM. The following section discusses findings on the service delivery programs implemented by using evidence from the records identified in this section.

6.3.5 Service delivery improvement programs implemented from using records as evidence for evidence-based decision-making

As presented in Chapter Three, the Continuum Model of Evidence Use was borne out of reviews of initiatives informed by the use of evidence. The construct to determine whether evidence was used to inform service delivery decisions was therefore beneficial for the study. The DPME (Republic of South Africa 2014, 2), asserts that evidence is needed to determine effectiveness of service delivery programs and make decisions to improve identified short comings or to discontinue some programs. Cox (2000, 127); Momoti (2017, 2) and Ngoepe (2008, 45), add that records are required in service delivery decision-making. Against this background, the findings in the previous sections revealed that records were always used as sources of evidence for service delivery decisions by senior managers in Western Cape governmental bodies. This section discusses findings concerning service delivery improvement programs implemented from using records as evidence for decision-making.

The delivery of services is the responsibility of governments world-wide as alluded to in Chapter One. In the South African government, provinces and municipalities are constitutionally responsible for implementing many of the key objectives of government (Republic of South Africa 2015, 22). Service delivery in the South African public sector is guided by the NDP (Republic of South Africa 2012), from which the MTSF was designed to guide policy and programs during the 2014-2019 period (Republic of South Africa 2013). During this period, service delivery in the Western Cape Province was guided by the Western Cape Provincial Strategic Plan: 2014–2019 which was closely aligned to the NDP and MTSF. The Provincial Strategic Plan had five inter-related Provincial Strategic Goals (PSGs) to drive integrated and improved performance across the public sector in the Western Cape (Republic of South Africa 2018).

The findings of the study revealed that some of the respondents did not provide relevant information to this question. Flick (2015, 212) notes that one of the limits of surveys is the varied understanding and interpretation of questions. This seemed to be the case with the question. Nonetheless, the findings revealed that there were eighty-three (83) service delivery improvement programs implemented, which were aligned to the NDP as well as PSGs as alluded to in Chapter Five and explained in Chapter Seven. From the eighty-three-service delivery programs, most of them were implemented by municipalities and government departments. The fact that respondents from municipalities were more than others may have contributed to the higher percentage of service delivery programs implemented by municipalities. Additionally, integrated service delivery may have contributed to the higher percentage in municipal service delivery programs (Republic of South Africa 2018, 17). Integrated service delivery implies that though Provincial government departments have a mandate of delivering services, they additionally provide guidance and oversight to municipalities and public entities to deliver the services. The rationale is that:



Customers are not interested in who does what. Customers just want to be able to access public services in a straightforward and direct way and they want the range and quality of services to be the same irrespective of where they live. Integrated service delivery is about serving existing customers better and reaching and serving more people in more ways, in more places and at more convenient times than ever before, (Republic of South Africa 2009, 1)

In Chapter Two it was revealed that there was consensus about poor municipal service delivery by authors such as Managa (2012, 1); Schellnack-Kelly (2013, 4); Twala (2014, 159), due to a variety of reasons. Nonetheless, Schellnack-Kelly (2013, 95), posits that because municipalities are at the coal face of service delivery, they consider service delivery a high priority. The author highlights a wide range of services that municipalities are expected to deliver, such as agriculture; disaster management; education health services; environmental management; housing; population development; regional planning and development; trade; urban and rural development; and welfare services. The findings of the study revealed that municipalities do take the important role of delivering services and the use of records as sources of evidence in making service decisions. The following section discusses findings

on the perceptions of senior managers on the importance of using records for service delivery decision-making.

6.3.5.1 Importance of the use of records as evidence for service delivery decisions

The theoretical framework of this study, the Continuum Model of Evidence Use opines that instrumental uses of evidence are rare, that is. the use of evidence to inform practice. The findings in the previous section, however, proved the instrumental use of records as evidence for decision-making in Western Cape governmental bodies. The findings of this study show that senior managers in Western Cape governmental bodies considered records to be important for making service delivery decisions. The findings confirm what was revealed in the previous sections of this chapter, that organizational records were the most available and used type of evidence.

The following section summarizes the chapter discussions.

6.4 Chapter summary

This chapter discussed and interpreted findings from the data presented in Chapter Five. The findings were interpreted by linking them to the research problem; research objectives, existing literature; theoretical frameworks; and discussions in previous chapters. The findings revealed an acceptable response rate, and satisfactory representativity of all post level types in the study sample. The study findings could therefore be generalized to the population from where the sample was taken. The findings confirm that records as sources of evidence were always used for decision-making in Western Cape governmental bodies. In addition, senior managers considered evidence from records to be important for making service delivery decisions. The use of records for decision-making was evident in various service delivery improvement programs implemented. According to the Continuum Model of Evidence Use, the study revealed that use of records as sources of evidence was found to be at the instrumental stage in Western Cape governmental bodies. Additionally, the findings of the study showed that knowledge of EBDM among senior managers varied but was high as demonstrated by their awareness of EBDM achievements; knowledge of sources of evidence and their use. The following chapter

summarized the findings of the study; highlighted the study significance; made conclusions and recommendations and discussed a proposed model for incorporating records into EBDM.



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CHAPTER SEVEN

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

7.1 Chapter introduction

Chapter Six discussed and interpreted the findings of the study. The discussion of the findings was linked to the research problem; research objectives, existing literature; and theoretical frameworks of the study. This chapter summarizes and concludes the study. Hofstee (2006, 157), advises that the conclusions' chapter should be linked to the study thesis. This chapter thus revisits the research problem of the study. This study investigated the extent to which records were used to support service delivery decisions by senior managers in Western Cape governmental bodies. A literature review of previous studies was conducted and presented in Chapter Two to provide views from previous studies about the use of records and EBDM. An in-depth discussion of the theoretical frameworks deployed in this study was presented in Chapter Three. A survey was used to collect data as described in detail in Chapter Four. The findings from the data were analyzed and presented in Chapter Five. To provide insight into what the study discovered, interpretation and discussion of findings were presented in Chapter Six. The interpretation and discussion of findings were guided by the literature review findings; study objectives; theoretical framework; and research problem.

This chapter concludes the study. Oliver (2008, 133) explains that a study conclusion highlights the key-points of what has been achieved by the study and provides a summary which will show whether the aims of the study were met. This chapter, thus, presents a summary of findings, conclusions and recommendations according to the study objectives. In addition, a model to incorporate the use of records in EBDM is proposed. The model is meant to assist with EBDM implementation in public administration. Furthermore, the study contributes to the body of knowledge of the use of records as evidence for decision-making in public administration. Themes for further studies are recommended. A conclusion presents a brief discussion of the overall study.

7.2 Summary of findings

Hofstee (2006, 156), posits that the summary of findings is a brief recap of the main findings which were discussed in detail in the previous chapters. As briefly explained in the preceding section, the summary of findings of the current study are presented according to the objectives of the study, namely, to determine senior managers' knowledge of EBDM; assess whether senior managers used evidence to decide on service delivery programmes; determine where the evidence was sought; evaluate the extent to which senior managers used records as sources of evidence for EBDM; and determine service delivery improvement due to use of records as sources of evidence for EBDM. The objectives were guided by the constructs of the Continuum Model for Evidence Use and the Records Continuum Model.

7.2.1 Senior managers' knowledge of evidence-based decision-making

The Continuum of Evidence Use, the model which framed this study, shows that knowledge and understanding of EBDM are crucial for its implementation. The construct is supported by scholars such as Banks (2009, 8) as well as Lundgren and Kennedy (2009, 83). Additionally, the literature review revealed that public sector decision makers have knowledge of EBDM, but it differs from one decision maker to the other. Additionally, as discussed in Chapter Two there were conflicting views of how to determine decision makers' levels of EBDM knowledge. In the current study, EBDM knowledge was determined by senior managers' knowledge of whether its goals were achieved in South Africa and senior managers' knowledge of the sources of evidence considered important for EBDM. The following sub-sections summate the respective findings.

7.2.1.1 Achievement of evidence-based decision-making goals in South Africa

Effectiveness and efficiency in achieving government priorities is posited in the National Development Plan 2030. One of the NDP 2030 priorities is to build a capable and developmental state which is a government service with skilled and knowledgeable employees for efficient delivery of services to communities (Republic of South Africa 2012). Implementation of EBDM in the South African public sector is the responsibility of senior managers as decision makers (Marais & Matebesi 2012, 366). It is important that senior managers know what EBDM is and what it seeks to achieve (Banks 2009, 19).

Additionally, the EBDM models discussed in Chapter Three, placed much emphasis on the knowledge and understanding of EBDM and assessing whether it had achieved its goals after implementation of service delivery programs (Boulle et al. 2015; Maxim et al. 2015). The findings of this study showed that most senior managers in Western Cape governmental bodies knew that EBDM had achieved its goals. However, the study revealed varying knowledge since some senior managers did not agree. The varying levels of EBDM knowledge seems to be a common phenomenon as shown in the literature but can be addressed as mentioned in 2.2.

7.2.1.2 Sources of evidence important for EBDM

The Continuum Model of Evidence Use posits that there should be an agreement of what counts as evidence. The literature review revealed a consensus among scholars, such as Banks (2009); Barends, Rousseau and Briner (2014); Jennings and Hall (2012); Maxim et al. (2015), that evidence comes from various sources. Barends, Rousseau and Briner (2014, 3) presented four categories of evidence which are important for EBDM, namely, scientific, organizational; experiential; and stakeholder evidence. The findings of the importance awarded to each category by senior managers of Western Cape governmental bodies are summed up in the following sub-sections.

7.2.1.2.1 Scientific evidence

Most scholars, for instance Baker and Welner (2012) as well as HakemZadeh (2015) emphasized scientific evidence as the most important source of evidence. The EBDM models discussed in Chapter 3, were designed with scientific evidence in mind. As explained in 2.2.1., scientific evidence is composed of results of studies conducted using a scientific method and published in research reports or journal articles. In the current study, the findings revealed that senior managers did not consider scientific evidence as the most important source of evidence for EBDM but ranked it as the second most important.

7.2.1.2.2 Organizational evidence

Organizational evidence is composed of administrative data and records of an institution, body or organization (Barends, Rousseau & Briner 2014, 3). In this study, performance information was the

type of organizational evidence assessed. Performance information includes among others, annual performance plans and annual performance reports. In the South African government, planning on which services are to be delivered; how they will be delivered; and what has been achieved, are recorded in organizational performance records. In this study senior managers considered organizational evidence as the most important source of evidence for EBDM, followed by scientific and experiential evidence. The use of records as sources of evidence was the scope of the study. The finding, therefore, that the senior managers considered organizational records to be the most important source resonates well with the aim of this study.

7.2.1.2.3 Experiential evidence.

Experiential evidence is composed of professional knowledge and opinions of experienced staff as explained in 2.2.1. Banks (2009) discouraged the use of opinions of other employees due to constant changes in an organization's internal & external environment, which would render some of the knowledge outdated. On the other hand, Head et al. (2014) concluded that internal staff knowledge was ranked the most important source of evidence. The findings of the current study however, ranked experiential evidence as the third most important source of evidence in EBDM. Most of the senior managers who considered experiential evidence important were from municipalities. May and Fombad (2019) as well as Ncoyini (2016), reveal that in municipalities, knowledge sharing is considered vital for improved service delivery. Notably none of the respondents from public entities considered experiential evidence an important source of evidence for decision-making.

7.2.1.2.4 Stakeholder evidence

Stakeholder evidence as explained in 6.3.1.2.4, is from external sources, such as, communities; clients, interest groups; and other organizations. In this study, service delivery protests and media reports were the stakeholder evidence used to determine its importance in EBDM. The literature review revealed that due to the decline of public participation programs in South Africa, the communities resorted to service delivery protests as way of venting their frustrations at slow or non-delivery of services (Williams 2006, 198). In the current study, service delivery protests were among the least important sources for EBDM.

Notably, service delivery protests were selected mostly by senior managers from municipalities; quite a few from government departments; and none from public entities. Media reports were also considered less important for EBDM. Like service delivery protests, media reports were selected mostly by senior managers from municipalities. Stakeholder evidence is considered unreliable, for instance Managa (2012) and Twala (2014) discovered that protests are not always service delivery related, but a way of showing frustration on other community to government related matters. Equally, poor relationships between the media and government as well as bias in reporting, rendered media reports unreliable sources of evidence (Radu, Morwe & Bird 2012). Stakeholder evidence therefore was considered the least important source of evidence.

7.2.1.2.5 All sources of evidence

The quality, reliability and validity of evidence varies hence EBDM considers all the available sources of evidence important, from which the best one would be selected if it was evaluated for reliability and relevance (Jennings & Hall 2012, 247; Solesbury 2001, 8). However, some decision makers prefer sources of evidence they can rely on and are available, instead of consulting all them (Hall & Jennings 2010, 139). The findings of this study show that most senior managers did not consider all sources of evidence important in EBDM. The findings revealed that only 10% of senior managers mostly from government departments considered all sources of evidence to be important for EBDM.

The findings discussed in the preceding sections show that knowledge of EBDM achievements was quite high but varied among senior managers. Furthermore, a few of the senior managers considered all sources of evidence as important for EBDM. The findings confirm Wills et al. (2016) that senior managers do have EBDM knowledge, but it varies among public sector senior managers. Knowledge and understanding of EBDM and sources of evidence, however, enable its use as discussed in the following section. From the study findings, senior managers seemed to know what counts as evidence, which is the essence of the Continuum Model of Evidence Use.

7.2.2 Use of sources of evidence by senior managers to decide on service delivery programs

The use of sources of evidence for decision-making is one of the constructs of the Continuum Model of Evidence Use. This objective, aligned to the model's construct, was meant to assess whether senior managers used sources of evidence to decide on service delivery programs. The literature review revealed that the use of evidence for decision-making in the South African public service was found to be low by scholars such as Marais and Matebesi (2012) as well as Paine Cronin and Sadan (2015). The findings of the current study are summarized according to evidence type in the following sub-sections.

7.2.2.1 Scientific evidence

Hall and Jennings (2010, 140) argue that the use of scientific evidence is largely influenced by its knowledge by decision makers; availability; political culture; as well as scientific inclination of a governmental body. The current study revealed that scientific evidence was not the most used source of evidence. Scientific evidence was the second most used source of evidence, more especially by senior managers from government departments.

7.2.2.2 Organizational evidence

Compared to scientific evidence, Boulle et al. (2015) discovered that organizational evidence was an under-utilized source. On the contrary, the findings of the current study revealed that organizational evidence was the most used source of evidence for EBDM by senior managers in Western Cape governmental bodies. All the senior managers from all governmental bodies had used their organizations' performance information for EBDM.

7.2.2.3 Experiential evidence

Experiential knowledge includes professional opinions of experienced employees of an organization (Barends, Rousseau & Briner 2014, 3). The literature review revealed that Head et al. (2014); Reay, Berta & Kazman Kohn (2009, 13) as well as Spencer, Detrich, and Slocum (2012, 136), discovered that knowledge and opinions of internal staff were the most valued and used source of evidence. On the other hand, while Barends, Rousseau & Briner (2014, 5), acknowledge the use of knowledge and

opinions of employees as evidence, they point out its unreliability when used on its own. Nonetheless, the current study findings revealed that opinions of experienced staff were the third most used source of evidence in Western Cape governmental bodies. Additionally, in tandem with the discussion in 7.1.1.2.3, experiential evidence was mostly used by senior managers from municipalities and a few from the other governmental bodies.

7.2.2.4 Stakeholder evidence

Spencer, Detrich, and Slocum (2012) as well as Tomaz et al. (2020) promote the use of stakeholder evidence because of its valuable contribution to informing policies and service delivery improvement programs. However, in 7.1.1.2.4 it was mentioned that stakeholder evidence was considered to be unreliable. Along with the previous studies, the findings of the current study showed that stakeholder evidence was the least used source of evidence for EBDM.

7.2.2.5 All sources of evidence

As discussed in 2.3, Boulle et al. (2015) used various sources of evidence to review a service delivery program as part of EBDM. Maxim et al. (2015, 4) explain that EBDM is informed by experiential, contextual and research evidence necessary for decision-making. All sources of evidence are therefore valuable to be used for decision-making. The findings of the current study revealed that a few senior managers mostly at Director post level, had used all sources of evidence for EBDM. Additionally, the findings of this objective showed that senior managers preferred to use certain evidence sources than all of them. The use of evidence depends on various factors such as availability, explain Jennings and Hall (2012, 249). These may have been contributing factors in Western Cape governmental bodies. The following section provides a summary on the channels where the evidence was sought.

7.2.3 Channels where evidence was sought

The Continuum Model of Evidence Use promotes the wide distribution of evidence for access through various channels and mediums. Aligned to the model's construct, this objective was to determine the channels where evidence was sought by senior managers of Western Cape governmental bodies. The current study discovered that the channels which were mostly used to access evidence were registries

and websites of respective governmental bodies. Quite a few senior managers accessed evidence from other organizations' websites; university websites; as well as libraries. The channels where evidence was sought were therefore organizational, thus supporting the finding that most of the senior managers preferred to use their organizational records as sources of evidence.

7.2.4 The use of records for evidence-based decision-making

This objective was to evaluate the extent to which senior managers' used records for EBDM. Records are organizational evidence that are proof of an organization's business activities and essential in decision-making, planning, operations, and assessment of results and projecting for the future (Iwhiwhu 2005, 345). The evidential value of records is acknowledged by archives and records management scholars, such as Duranti and Rogers (2011); Jenkinson (1937); Marutha (2011); Ngoepe (2008); Pearce-Moses (2005); and Yeo (2007, 2011). Additionally, the Records Continuum Model, the theoretical framework of this study, stresses the continuous and indefinite usefulness of records for transactional; evidentiary; and memory purposes (Cummings 2010, 42; Svard 2013, 163). Organizational records are considered more reliable than other sources of evidence (Cordis & Milyo 2013). However, poor record-keeping in the South African public sector was found to hamper availability and accessibility of records (Marutha 2016; Schellnack-Kelly 2013). The discussion in 1.2.4. showed that records management tools and practices were in place in the Western Cape governmental bodies to facilitate their use. The following sub-sections present summaries of what the study revealed on the use of records for EBDM in Western Cape governmental bodies.

7.2.4.1 Types of records available in Western Cape governmental bodies

The knowledge of the types of records available helps to establish the extent to which records contribute to an organization's objectives (Mnjama 2004, 39). In addition, awareness of available evidence facilitates its use for decision-making (Nutley, Walter & Davies 2007, 51). In this study, annual reports were considered the most available records, followed by meeting minutes; internal and external correspondence; annual performance plans; and audio-visual material.

7.1.4.2 The frequency of the use of records for evidence-based decision-making

The problem statement of the study as explained in Chapter One, was the extent to which records as sources of evidence, were used to support service delivery decisions by senior managers in Western Cape governmental bodies. Klareld (2017, 1); Momoti (2017, 68) as well as Schellnack-Kelly (2013, 9), revealed that despite their evidential nature, records, were seldom used for decision-making in the South African public sector due to the poor state of records management. The current study, however, revealed that records were always used as sources of evidence for EBDM by senior managers in Western Cape governmental bodies.

7.2.4.3 Records used for decision-making during the previous financial year

The preceding sub-section revealed that records were always used for EBDM in Western Cape governmental bodies. This section summarizes findings on the types of records that were used for decision-making during the 2018/19 financial year, when the study was conducted. Barends, Rousseau and Briner (2014); Momoti (2017, 2); as well as Ngoepe (2008, 45), posit that records are required in service delivery decision-making. In the current study, performance information, that is annual reports and annual performance plans were the most used types of records for EBDM followed by minutes of meetings. Internal and external correspondence as well as audio-visual material were used the least. The findings confirm the discussion in 7.1.2.2. that performance information was the most used source of evidence in Western Cape governmental bodies.

7.2.4.4 The importance of the use of records for service delivery decisions

The previous section showed that records were used for EBDM by senior managers in Western Cape governmental bodies. This section provides a summary of whether senior managers considered the use of records important for service delivery decisions. The literature review revealed a consensus by various scholars on the importance of using records for decision-making. In tandem with previous literature, the current study revealed that senior managers in Western Cape governmental bodies strongly agreed that records are important as sources of evidence for EBDM. To demonstrate that using records as evidence for service delivery decision-making contributes to improved service delivery, the

following sub-section provides a summary of service delivery programs implemented after using records as evidence for decision-making.

7.2.5. Service delivery improvement programs implemented from using records as evidence for evidence-based decision-making

The Continuum Model of Evidence Use maintains that evidence should be used to inform service delivery decisions. As discussed in 6.2.5., service delivery in the South African public sector during the period of the current study, was guided by the NDP 2030 and MTSF from which the Western Cape Provincial government developed its strategic and annual performance plans. The detailed analysis in 5.2.5, revealed that 83 service delivery improvement programs were implemented and informed by using evidence from records. Additionally, the programmes were aligned to the fourteen national outcomes exposed in the MTSF and the five Provincial Strategic Goals of the Western Cape Provincial Government. Notably, most of the service delivery programs were implemented by municipalities. As mentioned in 6.2.1.5, municipalities are at the fore front of service delivery, hence most of the programs were implemented there.

The summary discussion of the study objectives shows that knowledge of EBDM among senior managers in Western Cape governmental bodies varies. In addition, senior managers consider the use of records important in EBDM and always used them for service delivery decision-making. Several service delivery programs were provided as proof of the value of using records as sources of evidence for EBDM. The finding, therefore, confirms that the use of records as evidence for decision-making contributes to improved service delivery. The following section presents conclusions on the research objectives.

7.3 Conclusions on the research objectives

Conclusions are what a researcher can confidently deduce from the study and must always link back to the aim of the study, problem statement, research questions or objectives to provide the reader an understanding of what the study sought to address (Hofstee 2006, 157). The aim of the study as explained in 1.5, was to determine the extent to which records were used to support service delivery decisions by senior managers in Western Cape governmental bodies. The following sections present

the conclusions of the study according to research objectives to show whether the aims, objectives and problem statement were addressed, as well as whether the hypothesis was confirmed or rejected.

7.3.1 Senior managers' knowledge of evidence-based decision-making

Knowledge and understanding of what EBDM entails are important for its successful implementation (Alavi et al. 2015, 1021). Moreover, knowledge of what evidence is, and which sources exist in an organization are necessary for its use (Maxim et al. 2015, 8). However, many scholars such as Criado-Perez et al. (2020) observed the varying levels of knowledge and understanding of EBDM among decision makers as well as the levels of importance they award to evidence sources. The variations in EBDM knowledge hinder its successful implementation. This study confirms that senior managers in Western Cape governmental bodies know about EBDM achievements, but their knowledge varies. Furthermore, a few of the senior managers considered all the given sources of evidence as important. However, organizational; scientific; experiential; and stakeholder evidence are all important for EBDM. The study concludes that senior managers' knowledge of EBDM is average and varies among the senior managers

7.3.2 The use of sources of evidence by senior managers to decide on service delivery programs

EBDM is making decisions by using the best available evidence from multiple sources to increase the likelihood of a favorable outcome (Barends et al. 2017, 1). However, barriers to its use such as lack of knowledge about available evidence, lack of time to identify and find evidence, its availability and managers' skill to evaluate it, have been noted by scholars such as Gerrish and Clayton (2004, 119). The current study concludes that senior managers in Western Cape governmental bodies do use sources of evidence to make service delivery decisions. Notably, organizational evidence is the most used source. However, in contrast with the purpose of EBDM, a few senior managers used all sources of evidence to select the best one to use for decision-making.

7.3.3 Channels where evidence was sought

Evidence is used if it is accessible, available and decision makers know of its availability (Nutley, Davies & Walter 2003, 29). This objective was to determine where senior managers sought the evidence

they used for EBDM. In the preceding sections, the study found that organizational evidence was the most important and used source. Befitting the findings, the study concludes that the most used channels to access evidence are the governmental bodies' registries and websites. Organizational registries are run by records management staff and are a central place where records are systematically kept; managed; and accessed. In some institutions however, registries are decentralized according to function and run by staff of a specific unit, for instance Human Resources or Legal Services. Nonetheless registries serve the same purpose, to manage, store, and provide access to organizational records. Some organizational information which has been deemed suitable to be accessed by the public, for example, annual performance plans, annual reports, strategic plans, reports and newsletters are available from the organizations' websites for continuous access without space or time limitations. The study concludes thus that the respective registries and websites of Western Cape governmental bodies are the most used channels to access evidence by senior managers.

7.3.4 The use of records for evidence-based decision-making

The RCM supports the continuous use of records as sources of evidence. Records are sources of evidence or by products of what has taken place and recorded during business activities of an organization, for example during an organization' strategic planning session (business activity), meeting minutes and a strategic plan are evidence that strategic planning for a particular period occurred. In addition to their evidential nature, there is a consensus among records and archives management scholars that organizational records are vital for good governance, accountability and decision-making, as it has been revealed by the literature review in Chapter Two. The proper creation and management of records to ensure reliability and trustworthiness of the evidence they bear, is thus crucial. It is clear from the preceding sub sections, that records were used and consulted from registries. The study concludes that records were always used as sources evidence for service delivery decisions.

7.3.5 Service delivery improvement programs implemented from using records as evidence for evidence-based decision-making

The purpose of this objective was to determine service delivery improvement programs which were implemented after using evidence from records for decision-making. Service delivery in South Africa

is central to all government spheres, hence the introduction of EBDM among other initiatives to enhance service delivery decisions. The three tiers of government work cooperatively to ensure coordinated service delivery, guided by among others, the NDP 2030. Aligned to the NDP, is the 2014/2019 Medium Term Strategic Framework, the government strategic plan, with its fourteen outcomes, namely, quality basic education, improving health outcomes, reducing crime, creating jobs, developing the skills and infrastructure required by the economy, rural development, sustainable human settlements, effective and efficient local government and public service, the environment, international relations, social development, and social cohesion and nation building (Republic of South Africa 2014). The MTSF guides planning and the allocation of resources across all spheres of government. All national and provincial departments and municipalities are required to produce five year strategic and annual performance plans aligned to MTSF. The Western Cape provincial government thus developed a five-year strategic plan with five strategic goals aligned to the MTSF outcomes. The study concludes that in Western Cape governmental bodies, 83 service delivery improvement programs were implemented after using records as evidence for EBDM. Moreover, the programs were aligned to the fourteen outcomes of the MTSF and Provincial Strategic Goals.

The conclusions discussed in the preceding sections show that the problem statement as well as the objectives were addressed. The following section presents recommendations for each objective based on the afore-mentioned conclusions.

7.4 Recommendations

Hofstee (2006, 159) and Oliver (2008, 135), advise that the recommendations section of a study should list what the study recommends; explain who the recommendations are directed to; where and how they should be implemented; as well as the benefits they bring into practice. Balnaves and Caputi (2001, 229) add that because a study would be read by not only peers in the same field, but policy makers, managers and researchers from other disciplines, the study' intention and recommendations must be clear. Taking the advice into account, this section presents recommendations according to the study objectives and specifies who the recommendations are meant for.

7.4.1 Senior managers' knowledge of EBDM

The important role of EBDM in a service delivery-oriented government has been acknowledged by various scholars as presented in the literature review. South Africa, through the Department of Planning, Monitoring and Evaluation, promotes service delivery that is informed by using reliable evidence about what does and does not work. However, inconsistencies in senior manager's knowledge delay successful implementation of EBDM as pointed out by Paine Cronin and Sadan (2015) as well as Strydom et al. (2010). The current study also noted the inconsistencies in EBDM knowledge among senior managers in Western Cape governmental bodies. This implies that there are knowledge and skills gaps among the senior managers. The following are recommended:

7.4.1 EBDM Training

In order to address the gaps in skills and build the knowledge capacity of public servants, the National School of Government (NSG) previously known as the Public Administration Leadership and Management Academy, was launched in 2013 (Republic of South Africa 2020a). The NSG assists public organizations to improve outcomes and impact by providing training aligned with the National Development Plan to public servants. This study recommends to the National School of Government to include EBDM in the curricula of the Certificate for Entry into the Senior Management Service(SMS); Compulsory SMS Induction Program; In-Service Learning Programs for SMS; as well as the Service Delivery Programs. The training would include all aspects of EBDM, such as what counts as evidence, as well as its implementation. EBDM training would raise awareness to the practice; improve; and standardize its knowledge and understanding among senior managers across all spheres of government.

ii. National Knowledge Management Programmes

This study has revealed that knowledge of experienced staff is among the most important sources for EBDM. The current study recommends to the Department of Public Service and Administration to put programmes in place to entrench knowledge management in all spheres of government. Scholars such as, Mannie, Niekerk and Addendorf (2013) as well as Schutte and Barkhuizen (2015), assert that KM is practiced in South African municipalities but is found lacking in government departments and public

entities, therefore not standardized in the public sector. The absence or minimal knowledge management practices in the public sector means that knowledge about government programs is not effectively shared, resulting in staff working in silos; no knowledge sharing; others more knowledgeable; loss of institutional knowledge when experienced staff leave or retire.

iii. Entrenchment of Knowledge Management in Western Cape governmental bodies

The study recommends that Heads of Western Cape governmental bodies should entrench KM in their respective governmental bodies by establishing Knowledge and Information Management Units where there are none. Formalization of KM would allow for knowledge sharing sessions to discuss key government programs such as EBDM to standardize knowledge among staff. By entrenching KM, the Western Cape governmental bodies would develop into learning organizations, which promote the exchange of information between employees for a more knowledgeable workforce (Mannie, Niekerk & Addendorf 2013, 4). Standardized knowledge of EBDM would increase its proper implementation.

7.4.2 The use of sources of evidence by senior managers to decide on service delivery programs

Knowledge of EBDM and its sources enables its proper implementation as discussed in the previous section. The study noted, however, that senior managers preferred to use some sources of evidence than others. EBDM however, requires that senior managers should make decisions by using the best available evidence from multiple sources (Barends et al. 2017, 1). The EBDM training recommended in 7.3.1 would address and improve knowledge, understanding and use of all sources which count as evidence. The study recommends that:

- i. senior managers of Western Cape governmental bodies to support the inclusion of EBDM in training interventions offered by the NSG; attend the training and knowledge sharing initiatives to improve their knowledge and understanding of EBDM for its proper implementation.
- ii. senior managers to use other available sources such as scientific, stakeholder, and experiential evidence because that is what EBDM entails.

7.4.3 Channels where evidence was sought

The current study uncovered that organizational registries and websites were the most used channels to access evidence. Accessing organizational records from websites of respective governmental bodies, shows that the RCM is making inroads in Western Cape governmental bodies. While access and use of organizational evidence is a victory of sorts for the purpose of this study and broader records management profession, it is, however, an indication that organizational evidence is the preferred source of evidence. Knowledge and understanding of EBDM as well as the importance of all the sources of evidence, would encourage the senior managers to use other access channels, such as websites of other organizations, universities and libraries to access a wide range of sources of evidence. Websites of other organizations provide access to other evidence such as research and media reports, with no time or space limitations. The evidence from other channels may be vital for service delivery decision-making.

The study recommends that:

- i. senior managers plan and give themselves enough time to use other organizations access channels to search for evidence that may assist with the best service delivery decisions.
- ii. Senior managers should make use of information professionals in their organizations, such as information specialists or librarians, to assist them with searching for the evidence they need.
- ii. Senior managers must adopt and utilize enterprise content management (ECM) systems used in their organizations, for business processes; storage and access to organizational evidence. In cases where there are none, the study recommends to the Heads of those governmental bodies to implement ECM systems. The benefits of ECM are that it provides central storage of records and allows faster access to them online without space or time restrictions. Additionally, ECM allows a record to be accessed by multiple users concurrently (Marutha 2016, 302). The use of ECM could assist with the transition from the RLM model to the RCM. The proposed model in 7.3.4.1 expands more on the use of ECM systems.

7.4.4 The use of records for evidence-based decision-making

The study concludes that records are always used for EBDM in Western Cape governmental bodies. Moreover, it can be deduced from the current study and from other scholars, that the essence of EBDM is the use of the best available evidence from multiple sources for decision-making. Additionally, the study revealed organizational evidence as the sources that counts most as evidence for EBDM in Western Cape governmental bodies. Explaining further, Momoti and King (2019, 79) assert that records bear evidence of an organization's business activities and are important resources for decision-making. However, none of the available EBDM models and frameworks explicitly show how the use of records can be incorporated. The RCM, one of the theoretical frameworks for this study, upholds the indefinite business usefulness of records as sources of evidence with no time nor space limitations. The study recommends that:

- i. the Western Cape Archives and Records Service encourages the adoption of the RCM in governmental bodies through regular communication with records managers and training programs for records management personnel. The records managers in turn, must move towards implementing the RCM in the respective records management programs, and provide awareness in their respective organizations.
- ii. The South African government, through the DPME adopts the proposed model to foster the use of records in evidence-based decision-making to be used in all governmental bodies. The model is discussed in the following sub-section.

7.4.4.1 A model to foster the use of records in EBDM

Nilsen (2015) posits that models in research are constructed from empirical findings and are to simplify a phenomenon or a specific aspect of a phenomenon; as well as describe or guide the process of translating research into practice. Schlager (2007), adds that models are used to test, revise, and further develop theory. Rousseau (2018, 2), observes that in the management field, there is scarcity of frameworks, models, checklists and decision supports to guide organizational decisions than in the

health professions. The proposed model of this study is an attempt to contribute a model that simplifies the process of incorporating the use of records as one of the sources of evidence in EBDM. The model further contributes to the theory that the use of records as sources of evidence for decision-making contributes to service delivery improvement.

7.4.4.1.1 Explanation of the proposed model

The proposed model is intended to improve the use of organizational records as sources of evidence in EBDM. The model is built on the DPME revised National Evaluation Policy Framework (Republic of South Africa 2019d, 63), which encourages the use of evidence in decision-making processes in the public sector. Moreover, the proposed model uses the constructs of the Continuum Model for Evidence Use and RCM which guided the study and its findings. The National Evaluation Policy Framework (NEPF) indicates stages in which evidence is used, namely, diagnosis, planning design, implementation, monitoring and evaluation, thus improving service delivery outcomes. The Continuum Model for Evidence Use as explained in detail in Chapter Three, stresses knowledge of what counts as evidence; its use in decision-making; access; and influence in programmes and policies. The RCM supports the continuous use of records as sources of evidence. The model proposed by this study presents the types of records to be used in each stage of the decision-making process. In other words, what counts as sources of evidence. The other three sources of evidence, namely research reports, stakeholder evidence and knowledge of experts are included to demonstrate that multiple sources must be considered, from which the best evidence is selected and used for decision-making. Additionally, the model encourages the use of enterprise content management systems to store and access organizational records. Figure 7.1 presents the proposed model.

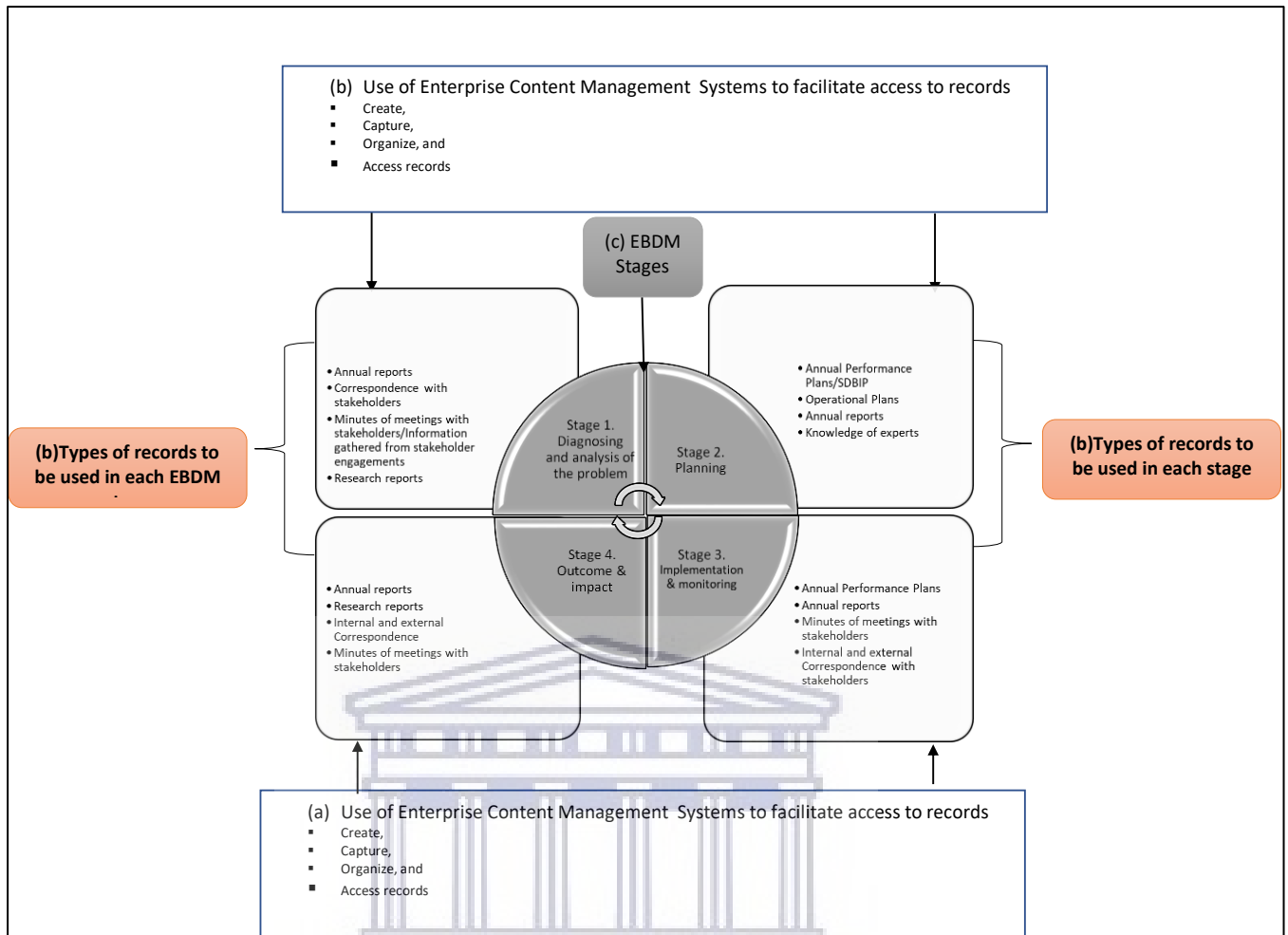


Figure 7.1. Proposed model to foster the use of records as evidence in EBDM

The proposed model presents three constructs, the use of ECM systems to facilitate access to organizational records; the types of records which count as sources of evidence, the use of records as evidence to inform the EBDM process, as explained in the following sections.

a) Use of Enterprise Content Management systems to facilitate access to records

In Chapter Three, it was highlighted that one of the constructs of the Continuum Model for Evidence Use is wide dissemination of evidence in various channels and mediums. Such access channels include systems that promote and deliver evidence to facilitate its adoption and use. As mentioned in Chapter One, the most common barrier to using records for decision-making in the public sector is inaccessibility due to poor records management. However, the current study revealed that records were

the most used source of evidence for decision-making in Western Cape governmental bodies. Additionally, the study discovered that access to organizational records was through respective registries of the governmental bodies. In Chapter One, it was mentioned that the RCM framed the Records Management Policy of Western Cape Governmental Bodies due to the advent of the use of ICTs to create, manage and access records. The RCM promotes continuous use of records as evidence without time nor space limitations to accessing and using records. Therefore, to facilitate the continuous use of records, the model proposes that ECM systems be implemented, adopted and utilized in Western Cape governmental bodies for faster access to organizational records. The use of ECM systems would centralize and facilitate faster access to records online, rather than physically visiting registries. Alalwan, Thomas and Weistroffer (2014, 3), assert that ECM systems enhance organizational processes by providing operational, strategic and decision support functions. The operational functions include, capturing; creating; indexing; organizing; searching; accessing; central storage; maintenance of all organizational content regardless of format, for cross-departmental collaboration and sharing of content. Salamntu (2016, 79) adds that the central storage of records facilitates easier and faster retrieval of records as well as controlled access to content for security of information.

The ECM strategic and decision support capabilities contribute to decision-making improvement in that, they allow for increased quantity and quality of information to assist decision-makers; faster access to information; the sharing of business processes and information; prevention of duplication of similar records, thus, speeding up the decision-making process (Alalwan & Weistroffer 2011, 8; Rosman 2020, 61; Salamntu 2016, 54). ECM systems thus allow for storage and access to records to facilitate their use for decision-making. The proposed model shows that records for use through all the EBDM stages would be available from the respective ECM systems of the Western Cape governmental bodies.

b) Type of records for use in evidence-based decision-making stages

EBDM brings evidence into daily practice and improves outcomes (Spencer, Detrich, & Slocum 2012, 128). However, for evidence to be used, the decision makers must know what counts as evidence and its availability (Nutley, Walter & Davies 2002). The findings of the study revealed that the senior managers know the sources of evidence available and used them for decision-making. Organizational

records were the most used source of evidence. Additionally, the study revealed the types of organizational records which were used by senior managers.

To foster the continuous use of records as sources of evidence for EBDM, the proposed model presents examples of types of records that may be used in the stages of the decision-making process. The researcher acknowledges that some organizations may have other records they prefer to use, therefore, the ones mentioned in the model should be used as a guide based on the findings of this study. The proposed model shows that multiple sources of evidence should be consulted, and the most relevant ones used for EBDM (Hall & Jennings 2010, 139). Additionally, the use of records throughout the EBDM stages shows that the model upholds the RCM constructs discussed in detail in 3.4. namely, the continuous use of records as evidence of business activities and its support for the use of electronic records. Additionally, the continuous use of records in the EBDM stages confirms the importance of records as sources of evidence. The types of records used by senior managers in this study were, annual performance plans; annual reports; Internal and external correspondence; and meeting minutes. Based on the types of records identified by senior managers, the model presents examples of records which count as sources of evidence in each EBDM stage, as discussed in the following sections.

Stage 1: Diagnosing and analysis of the problem

Rousseau (2018, 3) asserts that organizational decisions are made because of problems, challenges or opportunities which have transpired. Stage 1 thus involves identifying and analyzing a problem or service delivery need. This stage is the most important because it involves understanding the problem or need clearly for the right decision to be made. Enough time must be dedicated to Stage 1 to allow decision makers to understand what is needed, where, why and how. Afterwards, decision makers must evaluate and analyze multiple sources of evidence to decide on programs to implement. Among the sources of evidence, records such as annual reports; correspondence with stakeholders in which a problem or need for a service was expressed; minutes of meetings with stakeholders regarding the service delivery need; findings of research commissioned by respective governmental bodies or from journals; expert opinions; and environmental analysis reports, could provide evidence needed to make

a decision. Importantly, stakeholder evidence should be considered (Rousseau 2018, 11), hence correspondence with them and minutes of engagements are included in Stage 1.

Stage 2: Planning

Stage 2 involves planning for implementation of service delivery programs. Performance indicators are developed to measure and monitor progress of a service delivery program. Records such as, strategic plans; annual reports; annual performance plans; service delivery and budget implementation plans; statistical reports, operational plans; financial records can assist decision makers with vital planning information such as situational analysis, available funding, and how services will be implemented. In some cases, knowledge of internal and external experts is transformed into policies, procedure manuals and documented lessons learned. These afore-mentioned records can be valuable during the planning stage.

Stage 3: Program implementation & monitoring

During Stage 3, the service delivery program is implemented and monitored. Records such as research reports; policies and standard operating procedure manuals, can provide evidence to guide the successful implementation of the program. Additionally, performance reports; minutes of meetings with stakeholders; program meeting minutes; correspondence with stakeholders; budget expenditure reports; and evaluation reports would be useful in providing evidence on how progress of the service delivery program. The records would thus provide evidence to determine the success of the program; whether interventions are needed. The records can provide evidence which may lead to decisions to continue or discontinue a program.

Stage 4: Outcome and impact

After a service delivery program has been implemented, decision makers want to know whether it has achieved what it was intended for. Evidence thus, is needed to inform them of the outcomes. Records such as annual reports; evaluation reports; program close-out reports; program meeting minutes; research reports; correspondence from stakeholders; minutes of meetings with stakeholders; budget expenditure reports provide the required evidence during Stage 4. Additionally, if the program has not

achieved the intended outcomes, evidence is needed to inform strategies to help achieve goals and the decision-making cycle resumes.

7.4.5 Service delivery improvement programs implemented from using records as evidence for evidence-based decision-making

EBDM inculcates the use of evidence for service delivery decisions. Moreover, multiple sources of evidence must be consulted and evaluated for the best one to be used for decision-making. The study recommends that senior managers use the proposed model for future service delivery decision-making, since it serves as a guide on the type of evidence to be used in all the service delivery planning and implementation stages. This would ensure proper implementation of EBDM in Western Cape governmental bodies. Moreover, the proposed model is built on the NEPF for seamless adoption and use. The study further recommends that senior managers keep track and record evidence-based service delivery improvement programs for reporting on EBDM implementation progress within the Province of the Western Cape.

7.5 Contribution and originality of the study

Hofstee (2006, 160) and Oliver (2008, 134) advise that a researcher should briefly clarify what the contribution of their study is without over-emphasizing. This study found that most of the records management literature in the public sector is on the management and care of records to enable their use. While the management of records is vital, they must be used for what they were created for. This study therefore contributes to the scant literature on the use of records in public administration. In addition, because EBDM emerged from the health professions, scientific evidence has been considered the most important source of evidence. This study, however, has identified other sources which are mostly preferred and used as sources of evidence in public administration. The current study thus adds to the body of EBDM literature in public administration. Furthermore, the study further strengthens the thesis in records management literature, that the use of records as sources of evidence contributes to improved service delivery.

7.6 Implications to theory and practice

The implications of this study to existing EBDM theory and practice are explained in the following sections.

7.6.1 Implications to theory

The study did not find an applicable EBDM and Archival Science theory. Therefore, several EBDM models were investigated. The Continuum Model of Evidence Use and Records Continuum Models were found to be the most appropriate to frame this study. However, some weaknesses were identified which this study could strengthen. The findings of this study revealed that other sources of evidence, mostly, organizational records are important and mostly used for EBDM. Furthermore, the model proposed by this study demonstrates each EBDM stage where records as sources of evidence could be used. Therefore, the Continuum Model of Evidence Use could be augmented to show how and when sources of evidence could be used to inform decisions.

Time constraints and skills to search, access, organize and evaluate sources of evidence were highlighted as weaknesses of some of the EBDM models. The findings of the study however revealed that sources of evidence were accessed from organizational registries. By suggesting the use of ECM systems to create, store, manage, and facilitate faster access to records, this model proposed by this study promotes centralized access to records. In addition, the findings support the Continuum Model of Evidence Use which stresses the use of systems to facilitate access to sources of evidence. Theoretically, this study advances the Continuum Model of Evidence Use by proposing a practical model for using sources of evidence for decision-making. Additionally, this study advocates the RCM as an appropriate archival science model for the continuous use of records as sources of evidence.

7.6.2 Implication to practice

The findings of this study as discussed in the previous section, revealed that records are used as sources of evidence for EBDM and are accessed from registries. By implementing the recommendations of this study and adopting the proposed model, records managers of governmental bodies, therefore, would advance the continuous use of records as sources of evidence in addition to management of records.

Moreover, the implementation of ECM systems would ease the burden of physical access to records and make electronic records management a reality. Additionally, if the recommendations and proposed model are accepted and adopted by senior managers, implementation of EBDM would be improved for the benefit of all in the Western Cape province and the rest of South Africa.

7.7 Suggestions for further research

A study does not exist in isolation but within existing studies and may motivate further research in the same or related fields (Oliver 2008, 137). Further research is suggested because of scope of a study is limited and thus may not include some aspects of the research problem. In addition, some topics worth further research may have been revealed in the study, or the study can be replicated by other scholars in different settings and methods. Nevertheless, what is recommended for further research should have useful contribution to existing research (Hofstee 2006, 162). This study analyzed previous research in Chapter Two. The most important areas of further research identified in this study are that,

- i. similar studies be conducted in other provinces of South Africa to add to the body of literature on the use of records for decision-making in the public sector;
- ii. case studies be conducted in some of the Western Cape governmental bodies to gain more insight into the research problem; and
- iii. an investigation into the knowledge management practices in the South African public sector be conducted to propose an evidence informed national strategy to standardize KM.

7.8 Final conclusion

The problem statement of this study was, to what extent were records as sources of evidence, used to support service delivery decisions by senior managers in Western Cape governmental bodies. The aim of the study, therefore, was to determine the extent to which records were used for evidence-based decision-making by senior managers in Western Cape governmental bodies. The literature review revealed that EBDM implementation varies and depends on its knowledge by decision makers. The literature review revealed that unstandardized knowledge of sources of evidence to be used in EBDM

hampers its successful implementation in public administration. Some EBDM and records management models and theoretical frameworks were analyzed to support the choice of the one used in this study. The theoretical frameworks chosen and used to frame the current study, were the Continuum Model of Evidence Use and the Records Continuum Model. The former posits that the use of evidence for EBDM is a continuum of stages, namely the conceptual use and instrumental use. The RCM, on the other hand, promotes the continuous use of records as evidence. The study was a cross-sectional quantitative survey conducted in Western Cape governmental bodies from a sample of two hundred and forty-three (243) senior managers selected using stratified random sampling. From the sample, one hundred and sixty-three (163) senior managers from thirty-one (31) governmental bodies responded to the survey. The descriptive data confirmed that the results of the study could be inferred back to the population.

The final conclusion of the study is that knowledge of EBDM varies among senior managers and thus recommended that a national KM programmes be developed to inculcate knowledge sharing to standardize as well as increase EBDM knowledge and its implementation in governmental bodies. The study further concludes that senior managers of Western Cape governmental bodies consider the use of records as important for service delivery decisions and always used them for EBDM. The research problem was therefore addressed. According to the Continuum Model of Evidence use, therefore, the use of evidence in Western Cape governmental bodies is at the instrumental stage. To validate that records were used for EBDM, the study revealed that eighty-three (83) service delivery improvement programs aligned to the NDP and PSGs, were implemented when the study was conducted. To further promote the use of records for EBDM, the study proposed a model to foster the use of records as sources of evidence in EBDM. The proposed model would serve as a guide for EBDM implementation in the public sector. The proposed model encourages the transition of records management programs of Western Cape governmental bodies from the physical to electronic and from the RLM to the RCM which frames the Records Management Policy of Western Cape governmental bodies (Republic of South Africa, 2017). Moreover, the study upholds the continuous use of records as evidence with no restrictions of time nor space.

REFERENCES

- Abankwah, R. (2011). Policies and strategies that govern the management of audio-visual materials in Eastern and Southern Africa Regional Branch of the International Council of Archives. *Journal of the South African Society of Archivists* 44, 90-106.
- Abuki, B.J. (2014). *The role of records management in public service delivery in county governments in Kenya: a case study of Kisii county government headquarters*. M.LIS Thesis, University of Nairobi, Nairobi.
- Acland, G. (1992). Managing the record rather than the relic. *Archives and manuscripts* 20(1), 58-62.
- Adolphus, M. (2019). *Using evidence-based practice to inform decision-making*. [Online]. Available at: http://www.emeraldgrouppublishing.com/librarians/info/viewpoints/evidence_based_practice.htm
- Adom, D., Hussein, E. K., & Agyem, J. A. (2018). Theoretical and conceptual framework: mandatory ingredients of a quality research. *International Journal of Scientific research*, 7(1), 438-441.
- AfriGIS. (2020). *Map data*. [Online]. Available at: www.afrigis.co.za
- Alalwan, J. A., Thomas, M. A., & Weistroffer, H. R. (2014). Decision support capabilities of enterprise content management systems: an empirical investigation. *Decision Support Systems*, 68, 39-48.
- Alavi, S. H., Marzban, S., Gholami, S., Najafi, M., & Rajaei, R. (2015). How much is managers' awareness of evidence-based decision-making? *Biomedical and Pharmacology Journal*, 8(2), 1015-1023.
- Archival Platform. (2015). *State of the archives: an analysis of South Africa's archival system, 2014*. Cape Town, University of Cape Town.
- Asogwa, B.E. (2012). The challenge of managing electronic records in developing countries: implications for records managers in sub Saharan Africa. *Records Management Journal* 22(3),198-211.
- Atherton, J. (1985). From Life Cycle to Continuum: some thoughts on the records management archives relationship. *Archivaria* 21(Winter), 43-51.
- Australian Bureau of Statistics (2010). *A guide for using statistics for evidence-based policy*. Commonwealth of Australia, Australian Bureau of Statistics.
- Baba, V.V., & HakemZadeh, F. (2012). Toward a theory of evidence-based decision-making. *Management Decision*, 50(5), 832–867.
- Babbie, E. (2017). *The basics of social research*. Boston, Cengage.
- Baker, B., & Welner, K. G. (2012). Evidence and rigor: scrutinizing the rhetorical embrace of evidence-based decision-making. *Educational Researcher* 41(3), 98–101.
- Balnaves, M., & Caputi, P. (2011). Methods of inquiry: it is a capital mistake to theorize before one has data. In: *Introduction to quantitative research methods*. London, Sage.
- Balnaves, M. & Caputi, P. (2001). *Introduction to quantitative research methods: an investigative approach*. London, Sage.

- Banks, G. (2009). Evidence-based policymaking: what is it? how do we get it? *ANZSOG/ANU Public Lecture Series 2009*, Canberra, 4 February.
- Bantin, P.C. (1998). Strategies for managing electronic records: a new archival paradigm? an affirmation of our archival traditions? *Archival Issues 23(1)*: 17-32.
- Barends, E., Rousseau, D.M. & Briner, R.B. (2014). *Evidence-based management: the basic principles*. Amsterdam: Centre for Evidence-based Management.
- Barends, E., Villanueva, J., Rousseau, D. M., Briner, R. B., Jepsen, D. M., Houghton, E., & Ten Have, S. (2017). Managerial attitudes and perceived barriers regarding evidence-based practice: an international survey. *PLoS one*, 12(10), 1-15.
- Beins, B.C. (2009). *Research methods: a tool for life*. Boston, Pearson.
- Belling, S.D. (2009). Who are they? employee perception of organizational decision-making. *PMI Global Congress 2009*, Orlando.
- Bernard, H.R. (2012). *Social research methods: qualitative and quantitative approaches*. 2nd ed. London, Sage.
- Bertram, C. (2010). *Understanding research: an introduction to reading research*. 3rd ed. Pietermaritzburg, School of Education and Development, University of KwaZulu-Natal.
- Bertram, C. & Christiansen, I. (2014). *Understanding research: an introduction to reading research*. Pretoria, Van Schaik.
- Bester, K.J. (2017). *The external validity of the South African substance use contextual risk instrument: predictive validity*. M.Psy, Thesis, University of the Western Cape, Cape Town.
- Billesberger, V.M. (1990). *Municipal recordkeeping in British Columbia: an exploratory survey*. M.A.S Thesis, University of British Columbia, Vancouver.
- Blaikie, N. (2003). *Analysing quantitative data: from description to exploration*. London: Sage.
- Bless, C., Higson-Smith, C., & Kagee, A. (2006). *Fundamentals of social research methods: an African perspective*. Cape Town, Juta.
- Blume, S. (2017). In search of experiential knowledge. *Innovation: The European Journal of Social Science Research*, 30(1), 91-103.
- Borkman, T. (1976). Experiential knowledge: a new concept for the analysis of self-help groups. *Social Service Review* 50 (3), 445-456.
- Boulding, W., Moore, M.C., Staelin, R., Corfman, K.P., Dickson, P.R., Fitzsimons, G., Gupta, S., Lehmann, D.R., Mitchell, D.J., Urbany, J.E. & Weitz, B.A. (1994). Understanding managers' strategic decision-making process. *Marketing Letters*, 5(4), 413-426.
- Boulle, J., Davids, M., Mabogoane, T., & Goldman, I. (2015). *Early Childhood Development evidence-based policy making and implementation case study*. [Online]. Available at: <https://evaluations.dpme.gov.za/images/gallery/ECD%20Evidence%20Based%20Policy%20Making%20Case%20Study.pdf>
- Bryman, A. (2016). *Social research methods*. Oxford, Oxford University.
- Bryman, A. (2012). *Social research methods*. Oxford, Oxford University.
- Bryman, A. & Bell, E. (2014). *Research methodology: business and management contexts*.

Cape Town, Oxford University.

- Bryman, A. & Bell, E. (2011). *Research methodology: business and management contexts*. Cape Town, Oxford University.
- Burkhart, A., & McCrae, K. (2020). ACT Alberta: a Canadian case study of a collaborative and evidence-based approach to address human trafficking. In: J. Winterdyck & J. Jones, eds., *Palgrave International handbook of human trafficking*. London: Palgrave MacMillan, pp.1553-1567.
- Buss, T.F. & Shillabeer, A. (2011). The emerging field of evidence-based public management. In: A. Shillabeer, T.F. Buss and D.M. Rousseau (eds.). *Evidence-based public management: practices, issues, and prospects*. New York, Sharpe, pp.3-16.
- Centre for Disease Control.(2020). Understanding Evidence: experiential evidence module summary. [Online]. Available at: https://vetoviolence.cdc.gov/apps/evidence/docs/Experiential_82412.pdf#
- Centre for Evidence-based Management.(2019) *What is evidence from the organisation?* [Online]. Available at: <https://cebma.org>
- Cerda-Bertomeu, M.J., & Sarabia-Sanchez (2016) Stakeholders' perceptions of place branding and the role of the public sector: an exploratory analysis. *Place Branding and diplomacy*, 12(4), 299-313.
- Cerrillo-i-Martinez, A. (2012). The reuse of public sector information in Europe and its impact on transparency. *European Law Journal* 18(6), 770-792.
- Chan, G. (2018). *Performance information use in the Canadian higher education sector*. D.BA. Thesis. Athabasca University, Alberta.
- Chawinga, W.D. (2019) *Research data management in public universities in Malawi*. Ph.D. Thesis, University of the Western Cape, Cape Town.
- Chinyemba, A. & Ngulube, P. (2005). Managing records at higher education institutions: a case study of the University of KwaZulu-Natal, Pietermaritzburg Campus. *South African Journal of Information Management*, 7(1), 1-1. <https://doi.org/10.4102/sajim.v7i1.250>
- Choo, C.W. (1998). *Information management for the intelligent organisation: the art of scanning the environment*. New Jersey, Information Today.
- Coetzer, X.P. (2012). *The status of records management at the University of Zululand*. M.IS Thesis, University of Zululand, KwaDlangezwa.
- Cochrane.org. (2020). *Cochrane*. [Online]. Available at: <https://www.cochrane.org/>
- Coote, A., Allen, J. & Woodhead, D. (2004). *Finding out what works: building knowledge about complex, community-based initiatives*. London, King's Fund.
- Cordis, A. S., & Milyo, J. (2013). Measuring public corruption in the United States: evidence from administrative records of federal prosecutions. [Online]. Available at: http://web.missouri.edu/~milyoj/files/Measuring%20Corruption_V1.3.pdf
- Cox, R.J. (2000). *Closing an era: historical perspectives on modern archives and records management*. Connecticut, Greenwood.
- Creative Research Systems. (2020) Survey system. [Online]. Available at: www.surveysystem.com

- Creswell, J.W. (2014) *Research design: a qualitative, quantitative and mixed method approaches*. London, Sage.
- Creswell, J.W. & Creswell, J.D. (2018). *Research design: qualitative, quantitative, and mixed methods approaches*. Los Angeles, Sage.
- Criado-Perez, C., Collins, C.G., Jackson, C.J., Oldfield, P., Pollard, B., & Sanders, K. (2019). Beyond an ‘informed opinion’: evidence-based practice in the built environment. *Architectural Engineering and Design Management*, 16(1), 23–40.
- Cumming, K. (2010). Ways of seeing: contextualising the continuum. *Records Management Journal* 20(1), 41-52.
- Da Costa, W. A. J. (2012). *The Impact of the Protection of State Information Bill on Media Freedom in South Africa*. M.Phil. Thesis, Nelson Mandela Metropolitan University, Port Elizabeth.
- D’Agostino, D., Borg, M., Hallett, S. H., Sakrabani, R. S., Thompson, A., Papadimitriou, L., & Knox, J. W. (2020). Multi-stakeholder analysis to improve agricultural water management policy and practice in Malta. *Agricultural Water Management*, 229, 1-8.
- David, R. (2017). Contribution of records management to audit opinions and accountability in government. *South African Journal of Information Management* 19(1), 1-14.
- Dawha, E.M.K., & Biu, A.A.(1993). Archive and record management in a typical municipal council in Nigeria. *New Library World* 94(4),19-29.
- Degen, R. J. (2017). Wisdom, uncertainty, and ambiguity in management decisions based on experiences and the trustworthiness of research methods to substantiate them. *Revista Ibero Americana de Estrategia*, 16(4), 6-22.
- Diko, N., & Bantwini, B.D. (2013). Research politics: some issues in conducting research for government as a client. *Perspectives in Education* 31(4), 15-26.
- Dillman, D.A., Smyth, J.D., & Christian, L.M. (2009). *Internet, mail and mixed-mode surveys: the tailored design method*. New Jersey, Wiley.
- Duranti, L. (2018). Whose truth? Records and archives as evidence in the era of post-truth and disinformation. *Archival Futures*, 19–32.
- Duranti, L. (2010). Concepts and principles for the management of electronic records, or records management theory is archival diplomatics. *Records Management Journal* 20(1), 78-95.
- Duranti, L. (1998). *Diplomatics: new uses for an old science*. Lanham, MD, Society of American Archivists.
- Duranti, L. (1994). The concept of appraisal and Archival Theory. *American Archivist* 57 (Spring), 328-344.
- Duranti, L. (1989). Diplomats: new uses for an old science. *Archivaria* 28(Summer), 7-27.
- Duranti, L., & Jansen, A. (2017). *Authenticity of digital records: an archival diplomatics framework for digital forensics*. Unpublished manuscript, University of British Columbia, Vancouver.
- Duranti, L., & Rogers, C. (2011). Educating for trust. *Archival Science*, 11(3-4), 373-390.

- Encyclopaedia Britannica (2013). History of South Africa. [Online] Available from:
<https://www.britannica.com/place/South-Africa/The-Late-Stone-Age>
- Encyclopaedia Britannica (2009). Bantustan. [Online] Available from:
<https://www.britannica.com/topic/Bantustan>
- Erima, J.A., & Wamukoya, J. (2012). Aligning records management and risk management with business processes: a case study of the Moi University in Kenya. *Journal of the South African Society of Archivists*, 45, 24-38.
- Evans, J., McKemmish, S., & Rolan, G. (2017). Critical approaches to archiving and recordkeeping in the continuum. *Journal of Critical Library and Information Studies*, 1(2), 1-38.
- Finchman, J.E. (2008). Response rates and responsiveness for surveys, standards and the journal. *American Journal of Pharmaceutical Education*, 72(2), 43.
- Fink, A. (2009). *How to conduct surveys: a step by step guide*. Los Angeles, Sage.
- Flick, U. (2015) *Introducing research methodology: a beginner's guide to doing a research project*. Los Angeles, Sage.
- Flynn, S.J.A. (2001). The Records Continuum Model in context and its implications for archival practice. *Journal of the Society of Archivists* 22 (1): 79-93.
- Fouche, C.B., & Delpont, C.S.L. (2005). Introduction to the research process. In: A.S.S. de Vos., H. Strydom, C.B. Fouche, & C.S.L. Delpont. *Research at grass roots for the social sciences and human service professions*. Pretoria, Van Schaik, pp.71-85.
- Fouche, C.B., & De Vos, A.S. (2005) Problem formulation. In: A.S.S. De Vos, H. Strydom, C.B. Fouche, & C.S.L. Delpont. *Research at grass roots for the social sciences and human service professions*. Pretoria, Van Schaik, pp.100-110.
- Fowler, F.J. (2009). *Survey research methods*. Thousand Oaks, Sage.
- Franks, P.C. (2013). *Records and information management*. London, Facet.
- Friesen, N. (2012). Experiential evidence: I, we, you. In N. Friesen (et al. eds.). *Hermeneutic phenomenology in education*. Leiden, Brill Sense, pp. 39-54
- Frings-Hessami, V. (2020). The societal embeddedness of records: teaching the meaning of the fourth dimension of the Records Continuum Model in different cultural contexts. *Archival Science* (August), 1-16. <https://doi.org/10.1007/s10502-020-09349-6>
- Gaffoor, S., & Cloete, F. (2010). Knowledge management in local government: the case of Stellenbosch Municipality. *South African Journal of Information Management*, 12(1), 1-7.
- Gauld, C. (2010). *The fantasy of the corroborative and transformative archive: the authority of archival beginnings*. PhD Thesis, University of Glasgow, Glasgow
- Gerrish, K., & Clayton, J. (2004). Promoting evidence-based practice: an organizational approach. *Journal of Nursing Management*, 12(2), 114-123.
- Gibbons, L. (2016). Exploring social complexity: Continuum Theory and a research design model for archival research. *Research in the Archival Multiverse*, 762-788.

- Gillilan-Swetland, A.J. (2000). *Enduring paradigm, new opportunities: the value of the archival perspective in the digital environment*. Washington, Council on Library and Information Resources.
- Glassman, D. (2020). Facebook is creating records—but who is managing them? *Archives and Manuscripts*, 48(1), 45-58.
- Groves, R. M., & Schoeffel, G. J. (2018). Use of administrative records in evidence-based policymaking. *The Annals of the American Academy of Political and Social Science*, 678(1), 71-80.
- Guercio, M. (2001). Principles, methods, and instruments for the creation, preservation, and use of archival records in the digital environment. *The American Archivist*, 64(2), 238-269.
- HakemZadeh, F. (2015). *Evidence based management: theory, model, test, and template*. PhD Thesis, McMaster University, Hamilton, Ontario.
- Hall, J.L. & Jennings, E.T. (2010). Assessing the use and weight of information and evidence in U.S. state policy decisions. *Policy and Society* 29, 137–147.
- Harris, V. (1997). *Exploring archives: an introduction to archival ideas and practice in South Africa*. Pretoria, National Archives.
- Head, B. (2010). Reconsidering evidence-based policy: key issues and challenges. *Policy and Society*, 29, 77–94.
- Head, B., Ferguson, M., Cherney, A., & Boreham, P. (2014). Are policy makers interested in social research? Exploring the sources and uses of valued information among public servants in Australia. *Policy and Society*, 33, 89-101.
- Heale, R., & Twyncross, A. (2015) Validity and reliability in quantitative studies. *Evidence-based nursing*, 18(3), 66-67.
- Hendrich, G. (2017). A rich storehouse for research: the historical development of the Western Cape Archives and Records Service. *Journal for Contemporary History* 42(2),74-97.
- Hofstee, E. (2006). *Constructing a good dissertation: a practical guide to finishing a Masters, MBA or PhD on schedule*. Johannesburg, EPE.
- Holmes, O. (1961). Sir Hilary Jenkinson, 1882-1961. *The American Archivist*, 24(3), 345-347.
- International Records Management Trust. (2015). *Risks for records in the digital environment*. [Online]. Available at <https://www.irmt.org>
- Iwhiwhu, E.B. (2005). Management of records in Nigerian universities: problems and prospects. *Electronic Library*, 23(3), 345-355.
- Jenkinson, H. (1937). *A Manual of Archive Administration*. London, Percy Lund.
- Jenkinson, H. (1922). *A manual of archive administration including the problems of war archives and archive making*. Oxford, Clarendon.
- Jennings, E.T., & Hall, J. L. (2012). Evidence-based practice and the use of information in state agency decision-making. *Journal of Public Administration Research and Theory*, 22(2), 245-266.

- Johnson, R.B., & Onwuegbuzie, A.J. (2004) Mixed methods research: a research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.
- Kalusopa, T. (2011). *Developing an e-records readiness framework for labour organisations in Botswana*. D.Litt. et Phil Thesis, University of South Africa, Pretoria.
- Karabinos, M.J. (2015). *The shadow continuum: testing the records continuum model through the Djogdja Documenten and the migrated archives*. Ph.D. Thesis, University of Leiden, Leiden.
- Katuu, S. (2015). The development of archives and records management education and training in Africa—challenges and opportunities. *Archives and Manuscripts*, 43(2), 96-119.
- Kavanagh, S. & Levinson, N. (2016). Running government like a business scientist: the rise of evidence-based decision-making. *Government Finance Review*. [Online]. Available at <https://www.thefreelibrary.com>
- Kay, A. (2011). Evidence-based policymaking: the elusive search for rational public administration. *Australian Journal of Public Administration*, 70(3), 236–245.
- Kazman Kohn, M., Berta, W., Langley, A., & Davies, D. (2011). Evidence-based decision-making in health care settings: from theory to practice. In: J.D. Blair, & M.D. Fottler (eds.). *Biennial Review of Health Care Management*, 11, pp.215-234.
- Kemoni, H. (2008). Theoretical framework and literature review in graduate records management research. *African Journal of Library, Archives and Information Science* 18(2), 103-117.
- Ketelaar, E. (1996). Archival theory and the Dutch Manual. *Archivaria* 41, 31-40.
- Khayri Ba Tall, O. (2009). The role of national, regional, and international evaluation organisations in strengthening country-led monitoring and evaluation systems. In: M. Segone (ed.). *Country-led monitoring and evaluation systems: better evidence, better policies, better results*. New York, United Nations Children Emergency Fund, pp.119-134.
- Khumalo, S. (2018). *An investigation of a South African strategic state office records management alignment with international standard operating (ISO): a work in progress*. Unpublished manuscript.
- Kingsbury, N.J., Donova, N., Droitcour, J.A., & Shipman, S.L. (2011). Evidence-informed public management and evidence development at the government accountability office. In: A. Shillabeer, T.F. Buss, and D.M. Rousseau (eds.). *Evidence-based public management: practices, issues, and prospects*. New York, Sharpe, pp.171-184.
- Klareld, A. (2017). *Closer together or further apart? Public administration and archives in the digital age*. D.Comp. Thesis, Mid Sweden University, Stockholm.
- Kyobe, M.E., Molai, P., & Salie, T. (2009). Investigating electronic records management and compliance with regulatory requirements in a South African university. *South African Journal of Information Management*, 11(1), 1-16.
- Kumar, R. (2014) *Research methodology: a step by step guide for beginners*. Los Angeles, Sage.
- Langa, M., & Kiguwa, P. (2013). Violent masculinities and service delivery protests in post-apartheid South Africa: a case study of two communities in Mpumalanga. *Agenda*, 27(1), 20-31.
- Langer, L., Erasmus, Y., Tannous, N., & Stewart, R. (2017). How stakeholder engagement has led us to reconsider definitions of rigour in systematic reviews. *Environmental Evidence*, 6(20), 1-6.

- Lappin, J. (2010). What will be the next records management orthodoxy? *Records Management Journal* 20(3), 252-264.
- Latham, G. P. (2007). A speculative perspective on the transfer of behavioral science findings to the workplace: 'The times they are a-changin'. *Academy of Management Journal*, 50(5), 1027-1032.
- Leavy, P. (2017). *Research design: quantitative, qualitative, mixed methods, arts-based and community-based participatory research approaches*. New York, Guilford.
- Leedy, P.D. (1974) *Practical research: planning and design*. New York, MacMillan.
- Leedy, P.D., & Ormrod, J.E. (2015) *Practical research: planning and design*. Harlow, Pearson.
- Leedy, P.D., & Ormrod, J.E. (2010) *Practical research: planning and design*. Boston, Pearson.
- Lehtinen, J., & Aaltonen, K. (2020). Organizing external stakeholder engagement in inter-organizational projects: opening the black box. *International Journal of Project Management*, 38(2), 85-98.
- Lengyel, D.M. (2018). *A critical examination of the relationships between risk management, knowledge management and decision-making*. PhD Thesis, George Washington University, Washington, D.C.
- Leoveanu, A.C. (2013). Rationalist model in public decision-making. *Journal of Public Administration, Finance and Law* 4, 43-54.
- Lewin, K. (1951). *Field theory and social science*. New York, Harper & Row.
- Lindquist, E. (2013). Putting citizens first: engagement in policy and service delivery for the 21st century. In: E. Lindquist, S. Vincent, & J. Wanna. (eds). *Putting citizens first : engagement in policy and service delivery for the 21st century*. Canberra, Australian National University, pp.1-22.
- Livelton, T. (1991). *Public records: a study in archival theory*. M.AS Thesis, University of British Columbia, Vancouver.
- Lundgren, H., & Kennedy, M. (2009). Supporting partner country ownership and capacity in development evaluation: the OECD evaluation network. In: M. Segone (ed.). *Country-led monitoring and evaluation systems: better evidence, better policies, better results*. New York: United Nations Children Emergency Fund, pp.77-95.
- Luthuli, L. P. (2017). *Medical records management practices in public and private hospitals in Umhlathuze Area, South Africa*. M.LIS Thesis, University of Zululand, Kwa-Dlangezwa.
- Luyombya, D. (2010). *Framework for effective public digital records management in Uganda*. PhD. Thesis, University College London, London.
- Lyons, J. C. (2016). Experiential evidence? *Philosophical Studies*, 173(4), 1053-1079.
- Mabote, R. (1998). The media: South Africa's 10th province. *Ecquid Novi*, 19(2), 88-95.
- MacNeil, H. (2001). Trusting records in a postmodern world. *Archivaria*, 51, 36-47.
- Makhedama, M. (2014). *Assessing the effectiveness of public participation in Integrated Development Planning processes in the King Sabata Dalindyebo Local Municipality, Province of the Eastern Cape*. M.P.Admin. Thesis, University of Fort Hare, Alice.

- Makhura, M.M. (2005). *The contribution of records management towards and organisation's competitive advantage*. D. Litt et Phil Thesis, University of Johannesburg, Johannesburg.
- Managa, A. (2012). Unfulfilled promises and their consequences: a reflection on local government performance and the critical issue of poor service delivery in South Africa. *Africa Institute of South Africa Briefing*, 76(May), 1-9.
- Mannie, A., Van Niekerk, H. J., & Adendorff, C. M. (2013). Significant factors for enabling knowledge sharing between government agencies within South Africa. *South African Journal of Information Management*, 15(2), 1-8.
- Marais, L., & Matebesi, Z. (2012). Evidence-based policy development in South Africa: the case of Provincial Growth and Development Strategies. *Urban Forum*, 357-371.
DOI 10.1007/s12132-012-9179-4.
- Marshall, C. & Rossman, G. (2006). *Designing qualitative research*. California, SAGE
- Marutha, N. (2019). The application of legislative frameworks for the management of medical records in Limpopo Province, South Africa. *Information Development*, 35(4), 551-563.
- Marutha, N.S. (2016). *A framework to embed medical records management into the healthcare service delivery in Limpopo province of South Africa*. D.Litt et Phil Thesis, Pretoria, University of South Africa.
- Marutha, N.S. 2011. *Records management in support of service delivery in the public health sector of the Limpopo province in South Africa*. M.Inf.Sc. Thesis, University of South Africa, Pretoria.
- Mathebula, N.E. (2016). Community participation in the South African local government dispensation: a public administration scholastic misnomer. *Bangladesh e-Journal of Sociology*, 13(1), 18-28.
- Maxim, P.S., Garis, L, Plecas, D. & Davies, M. (2015). *The right decision: evidence-based decision-making for government professionals*. Abbotsford, University of Fraser Valley.
- Maxwell, J.A., & Loomis, D.M. (2003) Mixed methods design: an alternative approach. In: A. Tashakkori., & C. Teddlie (eds.). *Handbook of mixed methods in social and behavioral research*. Thousand Oaks, Sage, pp.241-272.
- May, B. L., & Fombad, M. (2019). Knowledge sharing at the Overstrand Municipality in Western Cape Hermanus, South Africa. *Libri*, 69(4), 325-336.
- McCarthy, G.J., & Evans, J. (2012). Principles for archival information services in the public domain. *Archives and Manuscripts* 40(1), 54-67.
- McKemmish, S. (2001). Placing Records Continuum theory and practice. *Archival Science* 1, 333-359.
- McKemmish, S., & Gilliland, A. (2013). Archival and recordkeeping research: past, present and future. In: K. Williamson, & G. Johanson (eds.). *Research methods: information, systems and contexts*. Victoria, Tilde University. pp.79-118.
- McKemmish S., Upward F.H. & Reed, B. (2010). Records continuum model. In: M.J. Bates, M. Niles-Maack (eds) *Encyclopedia of library and information sciences*, 3rd ed. New York, Taylor & Francis, pp. 4447-4459

- Meadke, W.O. (1981). *Information and Records Management*, 2nd ed. London, Glencoe.
- Megill, K.A. (2005). *Corporate memory: records and information management in the knowledge age*. Munich, KG Saur.
- Millar, L. (1999). *The management of public sector records: principles and context*. London, International Records Management Trust.
- Millar, L.A. (2010). *Archives: principles and practices*. London, Facet.
- Minnaar, F. (2010). *Strategic and performance management in the public sector*. Pretoria, Van Schaik.
- Mkhize, P.L. (2015). A knowledge sharing framework in the South African public sector. *South African Journal of Information Management*, 17(1), 1-10.
- Mnjama, N. (2004). Records and information: the neglected resource. *ESARBICA Journal* (23), 33-44.
- Momoti, N. (2017). *Records management for an intelligent university: the case of the University of the Western Cape*. M.LIS Thesis, University of the Western Cape, Cape Town.
- Momoti, N., & King, L. (2019). A records management model for an intelligent university. *Journal of the South African Society of Archivists*, 52, 79-94.
- Moore, N. (1997) *How to do research: the complete guide to designing and managing research projects*. London, Library Association.
- Morse, J.M., & Niehaus, L. (2009) *Mixed method design: principles and procedures*. California, Left Coast.
- Mosala-Bryant, N. N., & Hoskins, R. G. (2017). Motivational theory and knowledge sharing in the public service. *South African Journal of Information Management*, 19(1), 1-9.
- Mosweu, O. (2018) *A framework to authenticate records in a government accounting system in Botswana to support the auditing process*. PhD Thesis, University of South Africa, Pretoria.
- Mouton, J. (1996) *Understanding social research*. Pretoria, Van Schaik.
- Moynihan, D.P., & Ingraham, P.W. (2004). Integrative leadership in the public sector: a model of performance-information use. *Administration & Society*, 36(4), 427-453.
- Muhambe, B.H. (2018). *Information behaviour of African immigrants living in Cape Town, South Africa*. PhD. Thesis, University of the Western Cape, Cape Town.
- Muller, S., Feith, J.A., & Fruin, R. (1940). *Manual for the arrangement and description of archives*. Chicago, Society of American Archivists.
- Ncala, B.N.M. (2017). *Preservation of, and access to audio-visual records at the National Film, Video And Sound Archives of South Africa*. M.Inf. Thesis, University of KwaZulu-Natal, Pietermaritzburg.
- Ncoyini, S., & Cilliers, L. (2016). Critical success factors to improve knowledge sharing in South African Local Government. In: *Proceedings of the 28th Annual Conference of the Southern African Institute of Management Scientists*, pp.573-585.
- Neuman, W.L. (2014). *Social research methods: qualitative and quantitative approaches*. Harlow, Pearson.
- Ngoepe, M. (2020). Whose Truth Is True?: The Use of Archival Principles to Authenticate Oral History.

In *Handbook of Research on Connecting Research Methods for Information Science Research* (pp. 307-319). IGI Global.

- Ngoepe, M. (2019). Archives without archives: a window of opportunity to build inclusive archive in South Africa. *Journal of the South African Society of Archivists* 52, 149-166
- Ngoepe, M.S. (2014). The role of records management as a tool to identify risks in the public sector in South Africa. *South African Journal of Information Management* 16(1), 1-8.
- Ngoepe, M.S. (2012). *Fostering a framework to embed the records management function into the auditing process in the South African public sector*. D.Litt. et Phil Thesis, University of South Africa, Pretoria
- Ngoepe, M.S. (2008). *An exploration of records management trends in the South African public sector: a case study of the Department of Provincial and Local Government*. M.Inf.Sc. Thesis, University of South Africa, Pretoria.
- Ngoepe, M.S. & Ngulube, P. (2013). An exploration of the role of records management in corporate governance in South Africa. *SA Journal of Information Management* 15(2), 1-8.
- Ngulube, P. (2018). Overcoming the difficulties associated with using conceptual and theoretical frameworks in heritage studies. In: *Handbook of research on heritage management and preservation*. Hershey, IGI Global, pp.1-23.
- Ngulube, P. (2005) Research procedure used by Master of Information Studies students at the University of Natal in the period 1982–2002 with special reference to their sampling techniques and survey response rate: a methodological discourse. *The International Information and Library Review*, 37, 127-143.
- Ngulube, P., Mathipa, E. R., & Gumbo, M. T. (2015). Theoretical and conceptual frameworks in the social and management sciences. In: E.R. Mathipa, & M.T. Gumbo. *Addressing research challenges: making headway in developing researchers*. Johannesburg, MOSALA-Masedi, pp.43-66.
- Nilsen, P. (2015). Making sense of implementation theories, models and frameworks. *Implementation Science* 10 (53), 1-13.
- Ntontela, M. (2015). *An investigation of record-keeping as a catalyst in ensuring accountability and transparency: a case study of the provincial department of Basic Education in the Eastern Cape*. M.Admin. Thesis. University of Fort Hare, Alice.
- Nutley, S., Davies, H. & Walter, I. (2003). Evidence-based policy and practice: cross-sector lessons from the United Kingdom. *Social Policy Journal of New Zealand*, 20 (June), 29-48.
- Nutley, S.M., Walter, I. & Davies, H.T.O. (2009). *Using evidence: how research can inform public services*. Bristol, Policy.
- Nutley, S.M., Walter, I. & Davies, H.T.O. (2007). *Using evidence: how research can inform public services*. Bristol, University of Bristol.
- Nutley, S.M., Walter, I. & Davies, H.T.O. (2002). *From knowing to doing: a framework for understanding the evidence-into-practice agenda*. Fife, University of St. Andrews
- Nutley, S., Boaz, A., Davies, H., & Fraser, A. (2019). New development: What works now? Continuity and change in the use of evidence to improve public policy and service delivery. *Public Money & Management*, 39(4), 310-316.

- Nyaga, R. M., & Kemoni, G. W. K. P. H. (2020). Access and use of records through the cadastre system at the Ministry of Mining Headquarters, Nairobi. *Information and Knowledge Management* 10(2), 17-32.
- Oliver, P. (2008) *Writing your thesis*. Los Angeles, Sage.
- O'Reilly, C.A. (1982). Variations in decision makers' use of information sources: the impact of quality and accessibility of information. *Academy of Management Journal* 25(4), 756-771.
- Osunrinde, O., & Tiamiyu, M., (2017). Information identification, evaluation and utilization for decision-making by managers in South West Nigeria. *South African Journal of Information Management*, 19(1), 1-8.
- Paine Cronin, G., & Sadan, M. (2015). Use of evidence in policy making in South Africa: an exploratory study of attitudes of senior government officials. *African Evaluation Journal*, 3(1), 1-10.
- Parkhurst, J. (2017). *Politics of evidence: from evidence-based policy to the good governance of evidence*. London, Routledge.
- Pearce-Moses, R. (2005). *A glossary of archival and records terminology*. Chicago, Society of American Archivists.
- Pember, M. (1998). The rise of the "new age" records management professional: records management education and training in Australia. *Records Management Journal*, 8(3), 63-75.
- Petersen, K., & Gencel, C. (2013). Worldviews, research methods, and their relationship to validity in empirical software engineering research. In: *2013 Joint Conference of the 23rd International Workshop on Software Measurement and the 8th International Conference on Software Process and Product Measurement*, October, New York, IEEE, pp.81-89.
- Pfeffer, J., & Sutton, R.I. (2006). Evidence-based management. *Harvard business review*, 84(1), 62.
- Porumbescu, G.A. (2018). Assessing the implications of online mass media for citizens' evaluations of government. *Policy Design and Practice*, 1(3), 233-240
- Province of the Western Cape. (2005). *Provincial gazette 6264: Provincial Archives and Records Service of the Western Cape Act (No.3, 2005)*. Office of the Premier of the Province of Western Cape, Cape Town.
- Procter, M. 2008. Life before Jenkinson: the development of British Archival theory and thought at the turn of the Twentieth century. *Archives* 33(119), 136-157.
- Pullin, A.S., & Knight, T.M. (2003). Support for decision-making in conservation practice: an evidence-based approach. *Journal of Nature Conservation* 11, 83-90.
- Punch, K.F. (2003) *Survey research: the basics*. London, Sage.
- Punch, K.F. (2000). *Developing effective research proposals*. London, Sage.
- Radu, W.S., Morwe, K.L., & Bird, W.R. (2012). Do the media in South Africa offer alternatives to violence in their coverage of protests? *Communicare: Journal for Communication Sciences in Southern Africa*, 31 (Special Edition 1), 37-56.
- Rainey, H.G., Ronquillo, J.C., & Avellaneda, C.N. 2010. Decision-making in public organisations. In: P.C. Nutt, & D.C. Wilson (eds.). *Handbook of decision-making*. New Jersey, Wiley.
- Reay, T., Berta, W., & Kazman Kohn, M. (2009). What's the evidence on Evidence-Based Management? *Academy of Management Perspectives*, (November), 5-18.

- Reddy, P. S. (2016). The politics of service delivery in South Africa: The local government sphere in context. *The Journal for Transdisciplinary Research in Southern Africa*, 12(1), 1-8.
- Reed, B. (1997). Electronic records management in Australia. *Records Management Journal* 7(3), 191-204.
- Rehman, A.A., & Alharthi, K. (2016) An introduction to research paradigms. *International Journal of Educational Investigations* 3(8), 51-59.
- Republic of South Africa. (2020a). The National School of Government. [Online] Available at: <https://www.thensg.gov.za/>
- Republic of South Africa. (2020b). *Provincial Strategic Plan, 2019-2024*. Cape Town: Western Cape Province Department of the Premier.
- Republic of South Africa. (2019a). *Annual Report 2018/19*. Cape Town, Western Cape Province Department of Cultural Affairs and Sport
- Republic of South Africa. (2019b). *Constitution of the Republic of South Africa, 1996*. [Online]. Available at: <https://www.gov.za/documents/constitution-republic-south-africa-1996>
- Republic of South Africa. (2019c). *Government system*. [Online]. Available at: <https://www.gov.za/about-government/government-system>
- Republic of South Africa. (2019d). *Revised framework for strategic plans and annual performance plans*. Pretoria, Department of Planning, Monitoring and Evaluation.
- Republic of South Africa. (2018). *Provincial Strategic Plan 2019-2024*. Cape Town, Western Cape Province Department of the Premier.
- Republic of South Africa. (2017a). *Digitisation Policy of Western Cape governmental bodies*. Cape Town, Western Cape Province Department of Cultural Affairs and Sport.
- Republic of South Africa. (2017b). *Records Management Policy of Western Cape governmental bodies*. Cape Town, Western Cape Province Department of Cultural Affairs and Sport.
- Republic of South Africa. (2015a). *The Management Performance Assessment Tool (MPAT): improving management practices for better service delivery*. Pretoria, Department of Planning, Monitoring and Evaluation.
- Republic of South Africa. (2015b). *Twenty-year review South Africa 1994 – 2014*. Pretoria, Department of Planning, Monitoring, and Evaluation.
- Republic of South Africa. (2014). *Evidence-based policy making and implementation: overview paper*. Pretoria, Department of Planning, Monitoring, and Evaluation.
- Republic of South Africa. (2013). *Medium-Term Strategic Framework (MTSF) 2014-2019*. Pretoria, Department of Planning, Monitoring, and Evaluation.
- Republic of South Africa. (2012). *National Development Plan 2030: make it work*. Pretoria, The Presidency.
- Republic of South Africa. (2011a). *Performance information handbook*. Pretoria, Department of the National Treasury.
- Republic of South Africa. (2011b). *Western Cape Records Management Forum: terms of reference*. Cape Town. Western Cape Province Department of Cultural Affairs and Sport.

- Republic of South Africa (2010). *Guide on public participation in the public service*. Pretoria, Department of Public Service and Administration.
- Republic of South Africa. (2009). *Modernization program blueprint: face of the province: integrated service delivery*. Cape Town, Western Cape Province Department of the Premier.
- Republic of South Africa. (2003). *Senior management service handbook*. Pretoria, Department of Public Service and Administration.
- Republic of South Africa. (1996). *The constitution of the Republic of South Africa: as adapted on 8 May 1996 and amended on 11 October 1996*. Pretoria, Office of the Presidency.
- Rodrigues, A. (2016). Introducing an archival collecting model for the records created by South African Portuguese community organisations. *Archives and Manuscripts* 44(3), 141–154.
- Roth, W.D., & Mehta, J.D. (2002). The Rashomon effects: combining positivist and interpretivist approaches in the analysis of contested events. *Sociological Methods and Research* 31(2), 131-173.
- Rousseau, D. M. (2018). Making evidence-based organizational decisions in an uncertain world. *Organizational Dynamics*, 47(3), 1-12.
- Rousseau, D.M., Manning, J. & Denyer, D., (2008). Evidence in management and organizational science: assembling the field's full weight of scientific knowledge through syntheses. *The Academy of Management Annals*, 2(1), 475-515.
- Runardotter, M.C. (2007). *Information technology, archives and archivists: an interacting trinity for long-term digital preservation*. Licentiate Thesis, Lulea University of Technology, Sweden.
- Ryan, A.B. (2006). Post-positivist approaches to research. In: *Researching and writing your thesis: a guide to postgraduate students*. Maynooth, Maynooth University.
- Salamntu, L. T. (2016). *Understanding the achievement of benefits through use of Enterprise Content Management (ECM) systems in public sector organisations*. M.Com. Thesis, University of Cape Town, Cape Town.
- Salkind, N.J. (2018). *Exploring research*. Harlow, Pearson.
- Schauder, C., & Kennedy, J. (1996). Records Management in Australia: an overview. *Record Management Journal* 6(3), 161-172.
- Schellenberg, T.R. (1965). *The management of archives*. New York, Columbia University.
- Schellnack-Kelly, I. (2013). *The role of records management in governance-based evidence, service delivery and development in South African communities*. D.Litt. et Phil (Inf.) Thesis, University of South Africa, Pretoria.
- Schlager, E. (2007). A comparison of frameworks, theories, and models of policy processes. *Theories of the policy process*, 2, 293-319.
- Schutte, N., & Barkhuizen, N. (2015). Knowledge management and sharing in local government: a social identity theory perspective. *Electronic Journal of Knowledge Management*, 13(2), 130-141.
- Segone, M. (2009). Enhancing evidence-based policymaking through country-led monitoring and evaluation systems. In: M. Segone (ed.). *Country-led monitoring and evaluation systems: better evidence, better policies, better development results*. Geneva: United Nations Children's Fund, pp.17-31.

- Shepherd, E. & Yeo, G., (2003). *Managing records: a handbook of principles and practice*. London, Facet.
- Simon, H.A. (1979). Rational decision-making in business organisations. *American Economic Review* (September), 493-513.
- Singleton, R.A., & Straits, B.C. (2010) *Approaches to social research*. New York, Oxford University.
- Solesbury, W. (2001). *Evidence Based Policy: whence it came and where it's going*. London, University of London.
- South African History Online (2020). History of slavery and early colonisation in South Africa. [Online] Available from: <https://www.sahistory.org.za/article/history-slavery-and-early-colonisation-south-africa>
- South African History Online (2019). The history of apartheid in South Africa. [Online] Available from: <https://www.sahistory.org.za/article/history-apartheid-south-africa>
- South African Legislative Sector (2013). *Public Participation Framework for the South African Legislative Sector*. Cape Town, South African Legislative Sector.
- Sparks, C. (1992). The press, the market, and democracy. *Journal of Communication*, 42(1), 36-51.
- Spencer, T.D., Detrich, R., & Slocum, T.A. (2012). Evidence-based practice: a framework for making effective decisions. *Education and Treatment of Children*, 35(2), 127-151.
- Stair, R.; Reynolds, G. & Chesney, T. (2012). *Fundamentals of business information systems*. Hampshire, Cengage Learning.
- Stewart, R., Dayal, H., & Langer, L. (2017). Terminology and tensions within evidence-informed decision-making in South Africa over a 15-year period. *Research for All*, 1(2), 252-264.
- Stewart, R., Langer, L., Wildeman, R., Erasmus, Y., Maluwa, L.G., Jordaan, S., Lötter, D., Mitchell, J. & Motha, P. (2018). Building capacity for evidence-informed decision-making: an example from South Africa. *Evidence & Policy: a Journal of Research, Debate and Practice*, 14(2), 241-258.
- Stonebraker, I., & Howard, H.A. (2018). Evidence-based decision-making: awareness, process and practice in the management classroom. *Journal of Academic Librarianship*, 44, 113–117.
- Strategic Policy Making Team (1999) *Professional Policy Making for the Twenty First Century*. London, Cabinet Office.
- Strydom, W.F., Funke, N., Nienaber, S., Nortje, K., & Steyn, M. (2010). Evidence-based policymaking: a review. *South African Journal of Science*, 106(5/6), 1-8.
- Stuart, S. (2012). Evidence policymaking in the Caribbean. *United Nations ECLAC Policy Brief*, 1(Dec), 1-4.
- Sundqvist, A. (2015). Conceptualisations of the use of records. *Tidsskriftet Arkiv*, 6, 1-15.
- Sutcliffe, S., & Court, J. (2005). *Evidence-Based Policymaking: what is it? how does it work? what relevance for developing countries?* London: Overseas Development Institute.
- Svard, P. (2013). Enterprise Content Management and the Records Continuum Model as strategies for long-term preservation of digital information. *Records Management Journal* 23(3), 159-176.

- Tiravanhu, P., Olaleye, W. & Bester, A. (2017). Advancing Evidence-Based Practice for improved public sector performance: lessons from the implementation of the Management Performance Assessment Tool in South Africa. *Journal of Public Administration* 52 (4), 681-704.
- Tomaz, S.A., Okely, A.D., van Heerden, A., Vilakazi, K., Samuels, M.L. & Draper, C.E. (2020). The South African 24-hour movement guidelines for birth to 5 years: results from the stakeholder consultation. *Journal of Physical Activity and Health*, 17(1), 126-137.
- Twala, C. (2014). The causes and socio-political impact of the service delivery protests to the South African citizenry: a real public discourse. *Journal of Social Sciences*, 39(2), 159-167.
- Upward, F. (2000). Modelling the continuum as paradigm shift in recordkeeping and archiving processes, and beyond: a personal reflection. *Records Management Journal* 10(3), 115-139.
- Upward, F. (1996). Structuring the records continuum-part one: post custodial principles and properties. [Online]. Available at: <http://www.sims.monash.edu.au/research/rcrg/publications/recordscontinuum/fupp1.htm>
- Utah State Archives and Records Service. (2020). *Scheduling the lifecycle of your records*. [Online]. Available at: <https://archives.uta.gov/rim>
- Uzonwanne, F.C. (2016). Rational model of decision-making. In: A. Farazmand (ed.). *Global Encyclopedia of Public Administration, Public Policy, and Governance*. Amsterdam, Springer.
- Van Riemsdijk, T. (1885). *De griffe van hare hoog mogenden: bijdrage tot de kennis van het archief Van de Staten Generaal der Vereenigde Nederlanden*. The Hague, State Archives.
- Venkatesh, V., Brown, S.A., & Bala, H. (2013). Bridging the qualitative–quantitative divide: guidelines for conducting mixed methods research in information systems. *MIS Quarterly* 37(1), 21-54.
- Walker, A.J. (2015). *Procedural rationality as a means for evidence-based management in conflicted decision-making: a mixed-methods study*. PhD Thesis, Case Western, Cleveland Reserve University.
- Western Cape Government. (2020). *Western Cape Government: overview*. [Online]. Available at: https://www.westerncape.gov.za/your_gov/70
- Williams, C. (2007) Research methods. *Journal of Business & Economic Research* 5(3), 65-71.
- Williams, J. J. (2006). Community participation: Lessons from post-apartheid South Africa. *Policy studies*, 27(3), 197-217.
- Wills, A., Tshangela, M., Bohler-Muller, N., Datta, A., Funke, N., Godfrey, L., Matomela, B., Pienaar, G., Popiwa, N., Shaxson, L., Strydom W., & Ke, Y. (2016). *Evidence and policy in South Africa's Department of Environmental Affairs*. Pretoria, Department of Environmental Affairs.
- Wilmot, K.D. (2019). *Enacting knowledge in dissertations: an exploratory analysis of doctoral writing using Legitimation Code Theory*. Ph.D. Thesis, University of Sydney, New South Wales.
- Wright, T. (2013). Information culture in a government organisation: examining records management training and self-perceived competencies in compliance with a records management program. *Records Management Journal*, 23(1), 14–36.
- Yan, B. (2015). *How to write a good research proposal*. [Online]. Available at: www.uwc.ac.za.

- Yang, K. (2010) *Making sense of statistical methods in social research*. Los Angeles, Sage.
- Yeo, G. (2011). Rising to the level of a record? some thoughts on records and documents. *Records Management Journal* 21(1), 8-27.
- Yeo, G. (2007). Concepts of Record: evidence, information, and persistent representations. *The American Archivist* 70, 315-343.
- Young, S.P. (2011). Evidence of democracy? the relationship between evidence-based policy and democratic government. *Journal of Public Administration and Policy Research*, 3(1), 19-27.
- Zussman, D. (2003). *Evidence-based policy making: some observations of recent Canadian experience*. Ottawa, Public Policy Forum.



ANNEXURE A

A model to foster the use of records for Evidence-based Decision making (EBDM) by senior managers in Western Cape Governmental Bodies

Q1. Which type of organization do you work in? Tick ✓ one from the list below

Government department

Municipality

Public entity

Q2. What is your position in your organization? Tick ✓ one from the list below

DDG	Municipal Manager	
HOD	Chief Director	
Exec Director	CEO	
Senior Manager	Director	

Q3. Evidence-based decision-making (EBDM) was introduced in South Africa to improve service delivery by implementing programmes supported by evidence available from various sources of information. In your opinion has EBDM achieved this? Tick ✓ the applicable box.

YES

NO

Q4. Which source(s) of evidence are important in EBDM? Tick ✓ all applicable

Research reports	Performance information	
Media reports	Service delivery protests	
Opinions of experienced employees	All	

Q5. Which source/s of evidence from the list below have you consulted and used to make decisions? Tick ✓ all applicable

Research reports	Performance information	
Media reports	Service delivery protests	
Opinions of experienced employees	All	

Q6. Where did you find the sources of evidence? Tick ✓ all applicable

My organization's website	University websites	
Other organizations' websites	Library	
My organization's registry		

Q7. Sources of evidence include organizational records. Which records are available in your organization? Tick ✓ all applicable

Annual reports	Audio-visual material	
Minutes of meetings	Annual performance plans	
Internal and external correspondence		

Q8. When do you consult records to make decisions? Select one applicable answer

- Always
- Seldom
- Never
- Sometimes



Q9. Which records have you consulted in the past financial year to plan and make decisions? Tick ✓ all applicable:

Annual reports	Audio-visual material	
Minutes of meetings	Annual performance plans	
Internal and external correspondence		

Q10. Which service delivery programmes have been implemented in your organization by using evidence from records you selected in Question 8? List one in each box below:

Q11. Organizational records are important for making service delivery decisions?. Tick ✓ one applicable answer

- Strongly agree Agree Neither agree nor disagree
- Disagree Strongly disagree

THANK YOU FOR PARTICIPATING!



UNIVERSITY *of the*
WESTERN CAPE

Annexure B

Request for participation in a study



Nikiwe Momoti <nikiwe.momoti@gmail.com>

to

Dear Sir/Madam

The Municipal Manager has granted permission to conduct research among senior managers for a PhD study. The study investigates the use of records for evidence-based decision makers by senior managers in Western Cape governmental bodies. While your participation would greatly enhance this investigation, it is voluntary.

The electronic survey can be accessed from the following link:

<https://www.surveymonkey.com/r/PBQGF5W>

Best wishes for the season.

Nikiwe Momoti (Ms)
PhD candidate(Student no.3473853)
University of the Western Cape



UNIVERSITY *of the*
WESTERN CAPE

ANNEXURE C



OFFICE OF THE DIRECTOR: RESEARCH RESEARCH AND INNOVATION DIVISION

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10 April 2019

Ms NG Momoti
Library and Information Science
Faculty of Arts

Ethics Reference Number: HS19/1/10

Project Title: Use of records for evidence-based decision making by senior managers in Western Cape Governmental Bodies.

Approval Period: 28 March 2019 – 28 March 2020

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report in good time for annual renewal.

The Committee must be informed of any serious adverse event and/or termination of the study.

A handwritten signature in black ink that reads 'Josias'.

*Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape*

HSSREC REGISTRATION NUMBER - 130416-049

ANNEXURE D



REQUEST FOR PERMISSION TO CONDUCT RESEARCH

DATE: 8 July 2019

TO:

Director-General
Department of the Premier
Western Cape Province
P.O. Box 659
Cape Town
8001

Dear Sir/Madam

My name is Nikiwe Momoti, a PhD candidate in the Department of Library and Information Science, University of the Western Cape. The purpose of this correspondence is to request permission to conduct research in all Western Cape government departments, municipalities and public entities. The title of the research project is: **Use of records for evidence-based decision making by senior managers in Western Cape governmental bodies**. The research will lead to my Ph.D. dissertation. I hope you will grant me permission to conduct research and allow senior managers to participate.

The study investigates whether records are used by senior managers for evidence-based decision making in Western Cape governmental bodies. The motivating factor of the study is that South Africa has placed emphasis on evidence-based decision making (EBDM) for effectiveness and efficiency in making and justifying decisions for improved service delivery. Senior managers in all governmental bodies are particularly responsible to plan, budget and make decisions supported by evidence, available from a variety of information resources, such as organizational records. Records are created or received during the conduct of business and contain information and evidence of organizational activities. Many evidence and records management researchers however, have lamented the minimal use of records for decision making in the public sector. The study seeks to test this hypothesis in WC governmental bodies within the context of evidence-based decision making.

The key objectives of the study are to: determine: senior managers' knowledge of EBDM, senior managers' awareness of the role of records in EBDM, perceptions of senior managers on the use of records in EBDM and the extent to which senior managers' use records for EBDM. Its significance is that will highlight the important contribution of records in evidence-based decision-making which is considered to enhance service delivery.

The target sample is 170 participants who will be requested to fill in a web-based questionnaire with 12 close-ended questions. The questionnaire takes about 15-20 minutes to complete, therefore will not take much of senior manager's time. All information and responses will be treated confidentially and kept securely by the researcher. Please note that the participants may withdraw from the study should they change their mind. In this case, the data collected from the institution would be destroyed and omitted from my dissertation.

If you have questions about this research, you may contact Nikiwe Momoti (Researcher), Tel: 079 541 7212; Email: nikiwe.momoti@gmail.com; or you may contact my research supervisor, Dr. Lizette King, Department of Library and Information Science, University of the Western Cape, Private Bag X17 Bellville 7535; Tel: (021) 959 2535; Email: lking@uwc.ac.za.

Nikiwe Momoti
Nikiwe.momoti@gmail.com

8/7/2019



UNIVERSITY *of the*
WESTERN CAPE

ANNEXURE E



OFFICE OF THE DIRECTOR-GENERAL

Tel: +27 21 483 6032
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REF: 14/1/3/HOD

Ms Nikiwe Momoti (Researcher)
PhD Candidate
Department of Library and Information Science
University of the Western Cape

Email: nikiwe.momoti@gmail.com

Cell: 079 541 7212

Dear Ms Momoti

APPROVAL TO CONDUCT RESEARCH WITH SENIOR MANAGEMENT (SMS) IN THE WESTERN CAPE GOVERNMENT

Your letter dated 8 July 2019 has reference.

This letter serves to grant you, as a PhD candidate, permission to conduct research on: "Use of records for evidence-based decision making by senior managers in Western Cape governmental bodies," which will involve SMS members in the departments within the Western Cape Government.

It is government policy that information shared, be treated with confidentiality and only be used for the purpose of research as indicated and requested by you and that individuals will participate on a voluntary basis.

It would be appreciated if you share the outcome of your research with the Western Cape Government.

Yours sincerely

M. H. C. Maliba
Acting Director-General

Date: 13 July 2019

Cc: Heads of Department

Subject to approval by each HOD.

www.westerncape.gov.za

ANNEXURE F



Consent Form – Questionnaire

University of the Western Cape

Research Title: Use of records for evidence-based decision-making by senior managers in Western Cape governmental bodies

Researcher: Nikiwe Momoti

Please initial box

1. I confirm that I have read and understand the information sheet explaining the above research project and I have had the opportunity to ask questions about the project.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline. (If I wish to withdraw I may contact the lead research at anytime)
3. I understand my responses and personal data will be kept strictly confidential. I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the reports or publications that result for the research.
4. I agree for the data collected from me to be used in future research.
5. I agree for to take part in the above research project.

Name of Participant _____ Date _____ Signature _____
(or legal representative)

Name of person taking consent _____ Date _____ Signature _____
(if different from lead researcher)

Nikiwe Momoti 18/09/2019
Lead Researcher Date Signature

Copies: All participants will receive a copy of the signed and dated version of the consent form and information sheet for themselves. A copy of this will be filed and kept in a secure location for research purposes only.

Researcher:
Nikiwe Momoti
0795417212

Supervisor:

HOD: