

https://dspace.org/

Early warning characteristics of monitoring and evaluation systems on the "functionality" of municipal service delivery processes

Naing, Myo

2017

https://hdl.handle.net/10539/23813

Naing, Myo (2017) Early warning characteristics of monitoring and evaluation systems on the "functionality" of municipal service delivery processes, University of the Witwatersrand, Johannesburg, <https://hdl.handle.net/10539/23813>

Downloaded from a DSpace repository. https://dspace.org/

Early Warning Characteristics of Monitoring and Evaluation Systems on the "Functionality" of Municipal Service Delivery Processes

Myo Naing

Supervisor: Professor Anne Mc Lennan

A thesis submitted to the Faculty of Commerce, Law and Management at the University of the Witwatersrand, Johannesburg in fulfilment of the requirements for the degree of Doctor of Philosophy.

February 2017

Abstract

Since 1994, the new democratically elected government has embarked on a series of massive initiatives, policies and programmes to improve municipal service delivery performance. Municipalities are, however, still incapable of fulfilling their designated service delivery mandate. The preliminary study of this research discovered that the current municipal monitoring and evaluation (M&E) systems, although they are legislated to serve as an early warning system (EWS), do not have essential components of an EWS and, as a result, cannot alert key players and stakeholders of developing problematic trends in municipal service delivery processes.

The research examined the extent to which the current M&E system of the City of Johannesburg contains the components of an EWS. The purpose is to design and propose a model of M&E system that can serve as an EWS and enable municipalities to receive advance information about potential problems, and then to implement the necessary corrective interventions. Using a qualitative and a case-study methodology, data were collected through observation, interviews, focus-group discussions (FGDs) and documentary study. Root cause, thematic analysis and data categorisation were used to analyse data.

The findings indicate that early warning signals exist and are noticed by some officials and staff, but no mechanism or budget exists to enable them to use the knowledge (i.e., no EWS exists). An important original finding this study makes is that one of the root causes of municipal problems is the state of alienation municipal workers and managers across race and class experience, which results in silo mentality of workers, departments and sectors, and fragmentation throughout planning, functionalities, information and knowledge, as the effects of alienation on municipal performance have not been in the local government discourse.

Conceptually, it argues that the M&E concept and framework need to be re-designed to encompass and build-in the concept of EWS, and, in turn, proposes a model of proactive M&E (pM&E), i.e., an M&E system integrated with EWS components, and therefore serves as an EWS. Moreover, it also suggests that concept and approach of the Weak Signals Theory (WST) is applicable in an M&E framework, but would be hard to use in “municipal” M&E systems, for three reasons: capacity constraint, political, and the multi-sectorial nature of the municipal system. ■

KEY WORDS

Local government, Municipal service delivery processes, Municipal service delivery challenges, Monitoring and Evaluation (M&E), pM&E (proactive M&E), eM&E (M&E system integrated with EWS components and therefore serves as an EWS), Early Warning System (EWS), Weak Signal Theory, Alienation, Alienation in local government context

Declaration

I declare that the Thesis

Early Warning Characteristics of Monitoring and Evaluation System on the "Functionality" of Municipal Service Delivery Processes

hereby submitted to the University of the Witwatersrand for the degree of Doctor of Philosophy has not previously been submitted by me for a degree at this or any other university. This is my own work, and all material contained has been duly acknowledged.

…….....

Signed
Myo Naing
22 February 2017

Publications, conference, symposium and forum presentations, and awards arising from the study

Naing, M. (2012). Upgrading Zimbabwe's bureaucratic quality. In E. V. Masunungure & J. M. Shumba (Eds.), *Zimbabwe: Mired in Transition* (pp. 205-229). Harare: Weaver. It can be read at Google Books https://books.google.co.za/books?id=ptaIAwAAQBAJ&pg=PA205&source=gbs_toc_r&cad=3#v=onepage&q&f=false

Naing, M. (2014). *Early Warning System for Municipal Service Delivery Processes*. A presentation at the Connective Cities' dialogue event titled "Rethinking Public Service Delivery, Innovative Solutions for Managing and Financing Public Services", organised by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) on 14 October 2014. My research poster is posted at the Connect Cities' website http://www.connective-cities.net/en/connect/training-conferences/rethinking-public-service-delivery/

Naing, M. (2014). *Commitment and Capability: Pushing the Boundaries*. A case study on the issue of late payment by government departments, written (with the support of Professor Anne Mc Lennan, from the Wits School of Governance) for the Department of Planning, Monitoring and Evaluation (DPME), South Africa. It can be read at the DPME website at http://www.thepresidency-dpme.gov.za/keyfocusareas/mpatSite/Pages/Case-Stusies-2013.aspx#.

Naing, M. (2014). *Expeditiously Expediting*. A case study on the issue of late payment by government departments, written (with the support of Professor Anne Mc Lennan, from the Wits School of Governance) for the Department of Planning, Monitoring and Evaluation (DPME), South Africa. It can be read at the DPME website at http://www.thepresidency-dpme.gov.za/keyfocusareas/mpatSite/Pages/Case-Stusies-2013.aspx#.

Naing, M. (2013). *Understanding Early Warning Signs of Municipal Service Delivery Problems*. A conference paper presented at the International Conference on Governance and Socio-economic Development organised by the Global Action for Africa's Development (GLAFAD), on 15 November 2013.

Nine oral presentations and discussions (about the study) have been presented at eight PhD Forums at Wits School of Governance, and the Wits 7th Cross-Faculty Graduate Symposium Johannesburg, from 2012 to 2015.

The First Prize for a research poster (Graduate Support Division, University of the Witwatersrand), The Wits 4th Cross-Faculty Graduate Symposium (19 Oct - 22 Oct 2012).

The Second Prize for a research poster (Graduate Support Division, University of the Witwatersrand), The Wits 5th Cross-Faculty Graduate Symposium (1 Aug - 2 Aug 2013).

The Second Prize for a research poster (Graduate Support Division, University of the Witwatersrand), The Wits 6th Cross-Faculty Graduate Symposium (28 Oct - 29 Oct 2014).

Acknowledgements

I would like to express my sincerest appreciation, gratitude and respect to my supervisor Prof Anne C. Mc Lennan, who, throughout my PhD journey, kindly and gently guided me (for example, by gently setting a couple of dead-lines to submit my draft thesis, for which I am truly grateful, otherwise I would not have finished drafting the thesis on time: I could easily have taken another six months to finish this thesis). I will always remember her and be grateful for her friendship, humbleness and kindness.

I also wish to express my deepest thanks to my former supervisor, Prof Mohammed I Jahed, who excellently supervised me for my Masters Research and supervised again my PhD research until he had to leave our school. Without his faith in me, brotherly support, friendship and guidance and direction, the conceptualisation of this research would not be possible. It was he who pointed out the lack of Early Warning System in the municipal M&E systems.

Moreover, I, then, would like to express my sincerest thanks, gratitude and respect to the following academics, teachers, staff and fellow students: Dr Horacio Zandamela, Dr Gillian Godsell, Dr Michael Muller, Dr Johnny Matshabaphala, Prof Roland Hunter (*who unstintingly answered my interview questions and kindly explained to me about the local government system and structure, especially related to the financial sectors. He also allowed me access to his own early warning indicators of governance, accountability, human capital, etc. Thank you, sir, your explanations, discussions and all notes are very valuable and useful for my study*), Prof Pundy Pillay, Prof Anthoni Van Nieuwkerk, Prof Gavin Cawthra, Prof Susan Booysen, Prof Thomas Mogale, Dr Cecile Badenhorst, Prof Mark Orkin, Prof William Gumede, Dr Kambidima Wotela, Dr Ivor Sarakinsky, Salim Latib, Merle Werbeloff, Murray Cairns, Bridget Steffen, Dinesh Budhram; also my friends, brothers and sisters: Asha Sekomo, Raymond Nkrumah Mashilo Kgagudi (who not only introduced me to many officials and staff from municipalities, who were attending local government certificate courses, but also allowed me to attend these course and organised my presentations and focus-groups discussions during the courses), Koogan Pillay, Frank Meintjies (who took time and answered my interview questions and explained municipal M&E processes and challenges), Dumisani Nkomo (who introduced me to many officials and staff from various municipalities who attended his local

government certificate courses at the Wits Business School), Dr Angelita Kithatu, Richard Gudoi Gid'Agui, Peter Wandwasi, Matome Malebati, Said EL_Namrouti, Yolanda de Figueiredo Sabino, Irene Nelufule, Justin Matli, Abdalslam Ashmila Mouctar Diallo, Renald Morris, Felix Omal, Dr Emmanuel Edoun, Dr Marumbo Ngwira; Dr. Elizabeth Muthuma, Prof. Dr Paulin Mbecke, Simone Joey Smit, Rose Thandiwe Maditse and Phindile Mohanoe and Ma Ouma (our Research Hub's Madam House Speaker) (because of them, the school became my second home); friends and staff at the Computer Lab and the Management Library, especially Dino Gavrielides, Ashraf Lambat, Thuli Malazi, Popi Dlamini, Maila Kalushi and Hys Lebogang; teachers and staff from the Post Graduate Support Group, especially my good friend, Hildegard Chapman; all of them helped to make my life at Wits School of Governance (and the Graduate School of Public and Development Management) full of the most pleasant, happy, fond experiences and memories.

My special thanks and gratitude also go to members of the Free Burma Campaign (South Africa): Dr. Thein Win, Aunty Theingyi Aung, Grandma Daw Khin Shwe and Win Myint Aung, Comrade Graham Bailey (my Chief Editor General who edited my Masters Research Report and my PhD Thesis), David Kramer, Jose Ilidio Nascimento, (Prof) Patrick Bond, and (Dr) Dale McKinley (Comrade Patrick and Comrade Dale wrote the recommendations to the University for me, which were required in the application to the PhD programme), and my big Comrade and brother Trevor Ngwane (*who, as a former councillor, gave me an excellent, in-depth, interview, sharing his experiences both as a councillor and activist. Thank you very much, Comrade Sir, your interview was the best I had for this study*) for all of their valuable support, logistically, politically, academically and morally, throughout my studies in South Africa, without their initiatives, efforts, support and constant encouragement, I would not be in South Africa in the first place. They were the ones who initiated the programme of bringing Burmese exiled students to South Africa for their further studies.

I am deeply grateful and indebted to my surrogate parents, Judy and Fred Kern, who looked after me and treated me like their own child (especially for my project manager, Fred, who gently managed my thesis writing project); and my mentor and teacher, Sarel van Biljon, who provided me with accommodation, constant encouragement and trusted in me for over seven years, also Marie Weeks who corrected my English pronunciation, and edited the first four chapters of my thesis;

my life-long friends, Anne-Marie Schlosser, Heidi Tressel, Carstens family (Christian, Natasja, Mikal and Arielle); and my little friends—Luke Schmitt, Klaus Albert Schmitt, and Atlegang Mokgosinyane—whose love, affection and friendship—and their total disregard of our different skin colours and different nationalities—always recharged my will-power and creativity, and made my life in South Africa like being at home surrounded by family members.

I am further grateful and indebted to the Institute for Community and Institutional Development - Burma (ICID-Burma), Prospect Burma, the Open Society Institute (OSI), the Open Society Foundation (OSF), and Wits Scholarship—Post Graduate Merit Award—for their scholarship awards for many years.

And finally, last but definitely not least, my eternal and highest gratitude goes to my now deceased parents who left me, while I was in exile and far away from them, without knowing where exactly I am, what I have been doing, struggling and aiming to achieve, and have already achieved, and also to all my brothers and sisters, none of whom, I have seen, for almost 14 years now, but all of them had and still have strong faith in me and are sure that, and know that I will always be striving to achieve something that is good (not harming anyone), worthwhile, important and somehow noble (not only for myself but mostly for our country and its people), and thus given me the utmost freedom) to pursue and realise my dreams, no matter how impossible or crazy they may look in their eyes. I will make all of them proud of me in one way or another, intellectually, politically, spiritually.

Without their love friendship, support, assistance, encouragement and most importantly their belief and trust in me, I think I might not have survived the many years of my PhD odyssey. Without them, I suspect that there might be no such theory as “Myo’s Theorem”, a future Management (or Development or Governance Theory). They all are my extended family and they all will always be in my heart and I will definitely make them proud of me with my future academic achievement.

Dedication

To Buddhas—The Blessed Ones, The Worthy Ones, and The Fully Enlightened Ones—who all showed me what life means, and what my life means to be, the directions toward the state of Enlightenment, and what I have to aim and strive for in life.

To Socrates, who taught me how to, and made me stand up for what I believe is right even if it would mean giving up my life, and what a worthy life means. And to David Hume, who “awoke me from my dogmatic slumbers”, as he did to Immanuel Kant (Strathern, 1996: 57).

And to Leonardo da Vinci, who was only interested in and worked only on the development of his skills and the perfection of his craft, rather than to produce ordinary and conventional paintings or drawings—which he could easily and quickly produce —in order not only to escape from the poverty that he suffering during a difficult period of his life in the 1480s, but also to make a good living, like the others who lacked the life purpose that he had (Greene, 2012).

And Daw Aung San Suu Kyi, *The Lady* (and our Mother), who gives me (and us) a hope, an inspiration and a vision, (and also a conviction and a goal) that it is possible to make my country, Myanmar (Burma), developed, prosperous, peaceful and respectable, and from whose Nobel Peace Prize money I have been benefitting for many years, for my further study.

List of Abbreviations

AA	Affirmative Action
AIDS	Acquired Immune Deficiency Syndrome
AEO	African Economic Outlook
AG	Auditor General
AMACOM	American Management Association
ANC	African National Congress
APF	Anti-Privatisation Forum
BEE	Black Economic Empowerment
BS	Balanced Scorecard
CBO	Community-based Organisations
CCR	Core Competency Requirements
CDW	Community Development Workers
CDWP	Community Development Workers Programme
CFO	Chief Financial Officer
CLEAR	Centre for Learning on Evaluation and Results, Wits School of Governance, University of the Witwatersrand, Johannesburg
CODESA	Convention for a Democratic South Africa
CoGTA	Cooperative Governance and Traditional Affairs
CoJ	City of Johannesburg Metropolitan Municipality
COO	Chief Operating Officer
COSATU	Congress of South African Trade Unions
CP	City Power Johannesburg (SOC) Ltd
CPD	Continuing Professional Development
CSIR	Council for Scientific and Industrial Research
CSU	Central Strategy Unit
DANIDA	Danish International Development Agency
DBSA	Development Bank of Southern Africa
DFID	Department for International Development
DCoG	Department of Cooperative Government
DM	Disaster Management
DMA	District Management Areas
DMP	Demand-Management Programme
DPLG	Department of Provincial and Local Government
DPME	Department of Performance Monitoring and Evaluation (until 2013), and Department of Planning, Monitoring and Evaluation (since 2014)
DPSA	Department of Public Service and Administration
DSMEW	Decision Support Model of Early Warning
DWAF	Department of Water Affairs and Forestry
ECA	Economic Commission for Africa
ED	Executive Director
EISA	Electoral Institute for Sustainable Democracy in Africa
EISD	Environmental Management Department and the Infrastructure

	and Services Department
eM&E	EWS (Early Warning System) incorporated M&E
EWS	Early Warning System
FAA	Federal Aviation Administration, U.S. Department of Transportation
FGD	Focus Group Discussion
FPO	Functional Performance Objective
FY	Financial Year
GCRO	Gauteng City-Region Observatory
GDARD	Gauteng Department of Agriculture & Rural Development
GDIP	Green Drop Improvement Plan
GDS	Growth and Development Strategy
GFOA	Government Finance Officers Association, of USA and Canada
GGLN	Good Governance Learning Network
GJMC	Greater Johannesburg Metro Council
GJTMC	Greater Johannesburg Transitional Metropolitan Council
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HDG	Historically Disadvantaged Group
HDI	Historically Disadvantaged Individual
HIV	Human Immunodeficiency Virus
HR	Human Resources
HSRC	Human Sciences Research Council
HV	High Voltage, voltages above 33kV
Idasa	Institute for Democracy in Africa
IDP	Integrated Development Plan
iM&E	Implementation-focused M&E (Monitoring and Evaluation)
IMFO	Institute for Municipal Finance Officers
IRR	Institute of Race Relations
ISS	Infrastructure and Services Sector
JPAC	Johannesburg Performance Audit Committee
JW	Johannesburg Water SOC Ltd
KfW	Kreditanstalt für Wiederaufbau
KPA	Key Performance Area
KPI	Key Performance Indicator
kWh	Kilowatt Hour
LED	Local Economic Development
LGMSA	Local Government Municipal System Act (Act 23 of 2000)
LGTAS	Local Government Turnaround Strategy
M&E	Monitoring and Evaluation
MAT	Municipal Assessment Tool
MD	Managing Director
MDG	Millennium Development Goals
ME	Municipal Entity
MFMA	Municipal Finance Management Act
MISTRA	Mapungubwe Institute for Strategic Reflection
MLC	Metropolitan local council
MMC	Member of the Mayoral Committee
MOE	Municipal Owned Entity

MPAC	Municipal Performance Audit Committee
MSA	Municipal System Act (Act 23 of 2000)
MV	Medium Voltage, voltages between 1kV and 33kV
MW	Megawatt
MWh	Megawatt Hour
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Cooperation and Development
PEP	Performance Evaluation Panel
PM	Performance Management
pM&E	Proactive M&E (Monitoring and Evaluation)
PMG	Parliamentary Monitoring Group
PMS	Performance Management system
PSC	Public Service Commission
QoL	Quality of Life Survey
R&CRM	Revenue and Customer Relations Management department at CoJ
RCA	Root Cause Analysis
RCR	Round Collected Refuse
RM	Risk Management
rM&E	Result-based M&E (Monitoring and Evaluation)
RSA	Republic of South Africa
SADC	Southern African Development Community
SAIGA	Southern African Institute of Government Auditors
SALGA	South African Local Government Association
SAMWU	South African Municipal Workers' Union
SANS	South African National Standards
SAP	System Application and Production in Data Processing
SAPA	South African Press Association
SARB	South African Reserve Bank
SCM	Supply Chain Management
SDBIP	Service Delivery and Budget Implementation Plan
SHU	Shareholder Unit
SM	Strategic Management
SOC	State-Owned Company
SOE	State-Owned Enterprise
SPO	Strategic Performance Objective
Stats SA	Statistics South Africa
SWOT	Strengths, Weaknesses, Opportunities and Threats
TLC	Transitional Local Council
TOC	Theory of Change
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNDP-SA	United Nations Development Programme in South Africa
UNISA	University of South Africa
UNISDR	United Nations International Strategy for Disaster Reduction
VIP	Ventilated Improved Pit
WDSA	Water Dialogues South Africa
WIDER	World Institute for Development Economics Research

WPTPSC	White Paper on Transforming Public Service Delivery
WSG	Wits School of Governance
WSP–SA	Water and Sanitation Program–South Asia (World Bank)
WST	Weak Signals Theory

TABLE OF CONTENTS

Abstract i
Declaration iii
Publications, conference presentations, and awards arising from the study iv
Acknowledgements vi
Dedication ix
List of Abbreviations x
Table of Contents xiv
List of Tables xix
List of Figures xxi

Chapter 1 1
INTRODUCTION 1
1.1 General background of study 1
1.2 Problem statement 7
1.3 Purpose of the research 8
1.4 Research questions 9
1.5 Delimitations and limitations 9
1.6 Significance of the study 11
1.7 The outline of the thesis 12
1.8 Conclusion 13

Chapter 2 14
EXPLORING M&E, EWS AND WEAK SIGNALS THEORY 14
2.1 Introduction 14
2.2 Reactive and Proactive Problem Solving Approaches 15
2.3 Four Stages from M&E to EWS 16
2.3.1 The Basis and nature of M&E and EWS 18
2.3.2 Information: Life-blood of Management 20
2.3.3 Methodology: How to collect Information 22
2.3.4 Application of information 25
2.4 An EWS Model 27
2.4.1 Weak Signals Theory (WST) 29
2.4.2 Decision Support Model of Early Warning (DSMEW) 34
2.4.3 Four essential elements of an EWS 36

2.4.4 Four roots of service delivery problem 38
2.5 The relationship among the key concepts 40
2.5.1 Weak Signals 40
2.5.2 Early Warning System (EWS) 41
2.5.3 Effectiveness 43
2.5.4 Accountability 45
2.6 Conclusion 46

Chapter 3 47
LOCAL GOVERNMENT M&E SYSTEM AND DELIVERY CHALLENGES 47
3.1 Introduction 47
3.2 Functions and responsibilities of local government 48
3.3 Current municipal service delivery performance 52
3.4 Municipal performance management and M&E systems 58
3.4.1 Legislative and regulatory framework for PM and M&E systems 59
3.4.2 The PM and M&E systems of the City of Johannesburg 61
3.4.3 The weaknesses identified in PMS in local government 67
3.4.4 The weaknesses identified in PMS in CoJ 68
3.4.5 Elements of EWS lacking in the current PM and M&E Systems 70
3.5 Factors affecting municipal service delivery performance 72
3.5.1 Resource constraints 73
3.5.2 Community participation 80
3.5.3 Non-compliance with rules and regulations 86
3.6 Three factors, research questions and EWS 89
3.7 Conclusion 91

Chapter 4 92
METHODOLOGY 92
4.1 Introduction 92
4.2 Case study methodology 94
4.3 Unit of analysis 96
4.4 Data collection strategies 96
4.4.1 Semi-structured and in-depth interviews 97
4.4.2 Non-participant direct naturalistic observation 102
4.4.3 Customer service call 104
4.4.4 Documentary study 104
4.4.5 Focus-group discussions (FGD) 106
4.5 Data analysis strategies 107
4.5.1 Root cause analysis (RCA) 107
4.5.2 Thematic analysis and factor categorisation 108
4.6 Reliability and validity 109
4.7 Triangulated research strategy 110
4.8 Ethical considerations 111
4.9 Conclusion 114

Chapter 5 115
SERVICE DELIVERY CHALLENGES 115
5.1 Introduction 115
5.2 iGoli 2002 Plan and the formation of a single-tier metropolitan system 116
5.3 Municipal entities 118
5.3.1 Electricity: City Power 118
5.3.2 Water and sanitation: Johannesburg Water 119
5.3.3 Refuse removal: Pikitup 121
5.4 The system of local government 122
5.5 Business model of municipal entities 122
5.4.1 Performances of municipal entities 125
5.6 Two primary problems of municipality and municipal entities 130
5.6.1 Perception and expectation gaps 130
5.6.2 Personality of municipalities 132
5.7 Factors affecting the performances of MEs 133
5.8 Categorisation of factors 134
5.8.1 Supply-side factors 135
5.9 Selected issues highlighted by interview respondents 137
5.9.1 Public participation and IDP 137
5.9.2 Accountability: Governance and internal Control 143
5.9.3 Leadership and political will 145
5.9.4 Dimensions of skills shortage problem 146
5.10 From factors to early warning signals 153
5.11 Conclusion 154

Chapter 6 156
M&E and EARLY WARNING SYSTEM 156
6.1 Introduction 156
6.2 Municipal M&E system 157
6.2.1 EWS components in M&E system 160
6.2.2 Definition of an EWS: Narrow and broad 164
6.2.3 Two kinds of EWS: Gross and specific EWS 166
6.2.4 Existence of early warning signs in municipal problems 167
Example 1: Water outage: Factors and causes 168
Example 2: Billing problem: Factors and causes 171
Example 3: Skills shortage: Factors and causes 173
6.2.5 Early warning signals revealed by the study 175
6.3 Integration of an EWS into an M&E framework 176
6.3.1 EWS process 176
6.3.2 Developing risk data-base 178
6.3.3 Data-collection and reporting 181
6.3.4 Resources required for an EWS 182
6.3.5 Four operational components of an EWS 184
6.3.6 Sources of data and information 184
6.3.7 EWS framework (proposed by this study) 185
1. Purpose 185
2. Objectives 185

3. The scope of application 185
4. Definitions 186
5. Aim of an EWS 186
6. Responsibilities of key actors 186
7. Objectives of an EWS 188
6.4 Benefits of having an EWS for the municipality 188
6.5 Conclusion 190

Chapter 7 191
DISCUSSION AND THEORETICAL IMPLICATION 191
7.1 Introduction 191
7.2 Municipal Problems: More about public participation and customer services 191
7.2.1 Three root causes of municipal problems 194
7.2.2 Relationship of three root causes, data and theory 198
7.2.3 Four roots of service delivery problems in the context of the CoJ 200
7.2.4 A mild state of alienation 204
7.2.5 Definition and symptoms of alienation 205
7.2.6 Symptoms appeared in municipal sphere 206
7.2.7 Fragmentation, silo mentality and alienation 211
7.2.8 Effects of alienation on municipal service delivery 213
7.2.9 Causes of alienation 214
7.3 Integration of Weak Signals Theory into EWS framework 216
7.3.1 Early warning phenomenon in a municipal service delivery environment 219
7.3.2 Integration of two supplemented theories into the WTS 222
7.3.3 Contributions to the remedies on the WST's limitations 222
7.4 Extended M&E territory 225
7.4.1 The birth of proactive M&E (pM&E or eM&E) 225
7.4.2 Different types of M&E: iM&E, rM&E and eM&E 226
7.5 Conclusion 229

Chapter 8 230
ANSWERS AND CONCLUSION 230
8.1 Introduction 230
8.2 Answers to the research questions 230
8.2.1 Question 1: Weak Signals Theory 230
8.2.2 Question 2: Characteristics of an EWS in the current M&E systems 232
8.2.3 Question 3: How to modify the current M&E Systems 233
8.3 Contributions to knowledge 234
8.3.1 Contribution to the understanding of municipal problems: Alienation 235
8.3.2 Contribution to the application of Weak Signals Theory 235
8.3.3 Contribution to M&E domain and its functions 236
8.4 Suggestions for further researches (future studies) 237
8.4.1 Comprehensive, but narrowly focused studies 237
8.4.2 Comprehensive root cause analysis 238
8.4.3 Causes and effects of alienation 238
8.5 Conclusion and overall messages 239

Chapter 9 244
APPENDIXES AND REFERENCES 244
Appendix A: Letter from City of Johannesburg. Permission to conduct research. 244
Appendix B: Ethics clearance certificate 245
Appendix C: Interview guide 246
Appendix D: Numbers of persons interviewed, and dates of interviews 247
Appendix E: Note of preliminary interview 249
Appendix F: Data management 253
Appendix G: List of municipalities 256
Appendix H: Personal experience (difficult to get responses from the municipality) 257
Appendix I: National Treasury's check list 259
Appendix J: Factors, causes, problems and EWS from Interviews 262
Appendix K: Factors, causes, problems and EWS from literature review 275
Appendix L: Factors, causes, problems and EWS from City Power's documents 284
Appendix M: Factors, causes, problems and EWS from Joburg Water's documents 289
Appendix N: Factors, causes, problems and EWS from Pikitup's documents 293
Appendix O: Early warning signals 298
Appendix P: City Power's financial performance (2010-2013) 312
Appendix Q: Johannesburg Water's financial performance (2010-2013) 314
Appendix R: Pikitup's financial performance (2010-2013) 316
Appendix S: Auditor General 2015 Reports on Joburg Water and Pikitup 318
Appendix T: CoJ' Request for Quotation 321

REFERENCES 322

LIST OF TABLES

Table 2.1 The organisation of the chapter 15
Table 2.2 Organisation of Conceptual Framework Section 17
Table 3.1 Basic services targets and service level of JHB (2015) 54
Table 3.2 Material losses incurred and impairment of assets 58
Table 3.3 Relationship between four roots and selected three factors 73
Table 4.1 Numbers of interviewees and their positions or ranks 98
Table 4.2 Dates of interviews 98
Table 4.3 Documents perused and studied thoroughly 106
Table 4.4 Numbers of Interviewees and Codes Referred to Them 113
Table 5.1 Service coverage 125
Table 5.2 Performance indicators of City Power, 2010-2014 125
Table 5.3 Different versions of figures (statistics) in City Power reports 126
Table 5.4 Performance indicators of Johannesburg Water, 2010-2014 127
Table 5.5 Performance indicators of Pikitup, 2012-2014 128
Table 5.6 Eight-year history audit outcomes of CoJ, CP, JW and Pikitup 129
Table 5.7 Factors affecting the performances of MEs 134
Table 5.8 Exogenous, supply-side, and demand-side factors 135
Table 5.9 Supply-side factors 136
Table 6.1 Sample of indicators to monitor water outage 170
Table 6.2 Three Points in the example of water outage 170
Table 6.3 Sample of indicators to monitor the billing problem 173
Table 6.4 Sample of indicators to monitor the level of skills shortage 175
Table 6.5 Factors, causes and problems revealed by this study 179
Table 6.6 Early warning signs revealed by this study 180
Table 6.7 Risk levels, code number and colours 182
Table 6.8 An example of one-page summary of KPI 183
Table 6.9 Responsibilities of key actors 186
Table 7:1 Relationship of three root causes, data and theory 198
Table 7:2 Four roots of service delivery problems, and causes and factors 203
Table 7:3 Respondents' trust in other people 209
Table 7:4 Respondents' beliefs on trust between blacks and whites 209
Table 7:5 Respondents' beliefs that no-one cares about them 209
Table 8.1 Contributions 237
Table 8.2 Suggestions for future research 239
Table D1 Numbers and descriptions of interviewees, and their code names 247
Table D2 Dates of interviews and codes 248
Table J1 Summary of factors, causes, problems and EWS from Interviews 262
Table J2 Factors, causes, problems and EWS from Interviews 263
Table K1 Summary of factors, causes, problems and EWS from literature review 275

Table K2 Factors, causes, problems and EWS from literature review 276
Table L1 Summary of factors, causes, problems and EWS from CP documents 284
Table L2 Factors, causes, problems and EWS from CP documents 285
Table M1 Summary of factors, causes, problems and EWS from JW documents 289
Table M2 Factors, causes, problems and EWS from JW documents 290
Table N1 Summary of factors, causes, problems and EWS from Pikitup's documents 293
Table N2 Factors, causes, problems and EWS from Pikitup's documents 294
Table O1 Summary of EWSs revealed by the study 298
Table O2 EWSs revealed from interviews, document study and literature review 299

LIST OF FIGURES

Figure 1.1 Public sector reform to municipal service delivery 2
Figure 1.2 Outline of the thesis 13
Figure 2.1 A Four-step conceptual journey 16
Figure 2.2 Hazard, risk and problem 23
Figure 2.3 An EWS model 28
Figure 2.4 Relationships between theories, model and system 29
Figure 2.5 State of knowledge and time available 35
Figure 3.1 Outline of the chapter 3: LG M&E system and delivery challenges 48
Figure 4.1 Data collection and source of data 97
Figure 4.2 Informal chatting with Pikitup employees 100
Figure 4.3 Councillor Meeting 103
Figure 4.4 Supply-side factors and causes 109
Figure 5.1 Local government model 123
Figure 5.2 Supply chain in water delivery 124
Figure 5.3 Perception and expectation gaps 131
Figure 5.4 Factors triangle 135
Figure 5.5 Supply-side factors 136
Figure 5.6 Eight dimensions of skills shortages 146
Figure 6.1 Early warning system report 163
Figure 6.2 Water Outage: Factors and causes 169
Figure 6.3 Billing problem: Factors and causes 173
Figure 6.4 Skills shortage: Factors and causes 174
Figure 6.5 EWS processes 177
Figure 7:1 Four roots of service delivery problems 200
Figure 7.2 Alienation, silo-mentality, and fragmentation 212
Figure 7.3 Consequences of alienation 213
Figure 7.4 An early warning phenomenon 220
Figure 7.5 Warning signals strategic issue management decision 221
Figure 7.6 The sub-periods of time available 222
Figure 7.7 Three types of M&E and their stages and questions 227
Figure 7.8 Extended territory of M&E 228

“How shall we take a demoralised, devalued, inadequately skilled and underpaid public service and transform it into an efficient, proud and caring force for delivery and change?”

Mac Maharaj (2009: 9)

Chapter 1

INTRODUCTION

This thesis explores the service delivery processes, and the Monitoring and Evaluation (M&E) systems used in providing four basic services in the City of Johannesburg Metropolitan area. It gives background insight into why this topic needs to be studied, and highlights the boundaries of the study. This chapter presents the general background of the study, problem statement, and purpose of the research, research questions and the outline of the thesis. It also explains a responsibility and requirement (by legislation) of an M&E system to serve as an EWS (Early Warning System), and the introduction of Weak Signals Theory as the M&E theory—The Theory of Change (TOC)—does not provide any mechanism to detect and monitor warning signals.

1.1 General background of study

Public services translate political visions into implementable policies and programmes that transform the daily lives of people (Chimhowu, 2009: 111). Public service delivery is not only attached to the economic growth and the alleviation of poverty (Goldstein, 2008: 01), but also affects the social and political status of citizens (Shah, 2005: 40). In order to meet the objective of creating and sustaining a better life for its citizens, government requires a public service that performs effectively (Malefane, 2010: 1).

The great realisation of requiring structural reform of the public sector in South Africa was first understood and discussed in 1993. The concern was raised during the

Convention for a Democratic South Africa (CODESA). It was agreed that in order to have a more equitable society and improve the standard of living of the general population, the public sector had to be equipped, so that it could be developed to deliver effective services to the whole population. After coming into power in 1994 the new democratically elected government embarked on a series of massive initiatives and programmes to fundamentally restructure the public service to fulfil its role in the new dispensation (Rakate, 2006).

The overall aim of public sector reform is to upgrade the performance of the whole sector, which is comprised of national, provincial and local government. Improving service delivery performance of municipalities is one of the important objectives of the public sector reform. The area of this study—the service delivery performance and the M&E systems of municipalities—is located in this broader context of the public sector reform. Figure (1.1) describes the interconnection among public sector reform, its objective to improve public sector performance, and the improvement of municipal service delivery performance, which is an essential part of wider public sector. The performance of the local government and municipalities is an important area that must be studied, understood and improved because, as Tsatsire (2008) argues, the success of the national and provincial governments depends on the success and survival of local government.

Figure 1.1 Public sector reform to municipal service delivery



To effectively deal with *chronic* service delivery challenges and to comply with five Constitutional mandates—to provide democratic and accountable government for local communities, to ensure the provision of services to communities in a sustainable manner, to promote social and economic development, to promote a safe and healthy environment, and to encourage the involvement of communities and community organisations in the matters of local government (RSA, 1996, 1998a), new policies and programmes, which are backed up by a well-conceptualised and highly progressive Constitution, Acts, White Papers and Legislation, were implemented. Despite these policies, municipalities are, however, still incapable of fulfilling their designated service delivery mandate. Incapacity to manage and deliver services to

the public has been exposed as the most daunting challenge of the last two decades since the inception of democracy in 1994 (CoGTA, 2015, 2014; Presidency, 2011; Tshandu & Kariuki, 2010: 204). The new local government system has failed to live up to its expectations (Jolobe, 2014). As both the CoGTA (2015, 2014) and the Presidency (2011b) acknowledge that effective and efficient service delivery from most municipalities remains elusive and does not meet the legitimate expectations of the citizens.

The trust of citizens toward local government and municipal authorities has been declining steadily. Moreover, Powel (2009) argues that government's apparent faith in local government as the sphere that is closest to people and the delivery arm of the state is not shared by its citizens. Local government is the least trusted of all public institutions in the country since 2000 (CoGTA, 2015; Alexander & Kane-Berman, 2014; Powel, 2009; Idasa, 2010a, HSRC, 2009). It is worrying because there is a direct, strong relationship between public trust and paying taxes and service fees, and participation in cooperative and consultative exercises (Turok, 2015).

Inadequate services, combined with unemployment and continued poverty, have frequently ignited township protests and riots (known as "service delivery protests"), started in the townships of Harrismith in 2004, and now spread to all provinces of South Africa (CoGTA, 2015; Jolobe, 2014; Alexander & Kane-Berman, 2014; Allan & Heese, 2011; World Bank, 2011: ix).

The preliminary study of this research discovered that the current municipal Performance Management and M&E systems are required by various legislations to serve as an early warning system (EWS). The White Paper on Local Government, 1998 (RSA, 1998: Section 3.2) states that a performance management system "would provide 'early warning' where municipalities are experiencing difficulties, and enable other spheres of government to provide appropriate support before a crisis develops. It would also enable municipalities to compare their own performance with that of similar municipalities across the country, identify successful approaches or 'best practice', and learn from one another.

Similarly, the 2000 Local Government: Municipal Systems Act (MSA), 2000, Annexure A Part 1 Legislation (RSA, 2000: 2) states that as one of core components of the Monitoring and review of performance management system: "The system applied by a

municipality in compliance with subsection (10 (c) must be advised to in such a way that it may serve as an early warning indicator of under performance". Likewise, the Municipal Planning and Performance Management Regulation 2001 states that: The mechanisms, systems and processes for monitoring in terms of sub-regulation (I) must (a) provide for reporting to the municipal council at least twice a year; (b) be designed in a manner that enables the municipality to detect early indications of under-performance; and (c) provide for corrective measures where under-performance has been identified (RSA, 2001: 13).

It should be stated that the White Paper on Local Government and the Municipal Systems Act (MSA) require the municipal Performance Management and M&E to provide 'early warning' (in White Paper) and "early warning indicator" (in MSA). But in the Municipal Planning and Performance Management Regulation, the mechanisms, systems and processes for monitoring is not only required "to detect early indications" but also to "provide for corrective measures". These two tasks (i.e., detecting early indications and providing for corrective measures) of the municipal PM and M&E system can be understood as an early warning system. The requirement of an EWS in municipal PM and M&E system is clearly stated in the Chief Financial Officers Handbook for Municipalities published by the National Treasury (2012). The Handbook (NT, 2012: 87) states that "[t]he in-year monitoring and reporting system is intended to act as an "early warning system" for budget spending and to guide corrective action or control measures necessary to ensure that budget spending is effectively managed". Moreover, in his 2004 State of the Nation address the former President Mbeki emphasised the necessity of M&E to provide "an early warning system and a mechanism to respond speedily to problems, as they arise" (Mbeki, 2004).

However, the M&E systems of municipalities do not have components and characteristics of an EWS, and, as a consequence, cannot alert key players and stakeholders of developing problematic trends in municipal service delivery processes (Sejeng, 2013). As a result, municipal management, staff and stakeholders are unable to see an integrated and holistic picture of the key performance situation, to check against the performance and outcomes of each and every step of the service delivery processes. At the same time, the national and provincial governments cannot conduct their oversight and intervention functions in local government (AG, 2016; 2012a: 35;

Moore, 2011; The Presidency, 2011a: 10; The Presidency, 2011b; Jonas, 2011: 29-30).

At this point, it is necessary and important to state the differences between an EWS that is incorporated into M&E systems and an EWS that is applied in disaster, risk, strategic management, etc. Although the same name EWS is used in this concept, there are fundamental differences in the nature and functions of these two kinds of EWS. An EWS in an M&E system focuses on common known or expected problems and crises while an EWS in other fields focuses on unexpected problems and disasters. (This is discussed more in Chapter 2: Conceptual Framework).

This research hypothesises that there are many problems and failures in the municipal service delivery processes that are avoidable if early warning signals or indicators could be developed, detected and used to defuse or pre-empt these burgeoning problems and failures while they are still in the early stages of development. This hypothesis is grounded in two premises: firstly, the current level and quality of municipal service delivery performance could be improved and in turn become capable of fulfilling its constitutional obligations, and secondly, the existing M&E systems are not functioning or serving as an EWS.

The first premise holds that in order to be able to achieve better service delivery performance, it is essential to develop and detect early warning signals of forthcoming problems. Only then can preparation and planning be done to deal with them before they mature into fully fledged problems and challenges. The second premise is that the existing M&E systems of local government are by legislation obliged to serve as an EWS, but the essential components of an EWS are lacking in the systems. As a result, these systems cannot alert key players and stakeholders of developing problematic trends in municipal service delivery processes. They are neither effective nor helpful for oversight or identification of intervention and corrective actions from national and provincial governments to intervene and help local government (Engela & Ajam, 2010).

Local Government legislation such as the Municipal Systems Act, 2000 (RSA, 2000), the Municipal Planning and Performance Management Regulations, 2001 (RSA, 2001) and the Municipal Systems Amendment Bill, 2003 (RSA, 2003), Presidential speeches such as the address of then President Mbeki (2004), handbooks and

guidelines for M&E systems such as the White Paper on Local Government, 1998 (RSA, 1998; DPLG, 2001), Implementing the Municipal Finance Management Act, 2003 (National Treasury, 2004) and performance management and M&E frameworks and policies of municipalities stress the importance of an EWS in M&E systems (See Appendix G for the list of municipalities). They state that municipal M&E systems are required to serve as EWSs. However, none of them explain how to achieve those ends, nor describe "in detail" how an M&E system must be designed to be able to work as an EWS. They do not provide examples of M&E systems that have the required components and characteristics of an effective EWS.

The information and indicators provided by municipal reports are neither reliable nor helpful for national or provincial governments to detect early warning signs in the municipal service delivery processes. This leaves them unable to fulfil or carry out their constitutional obligations of oversight and intervention in local government whenever necessary (Carrim, 2009, 2010; Chabane, 2009, PMG, 2010). Having a M&E system that can serve as an EWS, would forewarn of potential problems and crises in the municipal service delivery process, and allow municipalities—as well as national or provincial governments when necessary—to take the required remedial actions and interventions before problems and crises become full-blown.

A theory related to an M&E system is 'Theory of Change' (TOC). It explains the causal relationships and linkages among inputs, outputs, outcomes and impacts, and assists which indicators and data to be monitored and evaluated in order to see whether the implementation of the programme or the project is in the right track. However, the TOC does not provide means to monitor, detect and utilise early warning signals of possible challenges and problems. The limitation of M&E change theory (Theory of Change) and the absence or lack of articulated theories underpinning the early warning sector of a M&E system led this research to apply the Weak Signals Theory (WST) developed by Ansoff (1975; 1979), which are generally used in military and intelligence sciences, disaster and strategic management, banking and private sector, but have never tried (or tested) to apply neither in M&E system nor in local government sector. The weak signals theory is built on a premise that any change developed is preceded by some forms of warnings, and monitoring, capturing and understanding those warnings provide a means of proactive management to prevent or pre-empt emerging problems and challenges (Ansoff 1975; 1979). One of the purposes (or the research question) of this study is to investigate (or answer) whether

the WST could be applied in municipal M&E systems in order to be able to function as an EWS, and whether or not the WST contributes to the effectiveness of a municipal M&E to receive advance information about potential problems or emerging challenges.

The point of departure this research suggests is not just recognising the implications of factors and problems that impede municipal service delivery processes, but explaining how the current M&E systems, lacking the components of an EWS, are failing to equip municipal management, its employees, as well as stakeholders, such as national or provincial governments, and the public, with accurate data about the service delivery processes. Consequently, they are unable to oversee, assist, guide and intervene timeously in local government. This research explains how an effective and efficient M&E system that has the characteristic of an EWS can serve as an early warning system. It can help and enable municipalities to address their service delivery problems before they mature into fully-fledged challenges. It can also enable the national and provincial spheres of government to effectively oversee, guide and intervene in municipal challenges and problems.

In the same vein, since this research explored to what extent the problems of providing basic services experienced by municipalities are influenced and affected by the existing M&E systems of local government, this research represents a necessary shift from focusing on financial accountability per se, which is currently the main objective of oversight of the national and provincial governments and municipal reporting systems, to ensure the integration of the components of an EWS into the M&E systems of municipalities.

1.2 Problem statement

The problem is that the existing M&E systems of local government do not have the characteristics of an EWS and, as a result, cannot provide early warning functions (Sejeng, 2013; Moore, 2011; Engela & Ajam, 2010; CoGTA, 2009; Gibb & Goldman, 2006). The lack of EWS components and the failure to serve as an EWS of the municipal M&E systems is one of the vital areas that local government and municipalities should explore, understand and address in order to improve their service delivery performance.

The conceptual question whether an M&E system is meant to provide early warning signals and serve as an EWS system has not been adequately answered. Moreover, And the theoretical question on the feasibility of applying the Weak Signals Theory in municipal M&E and EWS processes is also still have to be investigated.

1.3 Purpose of the research

The purpose of this study is, first, to investigate the current M&E systems of municipalities in order to understand to what extent they incorporate the essential components of an EWS; and second, to design and propose a model of M&E system that serves as an EWS. That will enable municipalities to receive advance information about potential problems and implement the necessary preventive interventions.

It will also assist local government, municipalities, municipal entities, municipal front-line staff, service providers and community members to track performance of their front-line service delivery processes, to gather information on the quality of service delivery, to monitor, detect and identify problem areas such as human resources (HR) such as skill and capacity level; the financial health, such as budgetary constraints, cash flow condition, and profits and losses; the conditions and needs of infrastructure; administrative and governance quality and situations, for example potential tension between political and administrative organs of the municipality as well as municipal entities, potential conflicts among municipalities, municipal entities; and levels and conditions of public participation in municipal processes, such as whether a municipality communicates effectively with its local community so that community members know to what they are entitled. Furthermore, the EWS and its reports can also build institutional memory and knowledge, systematically, and provide lessons of previous failures and problems, and how to adopt and improve plans and preparations in order to decrease the possibility of them happening again, and to detect any possible problems and failures, and, in turn, to be able to pre-empt them from maturing into real problems and failures.

The original contribution to knowledge of this study is fourfold. First, it makes new interpretations of municipal service delivery problems and some of the root causes, which have not been aware of, researched before or discussed substantially, i.e., alienation in society, workplace and community, silo mentality, and resultant fragmentation throughout planning, functionalities, information and knowledge. It is an important original finding of this study for a fact that the concept of Alienation and the

effects of alienation on municipal service delivery performance has never been in the local government and public sector discourses. Second, it provides a new M&E method (pM&E, or proactive M&E, i.e., application of an EWS system integrated to the municipal M&E system, required by legislation, but never been designed or applied before), to tackle or handle the municipal service delivery challenges and problems. Third, it extends the applicability of the Weak Signals Theory, which has previously never been used in public sector management. Fourth, it argues that the boundary, functions and objectives of conventional M&E systems need to be extended in order to accommodate the components and functions of the early warning concept.

1.4 Research questions

In order to examine, explore and find the solutions to the above mentioned research problems, the following central research question and supporting research questions were used to guide this research:

The central research question

1. Can the effectiveness of M&E systems be improved by integration of the weak signals theory, and why?

In order to further explore the central research question, the following guiding questions framed the research:

2. To what extent does the current M&E system of municipalities have the characteristics of an EWS?
3. Can the current M&E system of municipalities be modified and upgraded to integrate the components and characteristics of EWS in it, so that it can alert key players and stakeholders of developing problematic trends in the last stage of municipal service delivery processes, i.e., the implementation stage?

1.5 Delimitations and limitations

Leedy (1997: 59) points out that “the researcher can be easily beguiled by discovering interesting information that lies beyond the precincts of the problem being investigated.” In order to ensure that the researcher did not fall into this trap a framework was set to assist the limitations of the research needed. The focus of this research is, therefore, not on the issues and arguments of whether or not there are problems in municipalities, or whether the service delivery performance of municipalities is low or high. The main area of the study is to explore and understand

early warning signs or indicators of problems and factors affecting municipal service delivery processes.

The research was limited in three ways. First, it studied the CoJ and three of its municipal owned entities (MOEs), rather than municipalities and municipal entities around the country. Second, it focused on four basic services, i.e., water, electricity, sanitation and waste removal, rather than all municipal services delivered to communities. Third, it explored the problems experienced in the last component of the service delivery processes, i.e., the implementation stage of delivering services to community members, rather than all areas of municipal service delivery processes that involve planning, consultation, budgeting, building and maintaining service delivery infrastructures, and delivering services to community members. That was an advice or recommendation given by CoJ senior officials during the preliminary study (interview) conducted at the Office of the City of Johannesburg Metropolitan Municipality, at Thuso House, 66 Stiemens Street, Johannesburg, on 6 November 2013 (See the preliminary interview note at the Appendix 5).

For instance, for City Power, delivering services means providing or supplying electricity to residents, maintaining and repairing electricity meters, cable networks, replacing or repairing faulty street lights, and auditing meter readings. For Johannesburg Water, delivering services means providing or supplying water and sanitation services to residents; maintaining or fixing waste water culverts, water pipes, water valves and hydrants, and water mains; replacing and fixing water meters, boxes, covers and connections and also sewer covers; reading water meters; clearing blockages in water pipes; operating and maintaining the sewer network. For Pikitup, delivery services means collecting trash; maintaining vehicles; operating and running waste treatments; collecting, diverting and recycling refuse, and environmental development and education. However, it is pertinent to state that although this study focuses on the problems experienced in the delivery stage of services, factors and causes of those problems are originated in the early stages of the municipal service delivery processes, that include planning (Integrated Development Planning, IDP), budgeting, public consultations and participation, human resource management, and infrastructure maintenance and development.

1.6 Significance of the study

The significance and contribution of a research has three general areas: knowledge in the relevant areas, policy considerations, and practitioners (Punch, 2000: 272). The study extended the areas of applications of three theories—Ansoff's theory of weak signals, and four roots of service delivery problems of Devarajan and Reinikka (2004), and four elements of an EWS (UNISDR) (2005)—to municipal service delivery processes.

The theoretical contribution of this research is that it would be hard to apply the Weak Signals Theory to an early warning system for a municipal service delivery process because of low capacity of municipalities, heavy involvement of political influences in municipal processes, and the ten joints (fault-lines) that connect the different sectors and groups of municipalities, which make communication process difficult and long. However, the rationale of the theory can still be applied.

As an operational contribution, the outcome of this research is a proposed M&E system, with a section on EWS. Although it will not be a cure-all for municipal problems, it will help the respective municipalities to improve communication, co-ordination and co-operation both within individual sectors and between the various municipal entities and the City of Johannesburg. It will not only make the M&E system more streamlined but will improve collective planning as well as making collective problem-solving more effective. Furthermore, it will enable municipalities as well as national and provincial governments to get a better sense of the planning, implementing, communicating, overseeing and monitoring of the municipal service delivery process.

Municipalities in South Africa mostly have common elements such as water treatment plants, sewage, water reticulation, roads, bridges, traffic light systems electricity sub-stations, abattoirs, morgues, finance departments, billing systems, town planning, having common elements – just the scale changes. Thus, it is reasonable to argue that there is lots of knowledge, provided by this study, that could be transferrable into a basic common municipal early warning system, and could be installed in every municipality by tailoring it to suit the peculiarities of each municipality.

It is important to understand that merely having an M&E system that is integrated with an EWS will not solve or help municipalities to address or even prevent problems that

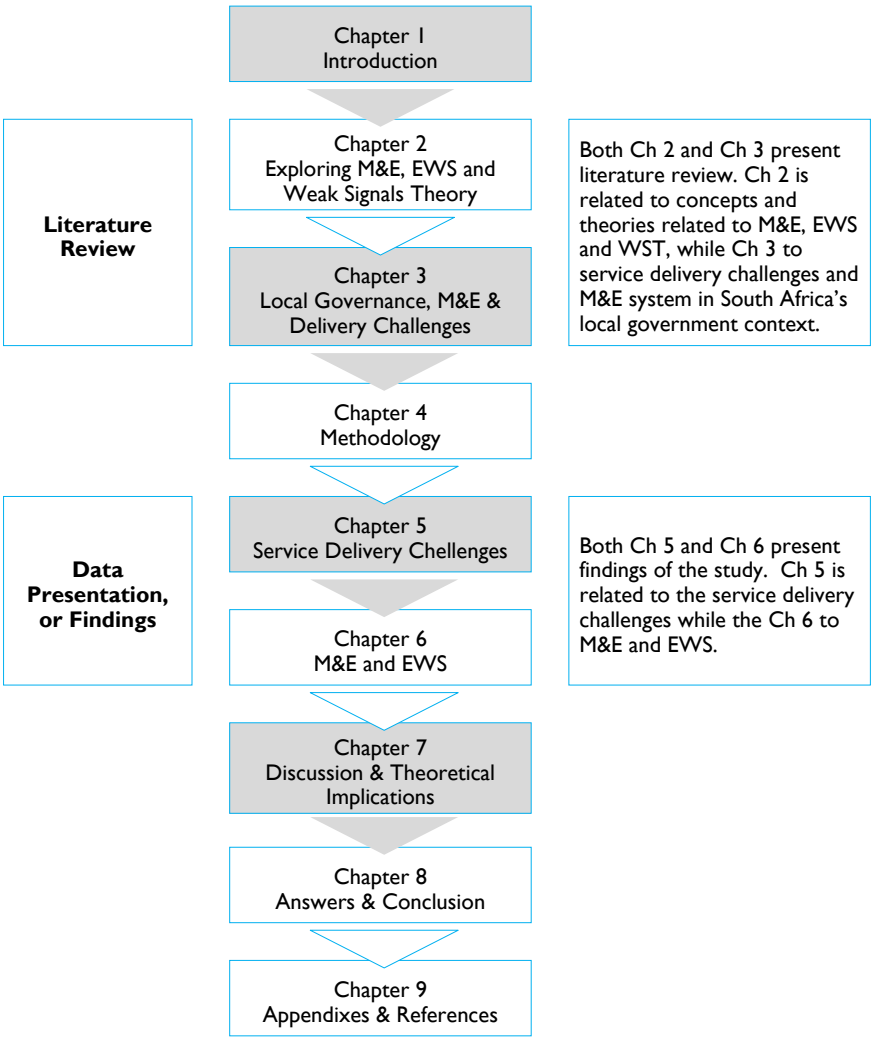
are correctly alerted. What is also required is a competent team that diligently monitors, and identifies the early warning signals, and then effectively communicates the findings to the responsible persons or team to deal with the upcoming problems. Finally, the notified departments must develop and implement the response capabilities needed to address the problems. As Hodgetts (1979: 101) argues, “no plan can be successfully implemented without a competent organisation. There must be some process by which the work and the people come together”. Similarly, no matter how systematic and efficient the EWS is in the M&E system, it will not be useful when the management or the leadership of the organisation is not interested and engaged in the system, or not committed to implement or apply the system.

Most importantly, integrating an EWS system into a public sector M&E system paves an innovative way of applying an EWS and ‘Weak Signals theory’, which are generally used in disaster management (DM) and strategic management (SM), in private sector management. Consequently, the study serves as a reference for future research on the characteristics of an EWS incorporated into the M&E systems of municipalities as an effective tool of the municipal service delivery processes.

1.7 The outline of the thesis

The thesis has nine chapters. Chapter (1) presents the introduction and background information of the study, problem statement, the purpose of the research, research question. It also states the delimitation and limitation, as well as the significance of the study. Chapter (2) provides the conceptual and theoretical frameworks of the study. Chapter (3) reflects a thorough review of the literature on the functions and responsibilities of local government, current municipal service delivery performance, municipal performance management and the M&E system and legislative and regulatory frameworks for them, and municipal service delivery challenges. Chapter (4) provides the methodology used in this study as well as the manner in which data was organised, categorised and analysed. Chapter (5) serves as a case study, that provides background information of three municipal entities and discusses factors affecting municipal performance. Chapter (6) provides the M&E system and the EWS framework. Chapter (7) presents and discusses the theoretical implications. Chapter (8) arrives at answers to the research questions posed in the chapter 1, followed by knowledge contributions and recommendations for future research. Chapter (9) includes appendixes and references (Figure 1.2).

Figure 1.2 Outline of the thesis



1.8 Conclusion

This chapter provides the general background of the study. It discusses the purpose and aim of the study followed by the rationale of the study, and two premises on which the research is based. It then states the problem and purpose statement, research questions, delimitations and limitations, and significance of the study. The next chapter gives the conceptual and theoretical framework of the study.

Chapter 2

EXPLORING M&E, EWS AND WEAK SIGNALS THEORY

The chapter serves as a literature review related to M&E, EWS and Weak Signals Theory. It explores the concepts and natures of M&E and EWS, introduces a reactive problem-solving approach and a proactive one, and discusses the differences between an M&E without an EWS and an M&E with an EWS. It also explains why M&E theories and the existing management tools are inadequate to provide mechanism to monitor and capture early warning signals. They serve as a conceptual framework section. The second part of this chapter presents the theoretical framework of the study, explaining about the theories that are related to M&E, EWS and root causes of municipal service delivery problems. It also states why these theories are used and the relationship among them. It introduces the Weak Signals Theory and discusses why its approach and method are useful to monitor, capture and use early warning signals.

2.1 Introduction

The research problem of this study is the inability of municipal monitoring and evaluation (M&E) systems to provide warning information about emerging problems and as a result, municipalities lose opportunities to tackle those emerging problems when they are still in the beginning stages of their development into fully-fledged, or mature (completed) problems.

This Chapter has four main sections. The first is a short section that describes the need for a new way of solving municipal problems—a proactive approach, and outlines how that approach could be formulated. The second is the conceptual framework, which sets the ground on which the concepts and theories used in this study are positioned, and describes the conceptual road-map from the current approach—reactive one—to the proposed new approach—proactive one. The conceptual framework section consists of four sub-sections, namely, first the basis of

M&E; second, M&E and EWS information; third, methodology to get the information; and fourth, the application of the information. The third section presents the theoretical framework. It introduces three theories that are used in this study, why they are necessary, and how they are related to one another. And the fourth section describes the core concepts and tools that are used in, or are related to the study (Table 2.1).

Table 2.1 The organisation of the chapter

2.1 **Introduction**	2.2 **Reactive to Proactive Approach**	2.3 **Four stages from M&E to EWS**	2.4 **Theoretical Framework**	2.5 **Definitions of key concepts**	2.6 **Conclusion**
Introduction about the chapter: • What this chapter is about • What is involved in the chapter • How many sections there are and what they are	A short section that outlines the conceptual road-map: • From a reactive problem-solving approach to a proactive one • And from M&E without an EWS, to a new M&E system (M&E with an EWS)	A conceptual journey from M&E without EWS, to M&E with EWS • Basis of M&E • M&E information • Methodology to collect information: tools, approaches and theory • Application of information	Three theories used in this study, why they are used, and how they are related to one another: • Weak Signals Theory • Four essential elements of an EWS • Four roots of service delivery problems	Definitions of core concepts and how they are related to one another	Summary of the main points of the chapter and conclusion

2.2 Reactive and Proactive Problem Solving Approaches

Problems and challenges always exist, although their frequency and the severity of their impact vary. The municipalities in South Africa are still facing several service delivery problems and challenges. Moreover, no matter how advanced and efficient a municipal system and its management are, some problems will always exist and will have negative effects on municipal system performance.

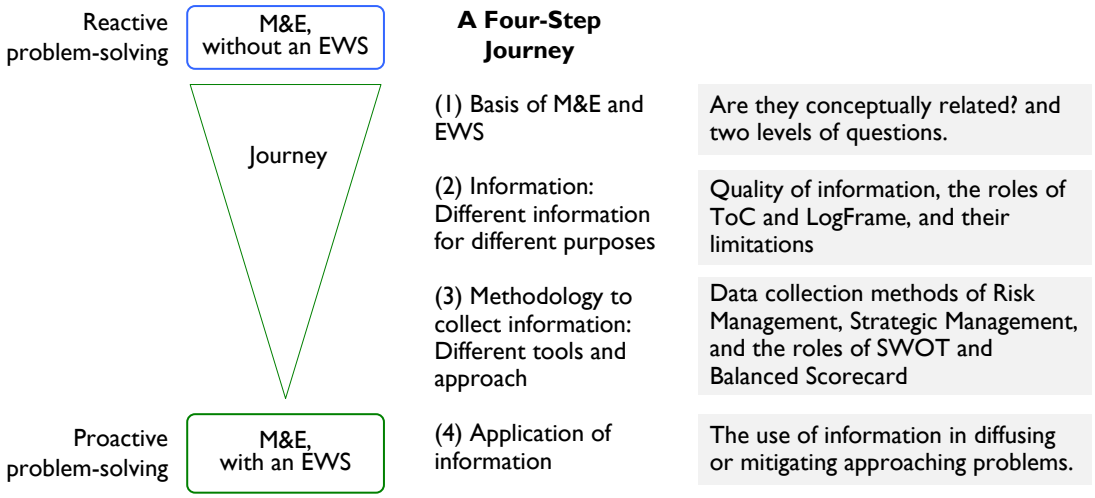
One of the premises on which the study is constructed is that handling or solving emerging (immature) problems is easier and less costly than solving fully-fledged or mature ones. For that reason, municipal M&E systems are required by legislation to

serve as an early warning system (EWS). Another premise of this study is that the current methods of solving municipal problems can be improved through the help of an effective M&E system, which can provide early warning information of municipal problems.

According to problem management processes, the problem solving approach can be divided into two kinds: the current approach ("reactive approach" because it solves problems only when they become problems), and the new one ("proactive approach" because it solves problems before they become problems, while they are still at an immature stage (Zitek, 2015; Summers, 2014; Wilson, 2012) (See Section 2.4 for more discussion on proactive and reactive problem solving approaches).

In the same way, M&E can also be divided into two kinds: M&E without an EWS, and M&E with an EWS. The following section presents the Conceptual Framework: A conceptual and operational journey (or process) from a reactive problem-solving approach to a proactive problem-solving one, and from M&E without an EWS to M&E with an EWS (Figure 2.1).

Figure 2.1 A Four-step conceptual journey



2.3 Four Stages from M&E to EWS

This section serves as the conceptual framework section, that illustrates the journey from the current, conventional way of problem-solving (or reactive approach) to a new way of problem-solving (or proactive approach). Moreover, it also, briefly, introduces concepts, theories and tools that are related to developing a proactive approach for problem-solving, and how they are related to one another and what their roles are

there. This section consists of four sub-sections, which discusses four stages in the journey travelled from “M&E without an EWS” to “M&E with an EWS”.

The first sub-section posits a conceptual question related to M&E and EWS; are they conceptually related?. The second sub-section explains the importance of information to any kind of management, and how different kinds of information are used for different types of management, such as Risk Management (RM), Disaster Management (DM), Strategic Management (SM), M&E and EWS. It also discusses how various M&E information are determined by the purpose, planning and design of the M&E. It also presents the roles of and effects of ToC and LogFrame in and on the quality and usefulness of M&E information. The third sub-section is about methodology: how information is monitored and collected. It describes a number of management tools such as SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis, and the Balanced Scorecard approach that provide a means to identify and create a list of weaknesses, threats and risks that are required to be addressed. After that, it also discusses the limitations of those tools and approaches to monitor and capture early warning signals or indicators of any problems and introduces a theory and a model that can be applied to overcome their limitations. They are Weak Signals Theory and Four Essential Elements of an EWS model. The last sub-section discusses the application of information for different purposes and ends, which include EWS purposes and objectives (Table 2.2).

Table 2.2 Organisation of Conceptual Framework Section

2.3.1 **The Basis of M&E and EWS**	2.3.2 **Information: Life-blood of Management**	2.3.3 **Methodology: Collecting information**	2.3.4 **Application**
• What M&E really means • What EWS really means • Are M&E and EWS conceptually related?	• Information: usefulness and quality • The role of Theory of Change (ToC) • The role of Logical Framework (LogFrame)	• Management tools, approaches and • Four essential elements of an EWS • Four roots of service delivery problems	• Application of information

2.3.1 The Basis and nature of M&E and EWS

The research problem of this study is that M&E information is not useable or useful to foresee emerging problems, so that those problems could not be prevented or mitigated while they are still in their early stage of development. In other words, the problem is that M&E does not serve as an early warning system (EWS).

The question of whether M&E serves as an EWS has to be answered on two levels: the conceptual level and the operational level. The first level is to answer whether M&E is conceptually related to an EWS. If M&E is not conceptually related to an EWS, two more questions are then entailed, because the legislation requires M&E to serve as an EWS. The first new question is to ask how M&E can be modified so that it will be able to serve as an EWS. In order to answer that question, the nature and characteristics of an EWS are required to be understood, and then compared with the nature and characteristics of a conventional M&E system. By any means or any answers attained for these questions, the task of this study is to close the conceptual gaps that exist between the nature and characteristics of M&E and those of an EWS. Closing that gap is called in this study “a conceptual journey from M&E without an EWS, to M&E with an EWS. If M&E is conceptually related to an EWS, the journey will be short. But if M&E is not conceptually related to an EWS, the journey will be long and conceptually tricky.

No matter what answers are obtained for the first level ‘conceptual’ question as well as its sub-questions if they are entailed, the second level question is required to be asked.

The second question is an operational one. Even if M&E is conceptually related to an EWS, M&E still can fail to serve as an EWS because of operational flaws, which might be the result of design failures, or implementation failures. That leaves another gap, an operational one. Closing that ‘operational’ gap can be termed “an operational journey from M&E without an EWS, to M&E with an EWS”. Answering all these questions is not required to be done in this chapter, as it is the Conceptual Framework Chapter. But they will be answered by this study, and discussed in later chapters (Chapter 6 and 7) of this thesis.

Is M&E conceptually related to an EWS?: In order to answer the question of whether M&E is conceptually related to an EWS or whether M&E has an EWS nature,

it is necessary to clarify what the concept of an early warning is and what an EWS means. The concept of an early warning system (EWS) is not unfamiliar to us. In our daily life, we have been using and benefitting from the use of an EWS, in one way or another, without realising that we are using an EWS. One obvious and common example is the use of information provided by the weather forecast to plan our day ahead.

The concept of an early warning system can be understood in this small analogy stated by Strive Masiyiwa (2016): “A farmer looks up to the sky and sees black clouds rolling in, and says, ‘There is a storm coming!’.” But an EWS does not stop at noticing or capturing these warning signs (rolling black clouds), and knowing or understanding what it means (an imminent storm), but it has to undertake the necessary actions to deal with the events that will be coming soon.

A key word in an EWS is ‘early’. The meaning of the term ‘early’ in an EWS, can be also understood in Masiyiwa’s (2016) explanation. “The sooner you see a storm through the signs, the more time you have to react, as long as you are prepared to do so. Don’t be a sitting duck waiting to be soaked!” said he.

The term ‘early’ is, however, a subjective word: its meaning depends on the whole length or duration of a process (project or programme), and it has different meaning in different situations and contexts where it is applied. In some cases, ‘early’ means within a few hours while in others, it can be within ‘a few weeks’ or even ‘a few months’. Therefore, there are some instances where M&E reports and information serve as an early warning system for projects whose life-span (or length or duration) is a couple of years or even a decade or two, for example mid-term (medium-term) and long-term projects and targets, such as the Millennium Development Goals (MDGs) adopted by 189 U.N. member countries and numerous international organisations in 2000, targeting to achieve eight goals within 15 years (in 2015) (Kusek & Rist, 2004: 3). There are many similar plans and projects that project long-term goals, for example, the CoJ’s the i-Goli 2002 Plan as well as its Growth and Development Strategy 2040 (GDS 2040), and municipal entities’ business plans that cover five years such as City Power’s Business Plan (2013 - 2016).

An answer to whether an M&E system serves as an EWS depends on the information provided by the M&E system (Reinhnrdt, 1984; Choo, 2009; World Bank, 2000). An

M&E system serves as an EWS if it provides early warning information or signals of emerging problems and allows modifications to be made to the plan or the programme (Görgens & Kusek, 2009; McCoy, Ngari, & Krumpe, 2005).

2.3.2 Information: Life-blood of Management

Information is the life-blood of management. Without information, any kind of management whether it is M&E, or Risk Management (RM), or Strategic Management (SM), or Disaster Management (DM) could not be conducted. Different kinds of information are necessary and are used in different kinds of management. Information needed and used in RM is risk information. Similarly, information required and utilised in SM is strategic information. In the same vein, information that is necessary and applied in DM is information related to disasters.

The importance of information is more relevant and crucial for M&E. The basic foundation and rationalé for the existence of M&E is information, that is credible and useful. The success of an M&E system depends on the quality of its information or data. Görgens and Kusek (2009: 289) call 'data' "[T]he fuel of an M&E system". Data and information collected by an M&E system, in turn, depends on the design of the M&E system, its purpose, and questions asked at the design stage (Görgens & Kusek, 2009).

M&E is used for a wide range of different purposes. One of the popular and common purposes of using M&E is "for checking progress with the implementation of plans", to see (know) "whether we are doing the right things, whether the work done (activities) actually resulted in the intended outputs, outcomes and impacts (or achieved their set objectives and goals), and are being effective, efficient and providing value for money, and how we can do things better" (DPME, 2014: 2; Loveridge: 2011; Gosling, 2010; Perrin, Owen, van den Knapp & Stame, 2008; Woodhill, 2005). It can also be used as learning from the experience in order to develop their own capacity and the quality of future projects, or works (Loveridge: 2011; Gosling, 2010); for decision-making (Gosling, 2010), supporting operational management, supporting strategic management, and capacity building (Woodhill, 2005).

Different purposes of an M&E system need different kinds of information: for example, to support operational management such as directing, coordinating and controlling of human, financial and physical resources, M&E provides the basic management

information; to support strategic management, M&E information will be related to set and adjust goals, objectives and strategies and to improve quality and performance (Woodhill, 2005). M&E that is useful for one purpose may not be usable for another purpose. When M&E is designed to use for accountability-control or transparency purposes, its information will not be relevant to use for EWS purpose.

Whether an M&E can provide early warning information, in turn, depends on its Theory of Change (ToC)—an explanation of the causal links and results chain—and Logical Framework (LogFrame)—that identifies not only performance indicators at each stage in the results chain, but also risk which might impede the attainment of the objectives. Although, like an EWS, the ToC and LogFrame systems have an anticipative nature in terms of expecting or anticipating, and establishing certain steps of accomplishments and their indicators along the entire process, programme or project, it does not always contain the considerations or means to anticipate or foresee probable problems or barriers that can be encountered along the process, programme or project.

In the same way that indicators of each step of the accomplishment of a programme can be formulated and established, it is also possible and required to anticipate the probable problems and barriers, as well as the indicators or signs of their development or evolution (or coming). World Bank (2002: 8) states that “[d]uring implementation the LogFrame serves as a useful tool to review progress and take corrective action”. If M&E applies comprehensive LogFrame and ToC, that identify not only performance indicators at each stage in the results chain, but also risks which might impede the attainment of the objectives, then their early warning signs will be able to serve as an EWS. There will however still be a gap between anticipating and capturing early warning signals. Weak Signals Theory (WST) seems to be able to fill that gap, i.e., to monitor, and interpret early warning signals (or weak signals). The WST is introduced and presented in the Theoretical Framework Section (Sub-Section 2.4.1).

Moreover, there are two main problems that ToC and LogFrame tend to have. The first problem is “theory failure” or “cause-effect identification problem”, i.e., the theory or idea or a set of assumptions on which a program or project is based do not work, because the cause-effect relationship identified by the theory is flawed or failed to identify all factors required for causes. While doing things well and implementing

correctly, a programme or project could still fail to produce the expected outcomes or the desired results, if underpinning ToC and LogFrame are flawed (Chen, 2005; Funnell & Rogers, 2011; Porter, 2012). Another problem is “implementation failure”, which is in fact not related to ToC or LogFrame. Implementation failure has happened when the programme or project has not been implemented actually or correctly, according to the underpinning ToC. which is correctly formulated (Loveridge: 2011; Patton, 2008; Rogers, 2008; Woodhill, 2005).

Moreover, ToC and LogFrame approaches do not adequately provide detailed steps about the early warning signals of the possible risks, and how to plan or prepare to monitor, capture and utilise the signals and knowledge to handle the risks. This is where the Weak Signals Theory comes into the system, as it provides the means and approaches to catch early warning signs (weak signals) of those theory and implementation failures. The Weak Signals Theory is introduced and discussed in the Theoretical Framework Section (Sub-section 2.4.1).

2.3.3 Methodology: How to collect Information

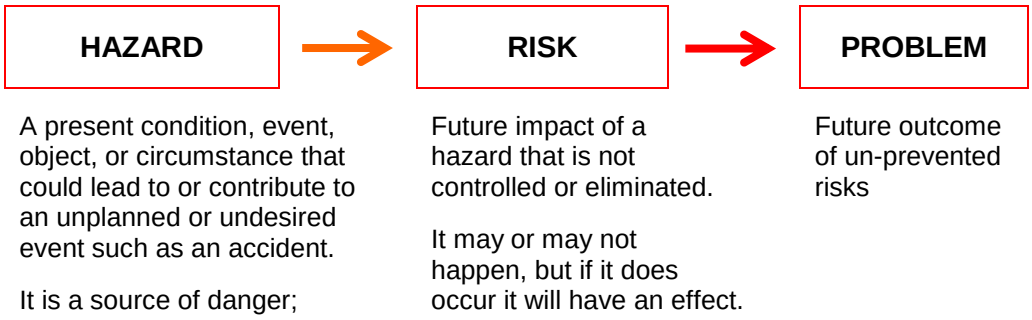
Information necessary for management is collected by various means, depending on the different kinds of management and their purposes. Different kinds of management use different data-collection methods, to collect different kinds of information. In this section, different kinds of management such as Risk Management, Strategic Management, and different tools such as SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis, and Balanced Scorecard are introduced, which is followed by discussions on how they are similar and different from one another, and whether they are related to EWS.

Risk Management: It is obvious to see and understand the close relationship between the nature and functions (operations and steps) of an EWS and RM (Niwa, 1989; Nikander & Eloranta, 2001). RM and an EWS have similar and common components to one another. These components are, (1) identification of risks, (2) evaluating (or analysing) them, (3) prioritising them, (4) planning to deal with them, (5) and taking mitigatory actions. The identification of risk in RM is the same as the formulation of possible problems that can occur throughout the processes (or programme or project) in an EWS. To see the similarities and relatedness between RM and an EWS, the relationship between hazard, risk and problem have to be understood. RM defines “a risk” as a future impact of a hazard that is not controlled or

mitigated, and if it has not been prevent will create a problem (Figure 2.2). This relationship between hazard, risk and problem, stressed by RM, is necessary to understand problems, their causes and factors, and solutions, which are useful and critical to two essential elements of an EWS, i.e., creating a risk-database and developing response capabilities.

Although similar and related to each other, RM is not an EWS because it does not have the nature of the concept 'warning'. RM does not have a stage where it monitors the early warning signs of developing risks. It does not look for early warning signals, as it only takes the necessary mitigatory actions once risks have been identified, analysed, and prioritised, without using monitoring, capturing, using early warning signs of those risks. Steps that are taken by an EWS but not by RM include (1) identification of early warning signals of risks (emerging problems), (2) monitoring them in order to capture them so that their coming (emerging or approaching) is apparent, and (3) based on these warning signals and information, taking necessary actions, which include communicating, helping decision-making, resource mobilisation, and fixing them or correcting their causes.

Figure 2.2 Hazard, risk and problem



Source: FAA, 2009

An interesting question that should be pondered and answered is "why the legislation attaches an EWS to M&E rather than to RM". By nature, an EWS is more closely related to Risk management. However, the reasoning of the legislation for associating an EWS with M&E, and demanding (or requiring) that M&E serve as an an EWS could be understood as an operational consideration: an EWS requires, among other things, constant monitoring, which is one of the primary operations of M&E. Monitoring does not have a prominent role in RM.

Strategic Management (SM): It uses a method called environmental scanning (both external and internal). But unlike M&E, its purpose is to help achieve goals and objectives, and to formulate strategies and develop policies and plans to achieve those goals and objectives (David, 2005). Although their purposes are different, there are some similarities between SM and M&E. One of them is the questions asked by SM. Questions—such as whether or not the initiative is really working towards the correct objectives; Why failures are occurring, because of the wrong assumptions (incorrect theory of action) or due to problems with implementation; How problems can be overcome and successes built on—are asked both by SM and M&E (Woodhill, 2005).

Like RM, but unlike an EWS, SM does not use early warning information. In SM (like RM), there is no concept of early warning, and no components or steps of identification of early warning signals of strategic barriers (risks, in case of RM) and monitoring, capturing, analysing, communicating (dissemination), and utilisation of these warning information (signals). Like RM, SM starts dealing with strategic barriers immediately once those barriers are identified, analysed and prioritised.

Moreover, there are a couple of management tools that are used, albeit not for early warning purposes, to identify and manage future problems or risks, and their causes and solutions. Two of them are closely relevant to an EWS. They are SWOT analysis and Balance Scorecard.

SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis: It is a widely used management planning tool to evaluate factors related to the achievement of a project or programme by identifying the internal strengths and weaknesses (i.e., within its control) and the external threats and opportunities (i.e., outside its control) (Görgens & Kusek, 2009: 133). It also helps to determine obstacles and barriers that can exist in the programme or project (which are related to limitations or weaknesses, and threats), and devise solutions to overcome them, (which are related to strengths). Normally, SWOT analysis is not used in planning for M&E or an EWS. But by integrating it into both M&E and an EWS, at the planning stages, both M&E and the EWS could become more effective and powerful.

Balanced Scorecard: This is a management tool that can help to achieve strategic objectives. It is a single concise report, with a succinct summary of the most relevant information, which managers can use to keep track of their activities and monitor the outcomes and consequences of these actions (Shulver & Antarkar, 2001). Kaplan and Norton (1992) proposed to include four sections in a balanced scorecard: financial, customer, internal business processes, and learning and growth. A small number of indicators or measures are identified under each of these sectors, and they are required to be modified and added to over time. The basic idea is to provide a set of critical indicators that show the health of the organisations strategic performance. Since its introduction, it has been modified and improved, to overcome various limitations and deficiencies in its structure, and make it more relevant and functional to strategic management, to achieve strategic objectives.

Both SWOT analysis and Balanced Scorecard are quite closely related to M&E and EWS. Information and data generated and organised by SWOT analysis and Balanced Scorecard are useful for the creation and revision of risk or a problem data-base, creation of a watch-list of prioritised risks or problems to keep one's eyes on, and the building and development of response capabilities. Their approaches and methods should be integrated into the methodologies of M&E and EWS.

The role of Weak Signals Theory (WST): These tools and approaches (SWOT, SM, RM, Balanced scorecard) do not adequately explain or propose a means to capture early warning signs of emerging or approaching problems or risks that are either foreseen (therefore anticipated or prepared for) or un-foreseen. The Weak Signals Theory, on the other hand, provides and proposes a means (or mechanisms) to monitor, capture and interpret early warning signs (weak signals) of changes, or problems (or surprises, or deviations from plans) whether or not they are anticipated and prepared for or unforeseen and unprepared. The Weak Signal Theory is introduced and discussed in the Theoretical Framework Section (Sub-Section 2.4.1).

2.3.4 Application of information

An EWS is not merely to provide early warning information, but is also to help in applying the information to diffuse or mitigate developing or approaching problems to which warning indicators are indicating. Only having warning information, no matter how early they have been received, will not prevent problems automatically. Actions have to be taken, based on the warning information, to prevent or mitigate those

approaching problems, as much as possible. Kaivo-oja (2012) argues that it is not enough to detect early warning information (or weak signals) leading to potential problems; it is also necessary to act upon them.

One of the problems with M&E is that not all information generated by M&E are not used. For example, in South Africa, it has shown that appropriate information are generated but they have not been used effectively for performance management purposes (DPLG, 2006: 25).

Application of information received is hampered by at least two reasons: lack of will, and lack of capacity. The first barrier is the lack of will or interest from leadership, or decision-makers, who unfortunately hold, for some reasons (perhaps an effect of alienation), 'I could not bother' attitude, or 'everything is just fine' perspective. It is one of the most difficult challenges EWS and M&E officers have to overcome, i.e., to convince decision-makers or people who hold power and control resources. The second barrier is lack of capacity. Even when a decision is made to deal with or mitigate the approaching problems, after reviewing and accepting the importance of the early warning signals obtained, and the need to act on them, the response capability might not be adequate.

An EWS that provides early warning information to responsible persons or a group or a team has done only half of its job. The other half of its job is to have a plan or programme in place for an efficient and effective method of communication and dissemination of the warning information (as warning information become no-early if the communication and decision-making processes take too long or get delayed), and also for building and developing a response capability (although it is not directly under their responsibility and control, an EWS team needs to have a clear plan and programme to collaborate with every related team or group about response-capability development).

The journey from M&E without an EWS to M&E with an EWS started with the discussion of the conceptual relationship between M&E and EWS, and ended with the application of information gathered by M&E, which is EWS information and is usable to diffuse or mitigate emerging problems. Theories and EWS methods and tools introduced and discussed in this conceptual framework section are discussed more in the following an EWS model.

2.4 AN EWS MODEL

In order to understand the functionalities and performance of municipal service delivery, and the roles played by M&E systems that are required, by legislation, to serve as Early Warning Systems (EWSs), this study applies three main theories: The theory of weak signals, four roots of service delivery problems and four essential components of an EWS. The Weak Signals Theory argues that it is possible to detect or foresee or predict problems or changes or surprises by means of an EWS which can indicate that these problems, changes or surprises transmit or hint as to their coming, well before their actual arriving. To supplement the Weak Signals theory, two complementary theories are applied in this research. The first complementary theory is that the four roots of service delivery are related to the root causes of problems in the municipal service delivery process. The second complementary theory is four essential components of an EWS, used in order to design an EWS.

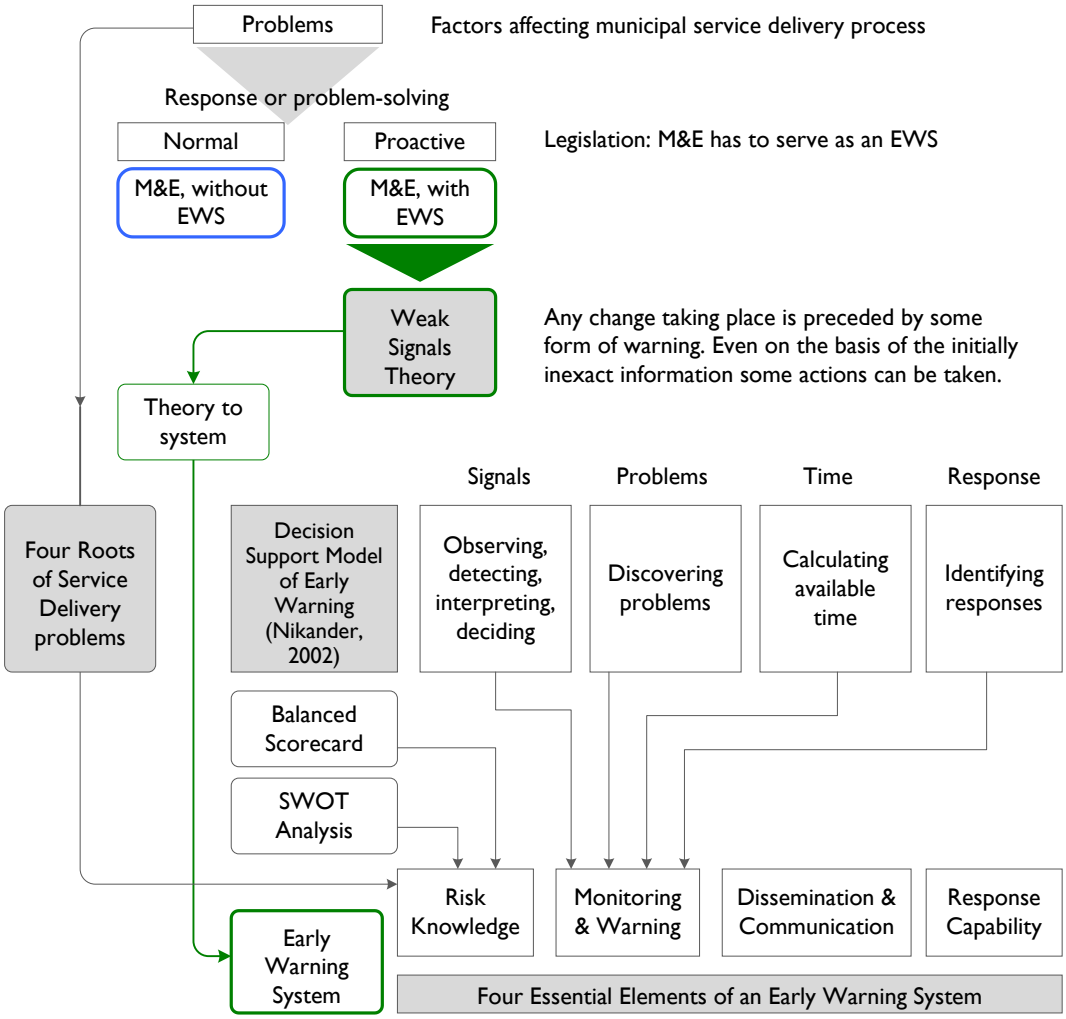
The Figure (2.3) represents an EWS model. This research was primarily situated in a monitoring and evaluation (M&E) framework. However, the cornerstone of the research problems and questions posed in this study is provided by the Weak Signals Theory (WST) by Igor Ansoff, and further supplemented by two operational theories that are related to municipal service delivery problems and challenges, and designing and building an early warning system.

The municipalities in South Africa are still facing several delivery challenges, such as inability to meet the legitimate expectations of the citizens" (Jolobe, 2014; CoGTA, 2015, 2014; The Presidency, 2011b: 7; Tshandu & Kariuki, 2010: 204), the declining trust of citizens toward local government and municipal authorities has been declining steadily (CoGTA, 2015; Alexander & Kane-Berman, 2014; Powel, 2009; Idasa, 2010a, HSRC, 2009), and widespread service delivery protests around the country (CoGTA, 2015; Jolobe, 2014; Alexander & Kane-Berman, 2014; Allan & Heese, 2011; World Bank, 2011: ix).

According to problem management processes, there are two ways of addressing or responding to these challenges: reactive problem solving (or the normal ways of response) and the proactive ways of response. Reactive problem approach addresses or solves problems when they manifest themselves as problems. Proactive response means dealing with nascent problems before they develop into full matured once, by

identifying, addressing and solving emerging problems while they are in early stages of development (Summers, 2014). Proactive Problem Management does not wait for an incident (or series of incidents) to happen in order to react (Zitek, 2015; Wilson, 2012). In order to apply proactive problem solving methods, information about emerging problems or challenges are necessary (i.e., early warning signals).

Figure 2.3 An EWS model

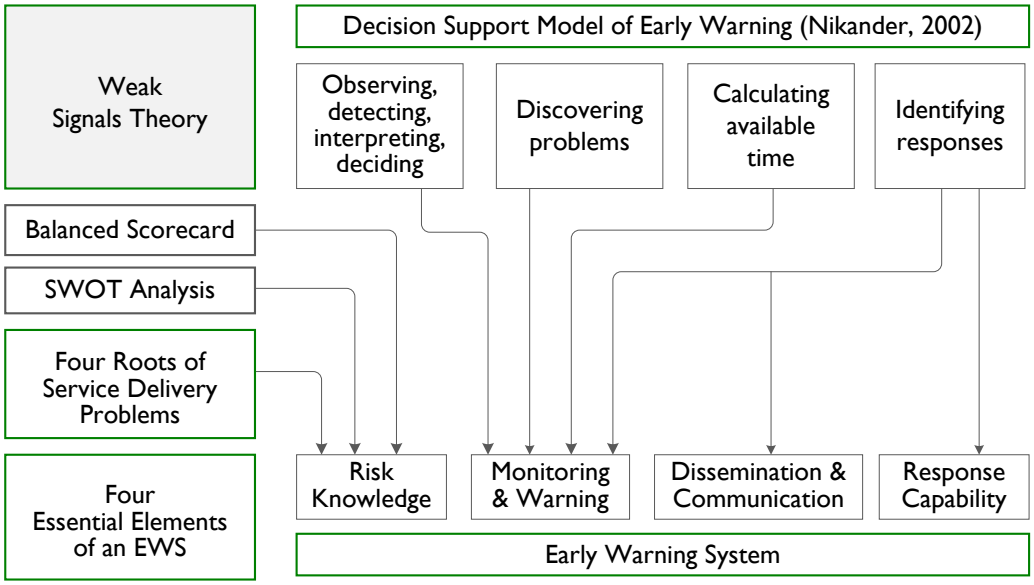


The M&E systems of municipalities are required by legislation to serve as an EWS, which is a proactive way of responding to the delivery challenges. However, none of the current municipal M&E systems are able to serve as an EWS. Since the current monitoring system cannot recognise the early warning signs of municipal service delivery challenges and problems, this study introduces the WST that provides mechanisms to monitor and recognise those early warning signs. In order to apply the

WST theory in an EWS system, the four essential elements of an EWS is also used in the study.

Again, in order to make a transition from the theory (WSI) to a system (EWS), the Decision Support Model of Early Warning (DSMEW) of Nikander (2002) was adopted. The relationships between the WST and the EWS, as well as between the DSMEW and the four essential elements of an EWS, and also between municipal service delivery problems and four roots of service delivery problems are described in Figure 2.4.

Figure 2.4 Relationships between theories, model and system



2.4.1 Weak Signals Theory (WST)

The central aspect of this research is related to the concept and theory of Weak Signals, which were first conceptualised and discussed by Igor Ansoff first in his seminal journal article published in 1975, and then in his book "Strategic Management" (1979). Ansoff (1979) argues that any change taking place is preceded by some form of "warning", which the analyst has the role of capturing and making good use of. The theory was started and proposed to be used for strategic management. At that time, in the 1970s, the world, in terms of politics and Business situations, started changing very quickly—Ansoff (1975; 1979) called it "turbulent world"—and organisations and companies were not well-prepared for those fast changing situations. So it was necessary to find the ways to be able to see the future as early as possible so that there would be some time to prepare for the coming

problems, challenges, crises or changes. The main point of Ansoff's theory is that, while signals are weak, uncertain and difficult to analyse, it is still possible to take some actions to prevent or mitigate problems or crises that the signals indicated about their coming.

Criticisms and Supports for the Weak Signals Theory

Ansoff's weak signals concept and theory are, at its inception, always a central point of debate, because he has not provided any evidence to support and prove his theory (Kothari, 2010). There have been a number of criticisms as well as supports from researchers and scholars in different fields. The main reasons behind the argument are two-fold: first, whether weak signals really exist or they do contain information about future events; and, second, even if they present, whether it is possible or practical to detect them. Then, the critics are also protesting the application of concepts designed for detection and analysis of weak signals. In the same vein, it is also argued whether weak signals really are significant or important for organisations, in other words, the benefit of observing, detecting and interpreting weak signals out-power the cost of doing so.

Makridakis and Heáu (1987) hold that weak signals theory is still an academic idea. Webb (1987) initially believed that information about future events are impossible to obtain and criticised Ansoff's theory for lacking evidences to substantiate it and argues that more studies still have to be done to confirm that concept. The existence of weak signals is question by both Webb (1987) and Ashley (1989a). For Ashley (1989a), such early warning phenomenon does not exist at all. It is just a hindsight bias that makes an illusion that there are warning information about future events. Mintzberg (1994a) asks if weak signals are important in strategic planning and management. Betts (1982) and Morris (1997), note the effect of the hindsight bias, but also ascertain the existence of warning phenomenon.

On the other hand, there are also many studies and researches that support Ansoff's view and idea, adopt and apply weak signals theory and concept in wide range of disciplines and organisational contexts, and then, provide methods and processes to detect and analyse weak signals. The importance of weak signals theory is demonstrated by many studies. Leidecker and Bruno (1987) demonstrate the importance of observation weak signals by proving that there are success factors in what companies do or conduct. Morris (1997) shows the existence of early warnings

for corporate failure. Similarly, Betts (1982) demonstrates the existence of warning phenomenon in advance of wars and conflicts, for example German attack to Russia in June 1941, the Japanese attack on Pearl Harbor, the Korean War, and three Arab-Israeli conflicts. He states, now famously, that “pure bolts from the blue do not happen. Sudden attacks occur after prolonged political conflict” (Betts, 1982: 95). In the same vein, the work of Pinto and Slevin (1992) on project implementation is regarded as a research that supports the existence of weak signals. Out of his doubt about the existence of weak signals, Webb (1987) studied, through his doctoral research that investigates and forecasts future development in the ophthalmic laser environment, and confirmed the existence of weak signals. Nikander (2002) demonstrates the presence of weak signals, he terms it as early warnings in typical project environment context. In the same way, Weschke (1994) identifies group of early warning signs seen in enterprises that are economically risky.

After proving the existence and also the importance of weak signals, many researchers have been trying to extend the application of weak signals into different fields and organisational settings. Weak signal theory and concept is applied in a variety of ways not only in the context of strategic management but also in other disciplines like communications research, project management, journalism, international security, business economy, international politics and even military science (Nikander, 2002; Uskali, 2005; Kothari, 2010).

Hiltunen (2001a; 2006) holds that weak signals are different from wild cards, because weak signals are indicators or signs but wild cards are events. Nikander and Eloranta (1997) introduce two categories of weak signals as preliminary signals and early warnings. The weak signals application was extended by Uskali (2005) into innovation journalism. Schoemaker and Day (2009) also provide different methods to identify and interpret weak signals.

Weak signals, early warning signals and strong signals

According to the WST, the level of information has two extreme stages: strong signals and weak signals. Ansoff (1975) made it clear, at the very beginning, to differentiate weak signals from strong signals. When a signal is strong, it will not be a warning but an indication of a coming problem. In fact, the WST is an attempt to understand characteristics of weak signals and, in turn, to monitor and detect them. Ansoff and McDonnell (1990: 20-21) argue that strong signals are “sufficiently visible” and

“concrete”, and weak signals are “imprecise early indications about impending impactful events”.

Normal strategic management or risk management have been using strong signals for a long time. The point of departure that the Weak Signals theory introduced is the difference between weak signals and strong signals, and how weak signals evolve into strong signals. When signals become strong, the ordinary management techniques can be applied. Thus, one of the main points of weak signals theory is the explanation about the evolution of signals from weak to strong status, and how to detect the signals as early as possible while they are transforming themselves into strong signals. Ansoff and McDonnell (1990: 20-21) claim that weak signals may mature over time and become strong signals. There are five different stages of signals: the sense of threat or opportunity is perceived; the source of threat or opportunity is known; the shape of threat or opportunity is concrete; the response strategies are understood; and the outcome of response is foreseen.

After interpreting, weak signals become early warning signals. Early warning signals are, therefore, well-identified and correlated weak signals (Goria, 2013). On the other hand, strong signals have much information and, therefore, are easy to detect, credible and rational, thus easy to be interpreted and consensus reached. However, the limitations of the strong signals are that organisations or teams do not have time to prepare and plan for responses. Thus, it can be argued that it is from weak signals that organisations could benefit from taking proactive and preventative actions for future problems and crises by these signals.

Presence of just signals and receiver of them does not suffice. There must be one thing that is essential and indispensable to connect these two points. It could be called a light or clear channel. Anything that is blocking or filtering, throughout such a connection between signals and signal receiver has to be removed or cleared, in order to make weak signal approach or analysis work. One of the major components in the discussion provided by the Weak Signals Theory is about these filters, and how to pass through them so that weak signals will be received by signal observer(s) and receiver(s) and then to take advantage of the information provided by weak signals and address or solve the future or embryonic problems, while still in their nascent stages, before they actually become a fully developed, or real, problems.

Ansoff (1984) states that three levels of filters exist between weak signals and signal observer(s)—surveillance filter, mentality filter and power or political filter. In order to be able to pass through the surveillance and receive weak signals, observer(s) have to know what kinds of information they are monitoring and detecting and what kinds of methods or mechanism should be used. At this point, it is necessary to point out that the Weak Signals Theory does not apply the risk knowledge database used by the early warning system of natural disaster management. The use of risk knowledge database could make the monitoring and interpreting the weak signals more efficient.

Information received after passing through the first filter, still has to pass through another filter called mentality filter, to make sense of the information and what problems and risk this information is revealing. At this stage, information is distinguished between weak signals that reveal incoming problems, and noises. After signals observer(s) decide that information is important and then pass it to decision-makers who will decide whether or not to take actions based on information and choose suitable response strategies. This stage employed by decision-makers is called the power or political filter.

Furthermore, Ansoff (1979) also discusses four kinds of delays that can make the use of weak signals theory ineffective. Those delays are (1) identification delay to spot early warning signs (weak signals), (2) verification delay to interpret and understand the meaning of signals, (3) political delay, i.e., decision-makers feel the recognition of the problems (performance deficiencies) revealed by early warning signals (weak signal) endanger their position or negatively reflect on their reputation, and (4) cultural delay, which is it about an organisational culture that tends to assume that the problem would work itself out, and does not have the tendency to take the necessary steps and actions. The first two delays are caused by capacity constraints. Ansoff (1984) also states that these four delays are caused by three levels of filters exist between weak signals and signal observer(s)—surveillance filter, mentality filter and power or political filter.

The first delay (identification delay) is caused by, according to Ansoff (1984) surveillance filter, or by Choo (2006) knowledge gap. The second delay (verification delay) is caused by, according to Ansoff (1984) mentality filter, and by Choo (2006) capacity gap (Choo, 2006). These two delays are caused by obstacles to identify the weak signals. One of the obstacles is the complexity of issues or problems. In

complex situations and problems, causality is less clear and it is not easy to identify the inputs (signs) and the outputs (problems). However, municipal service delivery processes are similar over the years as well as across municipalities—as they deliver similar services and follow similar procedures and processes—and many experiences and lessons could be accumulated and learnt from the past problems, mistakes and challenges. Another obstacle is the lack of a strong learning and record-keeping system in organisation. In the similar past experiences, some early warning signs have been noticed and acknowledged, but failure to record them in risk database results in the losses of valuable lessons and information of WST, which could be otherwise very useful to address or prevent problems, mistakes or challenges.

The third is by political reason, which is caused by power or political filter according to Ansoff (1984), or commitment gap, according to Choo (2006). It is a situation that is called by Choo (2006: 250) “knowing-doing gap in its action”, and by Nikander (2002: 122) “a credibility problem” because Nikander (2002) argues that it is the greatest difficult stage—of the four stages of the Decision Support Model of Early Warning (DSMEW) (see in Chapter 2)—as it is at this stage the observer has “to convince the decision-maker of the existence of a problem, its impact on the project, and the necessity of responses”.

And the fourth delay is caused by the organisational culture. It is possible to state that the local government culture is very young and has to evolve further. Thus it can be suggested that the future local government—which is matured and at a more evolved culture level—would be able to achieve the ideal form of local government, and then also be in a position to use EWS methods outlined by the Weak Signal Theory.

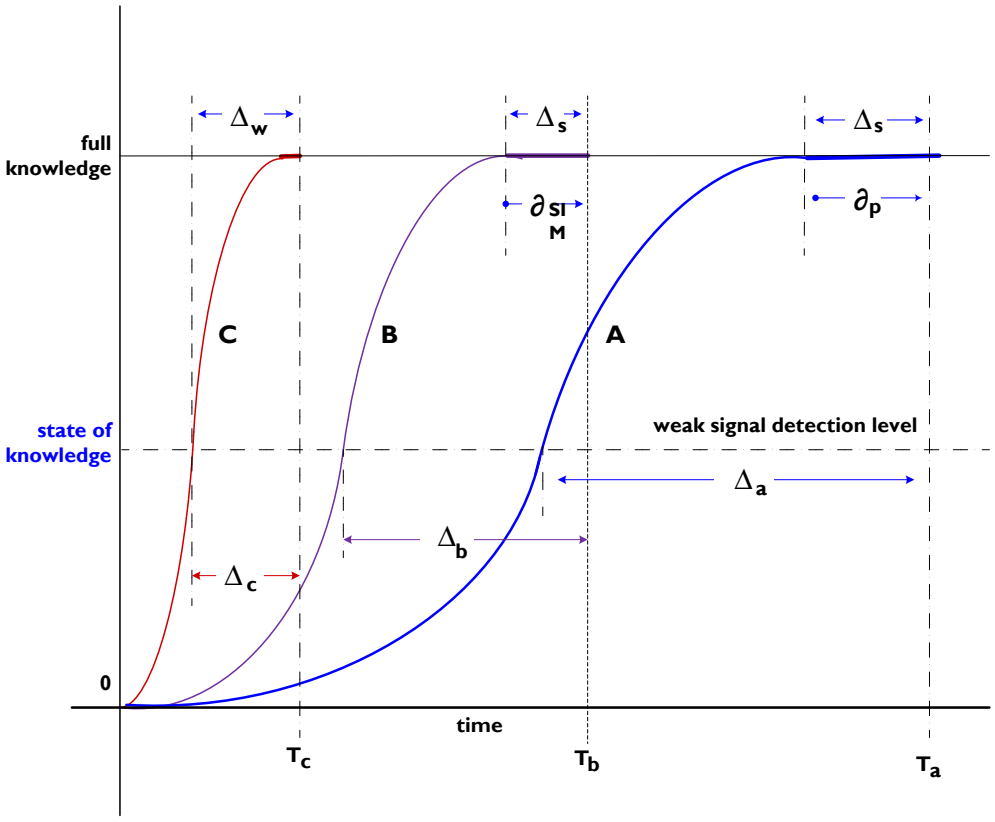
2.4.2 Decision Support Model of Early Warning (DSMEW)

In 2002, Nikander, who regards weak signals as early warning indicators, proposed a model called Decision Support Model of Early Warnings. The Decision Support Model of Early Warning (DSMEW) is a tool for anticipating the future aspects of municipal service delivery problems. The model provides a base to implement the early warnings phenomenon. The model has four concepts: concepts of signals, problems, time available, and responses to problems. And there are four steps involved in the Model: signals, problems, time and response. The first step of the model is about signals and monitoring, i.e., to monitor (or observe), detect and interpret the weak signals (or early warning signals of municipal problems. The second step is about

understanding the problems revealed by the weak signals, i.e., to discover the impending or forthcoming problems based on the interpretation of the signals. The third step is about calculating the time available for the responses required by the problem. In other words, it is to ask how urgent the situation is. Ansoff (1980) classifies the time available into three levels as delayable, postponable or urgent. Figure (2.5) describes three different problems (event C, B, and A) and time available for the responses for each of them (Δ_c, Δ_b, and Δ_a). It also shows the state the knowledge from zero knowledge to full knowledge of the weak signals (early warnings), and its relationship with time available for the response.

The last step of the model is to identify the responses. According to Nikander (2002: 121-2), it is the greatest difficult stage as it is at this stage the observer has "to convince the decision-maker of the existence of a problem, its impact on the project, and the necessity of responses". Nikander (2002: 122) calls that challenge "a credibility problem".

Figure 2.5 State of knowledge and time available



Source: Ansoff (1980: 144)

2.4.3 Four essential elements of an EWS

Together with these two theories discussed above, four essential elements of an EWS by the United Nations International Strategy for Disaster Reduction (UNISDR) (2005) will also be used to incorporate these four components in a M&E system so that it can serve as an EWS.

According to United Nations International Strategy for Disaster Reduction (UNISDR) (2005), to make an EWS effective and complete, four elements are indispensable. They are risk knowledge, monitoring and warning system service, dissemination and communication and response capability. This set of four elements is in a logical sequence and has direct and strong two-way linkages and interactions with one another. Failure in any one of these elements can mean failure of the whole early warning system (UN, 2006: v). The existing PM and M&E system of municipalities lack all of these essential components of an EWS.

Moreover, in *Why Smart Executives Fail*, Sydney Finkelstein (2004) argues that a key cause of failure of organisations is their inability to act on vital information and states four reasons for this failure—first, failure to recognise vital information; second, lack of clear communications channels for vital information to move from those who have it to those who can act on it; third, lack of motivation for the information holder to move it along or for the recipient to act on it even if there is a communications channel, and fourth, lack of oversight to ensure that the process is working. Researches on municipal M&E systems and service delivery processes (Rabie, 2011; Engela & Ajam, 2010; CDE, 2007) discover that these factors are indeed undermining the performance of municipal service delivery processes. According to Finkelstein (2004), it is necessary to design incentives for reporting vital information to responsible persons who can perform necessary preventative and corrective measures to prevent and solve the future problems. This study examined and investigated to what extent the current M&E systems has the characteristics and components of an EWS and how these system could be upgraded to be able to function as an EWS.

The purpose of this study is to understand the early warning signs of common problems and factors that negatively affect municipal service delivery performance. The good news is that the number of common problems and their EWSs are limited and can be documented. As Ansoff (1979) argues, any change or deviations from plans is preceded by some form of ‘warning’. An example of the detection and

utilisation of early warnings was given by Cleland (1994: 462) in his book *Project Management: Strategic Design and Implementation*. He said

> I can walk onto any project site anywhere in the world and within a short time tell you if that project is going to be a winner. It's easy; I just look at the people, what they are doing and how they are doing it. If the project people look determined, confident, enthusiastic, and busy, it's a good bet that you've got a winner team. If people respect each other, help each other and things seem to be getting done with a minimum amount of confusion, then you can be fairly certain that they have their act together and they will pull it off without much strain (Cleland, 1994: 462).

Similarly, in a study by Nikander (2002: 112), one interviewee states that "[s]omeone is always aware of impending or 'hidden' problems; nobody just wants to bring them out. Nobody seems to want to let the cat out of the bag". Nikander (2002) argues that even when warning information is inexact, some actions can be taken to prevent or defuse the budding problems.

In the context of municipal service delivery processes, it is possible to document or record common problems and factors that negatively affect municipal service delivery performance. Documenting, recording or just listing the past problems, challenges and crisis is the basis to build risk knowledge. Any of official documents of municipalities and MOEs do not mention about the existence of risk knowledge databases. Numerous reports, studies and researches have been carried out on the municipalities, factors affecting municipal performance and the problems and challenges municipalities have to face constantly. However, an establishment of a consolidated and comprehensive database on risk knowledge, in other words frequent problems and challenges as well as factors negatively affecting municipal performance yet have to be fully implemented.

Additionally, it is important to acknowledge that although the findings of the AG's reports (AG, 2010a, 2010b, 2010c, 2010d, 2011a, 2011b, 2011c, 2012a, 2012b, 2012c, 2012d, 2013a, 2013b, 2013c, 2013d, 2014a, 2014b, 2014c, 2014d) are useful and invaluable for municipalities to learn from their past experiences and not to commit the same mistakes again in the future, they do not serve as an EWS because of several factors. Documents such as the AG's reports highlight negative factors and causes that have already happened. But those reports are only published annually, and only focus on a particular institution rather than a sector or a particular unit (The Presidency, 2009). Nevertheless, it still needs to be stressed again that the AG's

report is valuable to document problems, causes of problems and factors that affect municipal performance negatively. Since municipalities are contextually, demographically and geographically different to one another, lists of common problems and their early warnings have to be developed for each municipality.

Although an M&E system could be considered as an EWS, not all M&E systems have the essential elements of an EWS and therefore neither function nor serve as an EWS. The current M&E system of the CoJ, together with municipalities in South Africa, does not serve as an EWS. Information and indicators in the current M&E systems provided are structurally deficient for decision support other than the most primitive form of reporting and control budget variances. Then too, the M&E systems do not have the essential components of an EWS.

According to the United Nations International Strategy for Disaster Reduction (UNISDR) (2005), in order to be effective and complete, an early warning system needs to comprise all four interacting elements, namely: risk knowledge, monitoring and warning system service, dissemination and communication and response capability. This set of four elements is in a logical sequence and has direct and strong two-way linkages and interactions with one another. Failure in any one of these elements can mean failure of the whole early warning system.

According to UNISDR (2005), past events have to be studied and improvements have to be made to the early warning system, major players and stakeholders have to meet regularly and consult each other, risk scenarios are constructed and reviewed, specific responsibilities are agreed, information has to be disseminated and staff have to be trained.

The purpose of this study is to develop a model of an EWS for municipal service delivery processes in four key basic service areas. The development of a model of an EWS is based on performance measurement principles and on previous researches on early warnings and early signals, especially on Ansoff's seminal work on "weak signals" (1979).

2.4.4 Four roots of service delivery problem

Devarajan and Reinikka (2004) argue that there are at least four roots of the service delivery problem. These are resources misallocation, weak incentive, expenditure

‘leakages’, and demand side failure. The service delivery problems occur when either one or some or all of these root-causes are embedded in the service delivery processes. The first cause is misallocation of resources. It is a budgeting or resources allocation problem that occurs when the government spends resources on the ‘wrong’ goods or the ‘wrong’ people. Castro-Leal, Dayton, Demery and Mehra (1999) discovered that less than 20 per cent of public spending in health and education reaches the poorest twenty per cent of population who actually need the benefits, while more than 80 per cent of the spending go to the rich and middle-class who do not really need the help of government.

The second cause is ‘expenditure leakages’. It happens when the resources allotted by the government do not reach frontline service providers. In other word, it means the money does not reach its ultimate destination. Reinikka and Svensson (2002) gave an example of Uganda where, during 1991 and 1995, only 13 per cent of the central government grant (nonwage recurrent expenditure) for primary education reached the schools. Reinikka and Svensson (2002) also discovered that the same experiences also happened in Ghana and Tanzania too. Expenditure leakages also happened in municipalities of South Africa. According to the Auditor General’s Consolidated General Report on the Audit Outcomes of Local Government (2016: 17), in the 2014-2015 financial year, municipalities incurred unauthorised expenditure of R15,32 billion, irregular expenditure of R14,75 billion, and fruitless and wasteful expenditure of R1,34 billion. Devarajan and Reinikka (2004) argue that it can be solved through a practical and effective expenditure tracking system. Through having an effective EWS, these kinds of problems could be detected and corrected in time.

The third cause is called the ‘weak incentive’ problem. It is attributed to the issues of accountability and monitoring. When there is no incentive or a weak incentive to the service providers especially when they are poorly paid and hardly ever monitored, the service delivery will be poor. This problem could be addressed through an effective mechanism of monitoring and holding the service providers accountable. The final cause is a result of failure of the demand side caused by the community’s unawareness of services to which they are entitled. It could be solved through raising public awareness and participation.

The framework of four roots of service delivery problem indicates that municipal service delivery can be best explained and understood by critically analysing each of

these four root causes of service delivery problem. These four root causes guide the set of questions to be asked and answered by the semi-structured interviews and site observations.

Most of the debates and arguments concerning municipal service delivery performance are based on resource constraints. However, since the focus of this research is on the effectiveness and accountability dimensions of the municipal service delivery process from the point of view of an M&E, the issues on resource-constraints are not pertinent. Instead, this research will focus more and emphasise the EWS characteristics of M&E systems in municipalities. Thus, external constraints, which are out of the control of municipalities, go beyond the scope of this study and will be discussed at a minimal level. Most importantly, this section also discusses why the AG's performance audit and reports do not serve as an EWS. The next section discusses the four essential components of an Early Warning System (EWS).

2.5 The relationship among the key concepts

For the sake of clarity and convenience, it is necessary to discuss the relationship between and among the key concepts involved in the study. The key concepts of this study are "weak signals", early warning system (EWS), effectiveness, and accountability.

2.5.1 Weak Signals

There are several different definitions of weak signals, for example Ansoff defines weak signals as "imprecise early indications about impending impactful events… all that is known (of them) is that some threats and opportunities will undoubtedly arise, but their shape and nature and source are not yet known" (Ansoff & McDonnell, 1990: 20; Ansoff, 1984: 22), and signals or the first symptoms of possible change or changes (Hiltunen, 2007: 6). Kuusi and Hiltunen (2011: 48) note that it is because "the key feature of the weak signal is that it has *rival* interpretations" (emphasis in the original).

Nevertheless, the underlying concept of weak signals or its definition is clear; it is a weak, ambiguous, inexact, fuzzy, fragmented, unclear, vague and disputable signal or information about future problems, risks or changes. For this research, weak signal is defined, pragmatically, as a weak and disputable but useful and important piece of

information about possible or impending problems and challenges that occur in municipal service delivery processes.

There are primarily three main components that the weak signals theory expound: firstly, what is a weak signal, and its importance for organisations; second, how to detect, analyse, and understand the signals. In order to be of use the information provided by them in preparing and planning to address, handle, mitigate or even eliminate the impacts of these problems when they become real problems; and third, what considerations and steps are involved in the process of weak signals analysis and approach.

2.5.2 Early Warning System (EWS)

Early warning systems (EWS) have been used, probably since the beginning of human culture, intensively in many fields, especially in the field of natural disaster management. But there is no universally accepted definition of an early warning system (Glantz, 2004). However, Basher (2006: 2170) defines an 'early warning' system as a "means to the provision of information of an emerging dangerous circumstance where that information can enable action in advance to reduce the risks involved". The UN formally defines it as "the provision of timely and effective information, through identifying institutions, that allow individuals exposed to a hazard to take action to avoid or reduce their risk and prepare for effective response" (ISDR, 2003). Glantz (2004: 9) defines an EWS more broadly as "a social process for generating maximally accurate information about possible future harm and for ensuring that this information reaches the people threatened by this harm, as well as others disposed to protect them from the harm".

However, the definition and functions of an EWS integrated into M&E is not the same as those of the most common type of EWS usually applied in disaster, risk and strategic management. While the EWS in disaster, risk and strategic management is to expect, prepare to deal with, and address unexpected circumstances or events, an EWS integrated into the M&E system proposed by this research is only to expect, prepare to deal with or address, and pre-empt common problems that municipalities and municipal entities experience or face or have to deal with in their daily activities of delivering services to community members. Accordingly, based on the nature of these research questions and objectives, this research simply defines it as a detection

process that alerts key players and stakeholders of developing problematic trends that can be obviated by taking corrective and preventative interventions.

The rationale behind the necessity and importance of an EWS as a part of a M&E system is based on two premises: the first premise is that most of the common problems can be documented and the causes and early indicators or information of these problems could be figured out or understood, and the second premise is that preventive actions could be taken and therefore the consequences or severity of most common problems of municipalities could be less than the resulting situations.

A conceptual framework for an EWS is a tool to enable municipal service delivery to succeed. By establishing a system for early warnings, the municipal team will be able to get signals on emerging problems – including opportunities – and by using these signals is able to act upon them to reduce risk or to improve its service delivery performance. The development of a conceptual framework for early warnings in the municipal service delivery process is based on performance measurement principles and on previous work on early warnings and early signals. In short, the basic idea behind EWS is that the earlier and more accurately future problems and challenges can be predicted, the more likely it is they can be managed, mitigated and prevented by taking appropriate actions more effectively.

Although an M&E system could be considered as an EWS, not all M&E systems have the essential elements of an EWS and therefore neither function nor serve as an EWS. Glantz (2004) states that two groups of people are involved in an EWS. One group monitors changes and provides technical information to another group who inform, warn or alert society, as is often the case, to warn the government. As Hamilton (1999) suggests, predictions will not be useful without translating them into a warning and action plan that are understandable for the public—in this case for stakeholders and persons responsible for municipal service delivery processes, or if these warnings do not reach people who need them timeously.

One of the functions of a systematic EWS is documenting the compliance or non-compliance with laws, rules, and procedures during the municipal service delivery process. The most unnoticed but important and valuable advantage an organisation, department, or municipality can attain from a systemic and effective EWS (of M&E system) is having deadlines for tasks. Moreover, it can be realised from our daily

experiences that, deadlines force people to prioritise and tasks that have deadlines usually and generally get done before those that do not. It can also be a great help in conducting a comprehensive diagnostic assessment of the functionalities of the municipal service delivery process. By these means, it can be an effective tool in making the municipal service delivery process efficient in the most cost-effective way.

2.5.3 Effectiveness

Roger (1990: 15) argues that defining effectiveness as the relationship between outputs and outcomes and, more precisely, as the extent to which policy objectives are achieved is not a comprehensive definition because focusing primarily on the intended effects of a policy will ignore the unintended effects that can be of equal importance.

Kernaghan (2010) refers effectiveness to the degree to which a service is achieving its intended results. Various policies, frameworks and legislation have been put in place by the South African Government to enable effective service delivery to its people. In 2003, Khumalo, Ntlokonkulu and Rapoo (2003: 4) estimate the annual municipal service backlog of South Africa in 2003 was between R47 and R53 billion with an annual service backlog of R10 billion. The reasons for this huge backlog are, according to Khumalo, Ntlokonkulu and Rapoo (2003: 4), ineffectiveness of South African municipal administrative structures and lack of service orientation.

The focus of this research is effectiveness and accountability. The low quality of service delivery, which is a result of skills shortages and resource constraints, therefore, are not regarded as a failure of municipality as long as the issue of skills shortages and resource constraints are duly noted and communicated to the responsible stakeholders such as national and provincial governments, local community and local government leadership. In the same vein, there are several important, but external factors, i.e., not in the control of municipalities, that hinder the performance and quality of municipal service delivery processes, these were discussed briefly but in-depth study was not be carried out because these issues are irrelevant to the research questions and problems of this study. External factors are structural problems, which include poverty, high unemployment, Apartheid legacy, unclear roles between government spheres, impact of South African developmental model, weak infrastructure (which is also partly because of municipal failure), underdeveloped financial markets, ineffective intergovernmental relation, weakness in

policy and regulatory framework and ineffective over-sight by national and provincial governments.

As the World Bank (2003: 47) emphasises, if service providers (municipalities) are not given adequate resources, holding them accountable for poor outcomes is not fair and also not enforceable, Resource constraints per se is, therefore, not the focus of this study. However, failure to recognise, report and take actions to address these issues is within the area of this study, because it is relevant to the function of a PMS. Moreover, the M&E mechanisms need to monitor the level of available resources as well as the resources necessary to perform tasks according to agreed and approved IPD plans.

Furthermore, since this research studies and explores the level of effectiveness of the functions of the municipal service delivery process, the focal point of this study is how efficiently and effectively the municipality executes it service delivery process; in other words, how the municipality uses available resources effectively as well as accountably in their service delivery process. Such a position of this research is also applicable to other factors, such as skills shortages, unclear delegation or role among the municipal officials and staff, and other external factors, that cause the quality of municipal service delivery to be weak. So most of the challenges faced by municipalities are therefore not also relevant to this research question.

However, it is important to note that although skills shortages and resource constraints are external factors to the municipal responsibility, it is their responsibility to utilise the resources effectively and accountably. It is not a fault of a municipality if it cannot deliver services to the local community simply because of the lack of resources and skills. However, it will be the fault of the municipality if it does not take the necessary steps to consult with higher spheres of government and its local community about the constraints. As mentioned before, the ultimate objective of this research is to develop and propose a M&E model, which has the components and characteristics of an EWS and can therefore serve as an EWS, will assist and empower the municipalities to do effectively and accountably what they have to do, but not what they have no control over or are unable to do, in other words it means letting the municipalities take responsibility for their tasks, i.e., their service delivery responsibilities.

Grounded in this basic conceptual framework, it could be concluded that there are many complaints and criticism about the municipal service delivery process and performance is, in fact, not because of municipal failure and this research will, therefore, neither explore nor study these factors. Instead the research will study how existing M&E mechanisms fail the municipalities leaving them unable to recognise, record, inform, alert and seek corrective assistance, guidance and intervention from the national and provincial governments.

2.5.4 Accountability

Various studies (World Bank, 2011: ix; Fiszbein, 2005: 4; Devarajan & Reinikka, 2004: 7) discovered that there is a positive relationship between enforcing the accountability of the service provider and the service delivery quality and performance of the municipalities. According to the World Bank (World Bank, 2011: ix), the more local community members are empowered to demand or enforce the accountability of service providers whether they are municipal or private providers commissioned by the municipality, the better the service delivery quality and performance of the municipalities. The aim of performance monitoring of municipal services is to oversee the implementation or delivery of municipal services as they happen at ground level. This is the supervisory or managerial process of monitoring (Singh & Shah, 2003: 3). Therefore, to improve quality and coverage of public services, “the key is to enhance the power of poor clients in service provision” so that they can hold service providers accountable whether they are municipality or municipal entities or private providers privatised by municipalities.

Similarity, Fiszbein (2005: 4) argues that there are four situations when services typically fail—when governments do not feel the pressure to respond to citizen demands; when they are incapable of enforcing basic performance rules on those directly responsible for service delivery; and when citizens have no control or choice over service providers. Devarajan and Reinikka (2004: 7) discuss the relationship between holding service providers accountable, monitoring the delivery of service, and the quality of service received by the local community. They argue that the service provider does not feel accountable when the delivery of service is poorly monitored, if at all. It is because typically, the service provider is an employee of the municipality, which sends him or her a pay cheque regardless of whether he or she performs his or her functions. Devarajan and Reinikka (2004: 7) state that the symptoms of this problem are everywhere.

2.6 Conclusion

This chapter provides the theoretical and conceptual frameworks of the study. Firstly, it explains two methods of problem-solving approaches: a reactive approach and a proactive approach. M&E with an EWS is presented as a proactive problem-solving approach because it provides the means and mechanisms to solve problems while they are still in their nascent stages. It then proposes how a proactive problem-solving approach can be designed by using a four-step journey. The four-step journey serves as a conceptual framework because it clarifies the concepts of M&E and EWS, what makes M&E able to serve as an EWS (as required by legislation), how M&E is able to provide early warning information of emerging problems.

Then, theories and approaches involved in making M&E able to provide early warning information are introduced. The discussions on the similarities and differences are made. As a theoretical framework, it introduces three theories and a model (the decision support model of early warning), and why they are used in this study are explained. It concludes with the definitions of key concepts used in this study. The following chapter presents the local government M&E systems and service delivery challenges discussed in literature.

Chapter 3

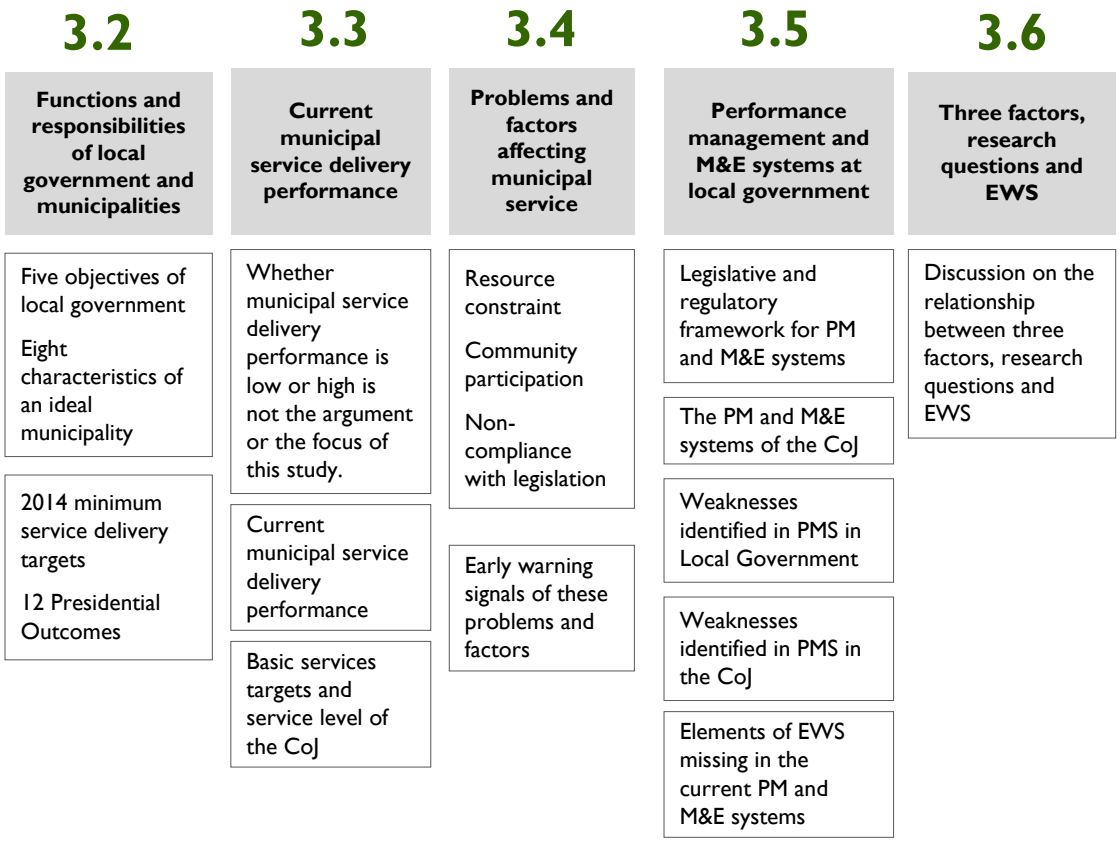
LOCAL GOVERNMENT M&E SYSTEM AND DELIVERY CHALLENGES

This chapter explores a number of debates and arguments in current literature on local government, municipal responsibilities, functions, the level and targets of services constitutionally required to be delivered to local communities, and the current level and quality of municipal service delivery performance, problems and factors affecting municipal service delivery performance, legislative and regulatory framework for Performance Management system (PMS), and M&E system. Moreover, this section also explains why it is necessary to discuss PMS of municipalities while the focus is on M&E system. It also discusses performance auditing and the Auditor General's annual report, which while very valuable, does not serve as an EWS. Both this chapter and the previous one (Chapter 2) present literature review. Chapter 2 is related to the concepts and the theories, i.e., the general concepts of M&E, EWS and theories related to them, while this chapter is related to the context this study explores, i.e., about South Africa's local government M&E system and service delivery performance and challenges.

3.1 Introduction

There are five main sections in this chapter. The first section (3.2) discusses the functions and responsibilities of local government and municipalities. The second section (3.3) provides the current municipal service delivery performance and challenges in local government and the City of Johannesburg. The third section (3.4) provides the legislative and regulatory framework for the performance management and M&E systems of local government, the performance management and M&E systems of the CoJ, the weaknesses identified in performance management system in local government as well as in the CoJ, and EWS elements that are missing in the current municipal PM and M&E systems. The fourth section (3.5) presents the factors affecting municipal service and the relationship between the four roots of service delivery problems and selected three factors. The last section (3.6) discusses the relationship between the selected three factors, the research questions and the early warning system (Figure 3.1).

Figure 3.1 Outline of the chapter 3: Local government M&E system and delivery challenges



3.2 Functions and responsibilities of local government

South Africa is one of the few, if not the only country, among developing countries that have taken the bold step to improve the abilities of local government to deliver services (DPLG, 2001: 2). Local government in South Africa is an independent sphere of government, which has its powers and functions constitutionally enshrined. It is neither a third level of government, nor a function of national or provincial government, nor subordinate to them. As the closest manifestation of government to the people and based at the places where needs are felt, local government is strategically located to perform its mandate of providing basic services to the people, as a first step towards developing communities in South Africa (Section 152 of the Constitution).

The objects of the South African government are mentioned in the Constitution (Section 152) which is to establish a democratic and accountable local government system that ensures the provision of services to communities in an accountable and sustainable manner thus promoting good governance. The constitution (RSA, 1996: Section 151) establishes five objectives of local government such as to be a

democratic and accountable local government for local communities, to ensure the provision of services in a sustainable manner, to promote social and economic development, to promote a safe and healthy environment, and to encourage the involvement of communities and community organisations in the matters of local government.

The vision for a developmental local government system is outlined by the White Paper on Local Government (RSA, 1998a: Section B, part 3). The Constitution (1996) and the White Paper for Local government (1998) envisaged an 'ideal' local government as a developmental one that is "committed to working with citizens and groups within the community to find sustainable ways to meet their social, economic and material needs and improve the quality of their lives" (RSA, 1998a). According to the Department of Cooperative Governance and Traditional Affairs (CoGTA, 2009), an ideal municipality has eight characteristics; (1) providing democratic and accountable government for local communities, (2) being responsive to the needs of the local community, (3) ensuring the provision of services to communities in an equitable and sustainable manner, (4) promoting social and economic development, (5) promoting a safe and healthy environment, (6) encouraging the involvement of communities and community organisations in the matters of local government, (7) facilitating a culture of public service and accountability amongst its staff, and (8) assigning clear responsibilities for the management and co-ordination of these administrative units and mechanisms. These characteristics will be used as a benchmark for evaluating and assessing the current performance level and quality of municipalities.

Since the municipal service delivery process and its performance level are also the parts of this research, it is necessary to look at the major functions and responsibilities of local government, which is to deliver basic services to everyone, particularly those who currently have little or no access to services. As White Paper on Local Government (RSA, 1998a) notes, "good basic services are essential to enable people to support family life, find employment, develop their skills or establish their own small business". As the closest government to the people, the primary goal of local government functions is therefore to deliver services to communities effectively, so that the quality of life of all citizens will be enhanced, many new economic opportunities can be created and productive initiatives will be increased, and as a result local economic development could be achieved (Maphazi, 2011: Bekink, 2006; Roux, 2005).

Although the Constitution does not define the word services, municipalities are constitutionally compelled to provide sustainable, impartial, equitable services to local communities. Similarly, the Municipal Systems Act (2000), which dedicates a chapter to municipal services, does not define what these services are that municipalities must provide, however it compels municipalities to ensure that all members of the local community have access, at least, to the minimum level of basic municipal services. However, a list of local government functions is described in Schedules 4B and 5B of the Constitution. Similarly, sections 9 and 10 of the Municipal Systems Act (2000) cover the allocation of powers and functions to local government. The functions include air pollution, building material, child care facilities, electricity and gas reticulation, fire-fighting services, local tourism, municipal airports, municipal planning, municipal health services, municipal public transport, municipal works, pontoons, ferries, jetties, piers and harbours (excluding the regulation of international and national shipping, storm water management systems in build-up areas, trading regulations, and water and sanitation (limited to potable water supply, domestic waste and sewage disposal systems.

However, this research focuses on the four basic services of municipalities, which are provided at no charge by the government through municipal entities to 'indigent' households. Free basic services refer to the minimum amounts of service levels that are required in terms of health and environmental considerations. There are four services (1) a minimum level of free water to promote healthy living; (2) the provision of a basic level of sanitation services; (3) the basic level of electricity/energy to be supplied free of charge to support all households; and (4) a minimum energy free refuse removal service. Households and peoples, whom I interviewed as a preliminary study as a part of the process of developing the problem and context of this research, said that they do not understand about the free service levels. They are not sure that they get any free electricity because they pay for their usage in total. Moreover, they said they pay for their refuse removal. Thus it needs to be explored throughout the study.

A policy of free basic services includes providing basic levels of services for free to those already having access to services and extending service delivery to those who do not have access. According to Carrim (2010: 41), basic service refers to a service that is necessary to ensure an acceptable and reasonable quality of life, and, if not

provided, would endanger public health or the safety or the environment. Basic services include clean water, sanitation and refuse removal, and the delivery of them will greatly assist in poverty eradication and community development. The 2000 Election Manifesto of the ruling African National Congress (ANC) government views access to basic services as universal and a constitutional requirement and mandates local government to render limited free basic services. For example, basic water as 6000 litres (6kl) per household per month and basic electricity as 50 kilowatt hours (kWh) per household per month to communities who cannot afford to pay for municipal services. Municipal Systems Act 32 of 2000 states that these services can be provided by a municipality itself or through other alternative service delivery methods in terms of the Local Government and service delivery mechanisms and standards should be regularly reviewed with the intention of improving and extending them (Tsatsire, Taylor & Raga, 2010: 278).

Concerning the free basic services, two targets were set. The 2014 minimum service delivery targets were set by the government, to be in line with the Millennium Development Goals. According to the 2014 minimum service delivery targets, by 2014 all households are expected to have access to at least clean piped water 200 m from household; to have access to at least a ventilated pit latrine on site; to have access to refuse removal services at least once a week, and to be connected to the national electricity grid (SALGA, 2011: 17). The Presidency also set 12 Presidential Outcomes. Outcome No. 9 is to have a responsive, accountable, effective and efficient local government system. Outcome No. 9 has seven outputs. However, being focusing on the basic municipal services, only Output No. 2 is relevant to this research. According to Output No. 2 of the Presidential Outcomes, No.9, universal access to water is targeted from 92% to 100%, sanitation from 69% to 100%, refuse removal from 64% to 75%, and electricity from 81% to 92% by the period ending 2014 (The Presidency, 2010).

One of the important components of municipalities is municipal owned entities (MOEs) established and based on market fundamentals. They are wholly owned by municipalities but run as separate companies and have their own PM and M&E systems, which are not always in alignment with the PM and M&E systems of their municipalities. More importantly, the municipalities do not have legal authority to enforce and penalise them when their service delivery performances do not achieve the agreed standards and levels.

To further complicate the functionalities and performances of municipalities, according to Karodia (2010), the principles underlying the process of decentralisation and the establishment of commercial entities are conflicting and have a negative impact on the performance of municipal service delivery processes. Karodia (2010) argues that the efforts of municipalities to fulfil their service delivery targets have been compromised by two parallel and contradictory processes of public sector transformation. These two processes are decentralisation and establishing commercial utilities. Decentralisation of the functions of public sector service delivery into the local government sphere suggests state-led participatory development at the local government level. However, establishing municipal entities based on market fundamentals advocates an economic development that is led by the capitalist class.

The main area of this research is the M&E systems of municipalities, its strengths and weaknesses, and its impact on the performance of the municipal basic service delivery process. The following section will discuss the current performance level of municipal service delivery.

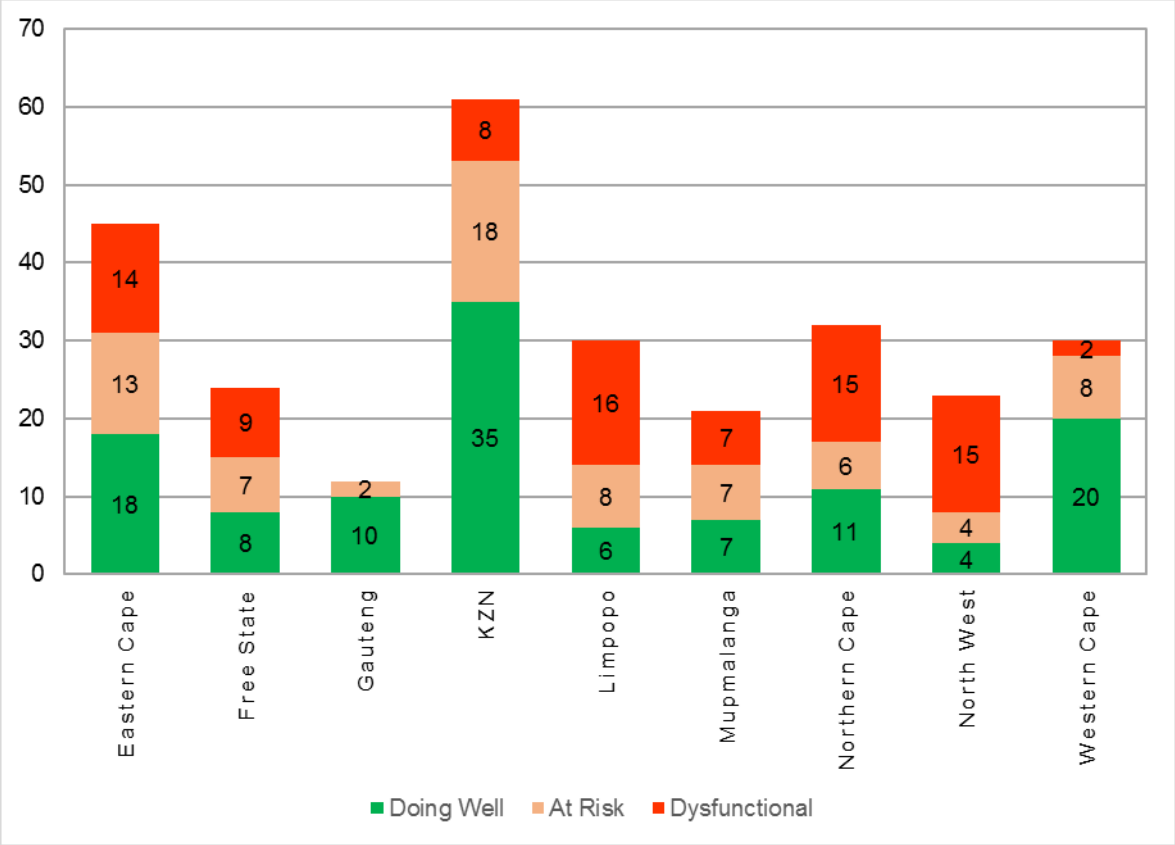
3.3 Current municipal service delivery performance

Improving municipal service delivery performance remains a key priority for the South African government (CoGTA, 2015; PSC, 2010) and over the past fifteen years, local government has improved service delivery substantially, at an unprecedented pace, however most of the local municipal councils face a widening gap between the demand and the supply of services (Makananisa, 2011). As described above, whether municipal service delivery performance is low or high, or municipalities are struggling with problems and challenges are not the arguments or the focuses of this study. This study is grounded in a position that, no matter what the current level of municipal performance is, there are still ways or possibilities to improve the performance. However, in order to improve the level of performance, it is necessary to understand the current performance level.

According to a study conducted by the CoGTA (2015), the performance of municipalities can be divided into three groups: the top third that have got the basics right and are performing their functions at least adequately; the middle third that are fairly functional, and overall performance is average; and the bottom third that are dysfunctional (Figure 3.1). According to CoGTA (2015), the level of national average

of municipal service delivery in 2015 is 90% for water, 79.5% for sanitation, 80% for electricity and 63.8% for refuse removal (Table 3.1).

Figure 3.1: Back-to-Basics Performance of Municipalities per Province



Source: CoGTA, 2015: 10.

However, it is necessary to mention that the current levels of household access to the four basic services are in fact not as bad as media and critics are portraying. The service levels of the City of Johannesburg Metropolitan Council (CoJ), which is the unit of analysis of this research, in 2015 were impressively high and much higher than the national average CoGTA, 2015 July: 35; CoJ, 2015 (IDP); CoJ, 2016: 39 (SDBIP). The current service levels of water, sanitation, electricity and refuse removal of the CoJ have already achieved the targeted levels to be met by 2014. In the CoJ 98.5% of household have flush toilet connected to sewerage, 96.9% of households have weekly refuse removal, 96.8% of households have access to water and 90.8% of household have electricity for lighting (See Table 3.1). Moreover, the communities' satisfaction level with municipal service are also very high. According to a survey conducted by CoJ, 89% of the respondents said that they were satisfied with water services, 80% with sanitation, 84% with energy and 83% with waste removal (CoJ, 2015idp: 155).

Table 3.1 Basic services targets and service level of the CoJ (2015)

Targets and current service levels in the City of Johannesburg (CoJ)	Percentage of households that have adequate access			
	Water	sanitation	electricity	refuse removal
Minimum Standard 2014 Target (SALGA, 2011)	100%	100%	100%	100%
Output No. 2 of Presidential Outcomes No. 9 (by the end of 2014)	92% -100%	69% -100%	81% -100%	64% -75%
Current level of national average (2015) (CoGTA, 2015)	90%	79.5%	80%	63.8%
Gauteng (CoGTA, 2015)	96.4%	90.9%	83.8%	89.1%
CoJ (CoJ, 2015 (IDP); CoJ, 2016: 39)	95.8%	98.5%	90.8%	96.9%

Source: SALGA, 2011; The Presidency, 2010; CoGTA, 2015 July: 35; CoJ, 2015 (IDP); CoJ, 2016: 39 (SDBIP).

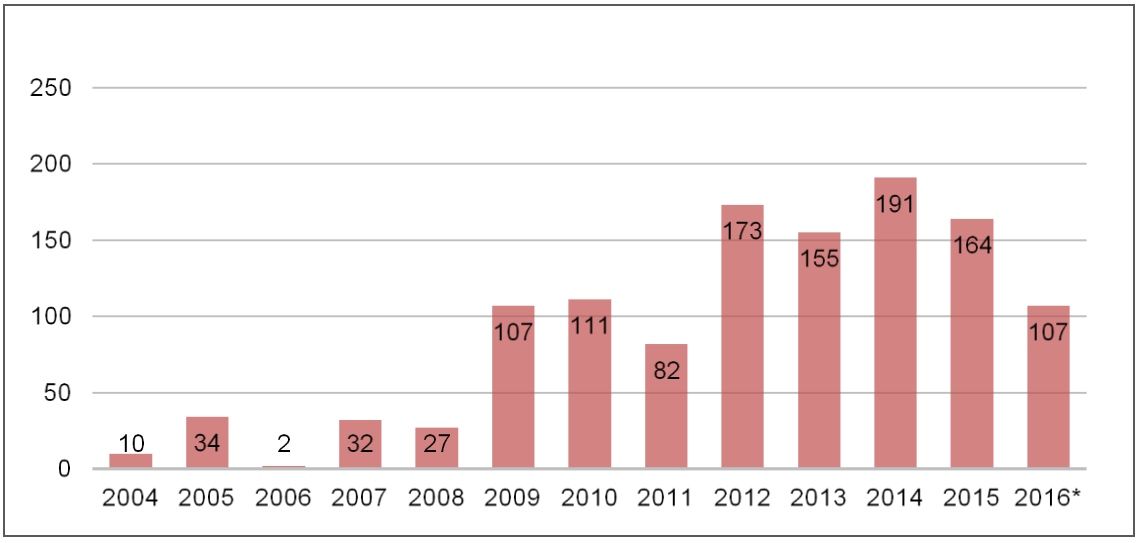
However, the numbers and percentage of service levels do not tell us anything about the quality of the services and the satisfaction level of community members. Moreover, these levels are an average of all cities and towns that are included into the CoJ and there are many cities and towns where the service levels are much lower than these averages and their real situations are not reflected in these data. It should be understood that performance of municipal service delivery is not only about the numbers of households that have access to the services, but the quality of services delivered to the community, the relationships between the staff and officials of municipalities and the community members, public participation in the decision making processes are also important factors in municipal service delivery. There is also a general consensus that it is the customer or the community members who define service quality (Fornell, 1992; Gronroos, 1984; Parasuraman, Zeithaml & Berry, 1985).

In his book *Quality is Free*, Philip Crosby (1979) argues that quality is 'free' because it doesn't really cost any more to do your best as an individual or as an organisation, and then advises organisations to constantly do their best and focus on the needs of the customers. It is important to understand that quality is sometime related to and

concerned with the attitudes of persons who 'supply' delivery and how they communicate with customers and community members. From the public's almost every day experiences of dealing or working or communicating with public servants such as municipal workers or staff of the Home Affairs Department or nurses from public clinics, what most of the public expect is not only services but also to receive the values and principles envisioned in the *Batho Pele* White Paper (RSA, 1997).

Moreover, one of the critical matters is an expectation or performance gap between the expectation of community members from the municipalities and the level of services actually delivered by the municipalities. The government, through the Constitution and three White Papers, i.e, WPTPS (RSA, 1995), *Batho Pele* White Paper (RSA, 1997) and the White Paper on Local Government (RSA, 1998a), has effectively raised the expectation levels of community members of the municipal service delivery processes, thus the government and municipalities have to make sure that services are delivered to the level and qualities of community expectations. Otherwise, as Goodman (2000: 6) points out, an expectation or "performance gap will sow the seeds of dissatisfaction" and also the continuation of the service delivery protests that the country has been experiencing since 2004. Over the past ten years, a flood of community service delivery protests has been overwhelming the country and the growing dissatisfaction of citizens with local municipalities have increased.

Figure 1: Major service delivery protests, by year (2004 –31st August 2016)



Source: Municipal IQ, 2016: 1

The Economist magazine (2010) states that in 2009 South Africa lost an estimated 1.5 million working days to strikes, beaten only by Canada, which lost around 2.2-million working days to industrial action. It is also necessary to state that service delivery protests were not the results of low service delivery performance—there are political aspects and grievances of community members related to issues that are not directly related to local government' control or performance, for instance, issues of housing delivery, which is the provincial government's responsibility. That point is evident in the numbers of protests by province. According to Municipal IQ (2016), in 2014 there were 191 service delivery protests and in 2015, 164 protests. Although Gauteng province does not have any dysfunctional municipalities, during the 1st January and 31st August 2016, 30% of service delivery protests that occur in the country occurred in Gauteng (Municipal IQ, 2016; Allan & Heese, 2011) (Figure 3.1).

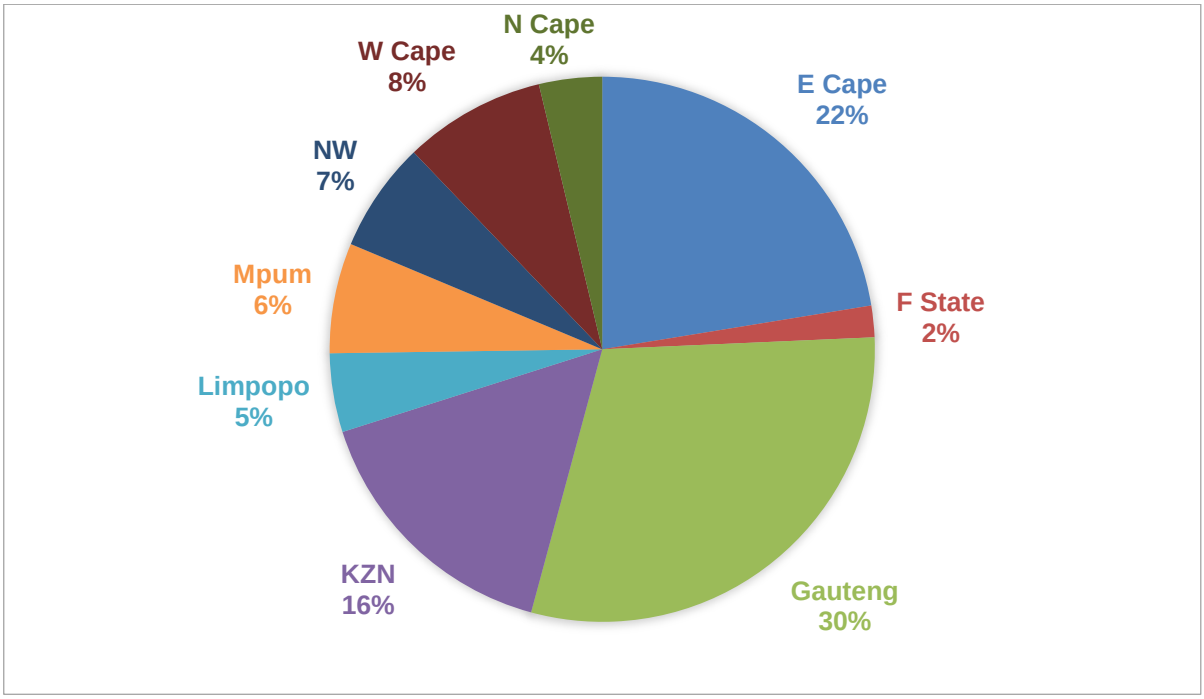
The Gauteng City Region Observatory's (GCRO) Quality of Life Survey III, suggests that the reason for the Gauteng having almost one third of all service delivery protest is that communities are generally satisfied with service, their satisfaction with government is low (GCRO, 2014). Furthermore, in its Quality of Life Survey, GCRO (2015: 2) points out that "High levels of service satisfaction do not translate into high levels of satisfaction with government". In Gauteng provinces, 59% of residents are satisfied with services provided by local government, only 34% are satisfied with the performance of local government generally.

It is a generally accepted fact that the level of national aspiration expressed at the start of the new nation and the high level of community members expectations encouraged by the most progressive Constitution in the world and the principles and values embraced in the *Batho Pele* White Paper (1997) have not been achieved yet, as has been confirmed by the ongoing service delivery protests and pronouncements both from government leadership including the president himself, community members and civil society.

In its Back to Basic study, CoGTA (2014) states that necessary resources and systems are available in municipalities but what is lacking is the basic mechanisms to perform these functions are often not in place. CoGTA (2015) discovers that nationally, there are six primary challenges that municipalities are experiencing. They are (1) deteriorating infrastructure services in some municipalities as a result of either not providing at all or provided but at low quality levels; (2) breakdown of trust in local

government by communities because of slow or inadequate responses to communities' concerns and questions related to municipal services; (3) inadequate public participation and social distance by councillors; (4) low collection rate of revenue; (5) lack of skills of personals and inappropriate appointments and replacement; and (6) widespread instances of corruptions.

Figure 3.1: Service delivery protests by province 1st January and 31st August 2016



Source: Municipal IQ, 2016: 2

Furthermore, there is a concern for efficiency and effectiveness of municipalities and municipal entities too. During the financial year 2014-15, the City lost R10.67m of impairment of consumer debtors (which is 68% of total consumer debtors) (AG, 2015coj: 2; CoJ, 2015: 389). Moreover, in the same financial year, the City lost R2.6b because of material electricity losses (which is 29% of total electricity purchased due to distribution losses (R8m) and criminal conducts such as theft, bypass of meters, illegal de-calibration of meters and damaged meters (R1.8m) (AG, 2015coj: 2; CoJ, 2015: 389). And during the same financial year (2014-15), 37.8% of Johannesburg's water (229,658 megalitres) is unaccounted for annually, costing the City R1.2b (R0.6b for leaks and R0.3b for illegal connections) (Molatlhwa & Smillie, 2015).

Moreover, during the same financial year (2014-15), Johannesburg Water lost R3.9b because of material impairments caused by debtors, which is 66% of consumer debtors (JW, 2015: 99; AG, 2015jw: 14), and Pikitup lost R3.9b because of material impairments caused by debtors, which is 66% of consumer debtors (Pikitup, 2015: 118; AG, 2015p: 1)[1] (Table 3.2). The Auditor-General states that these types of losses, although not planned, do occur in the normal course of business and considerations should be taken when developing the budgets.

Table 3.2 Material losses incurred and impairment of assets

(In CoJ, City Power, Johannesburg Water, and Pikitup Johannesburg)

Auditee	Material losses	Material impairment caused by debtor	Reason(s)
Metropolitan municipalities			
CoJ		R11m	Consumer debtors
Municipal entities			
City Power	R2.6b		distribution losses, Criminal Conduct
Johannesburg Water	R1.2b	R3.9b	Water losses, illegal connections, consumer debtors
Pikitup		R3.9b	consumer debtors

Source: AG, 2015coj: 2; CoJ, 2015: 389; Pikitup, 2015: 118; AG, 2015p: 1; JW, 2015: 99; AG, 2015jw: 14),

3.4 Municipal performance management and M&E systems

Performance management (PM) is, according to Shafritz and Russell (2000: 273), the systematic integration of an organisation's efforts to achieve its objectives through developing work expectations and goals, delivering and receiving performance feedback, identifying development needs, and evaluating performance. The primary responsible person is an organisational leader. The difference between the PM and mere management is its focus and emphasis on systemic integration. Performance management has six components, which include the specification of clear and

[1] Please note that these AG figures of material impairments for Joburg Water and Pikitup are exactly the same (R3 874 196 000). It is possible that there might be mistakes either from the AG or Picktup (it is sure that it is not Joburg Water mistake as it attached the original report of AG). **In Appendix S, both AG reports are attached.**

measurable organisational objectives, systematic performance measures and indicators, performance appraisal, performance incentives, linkage between resources to management or budget cycle, and regular review and assessment (Shafritz & Russell, 2000: 273-4). The PM of CoJ encompasses the planning, monitoring, measurement and reporting of performance at various levels (CoJ, 2007). According to Jonas (2011: 40), a PMS is in fact the M&E tool for the implementation of the Integrated Development Plan (IDP). Although the focus area of this research is the M&E system of municipalities, without studying the PMS it would not be possible to understand the M&E. It is the prime reason for studying the Performance management system (PMS).

One of the benefits the PM and M&E systems provides to municipalities is improvement of service delivery by means of improving communication, setting targets, comparisons, a focus on service and access to a directory of best practices, and acquiring abilities to alter services easily to adjust to the current situation as soon as the changes occurred (GFOA, 2007: 5). Performance management (PM) is defined by the Department of Provincial and Local Government Manual (DPLG, 2003:12) as a strategic approach to management, which equips leaders, managers, employees and stakeholders at different levels with a set of tools and techniques to regularly plan, continuously monitor, periodically measure and review the performance of the organisation in terms of indicators and targets for efficiency, effectiveness and impact. By these means, a PMS can ensure all leaders, managers and individuals in a municipality are held accountable for their actions, which should bring about improved service delivery. The 1998 White Paper on Local Government (RSA, 1998a) acknowledges that PM is critical in ensuring that development plans are implemented; resources are used efficiently and optimally; and ensuring that the desired effect is obtained through proper application.

3.4.1 Legislative and regulatory framework for PM and M&E systems

The PM and M&E at local government sphere is guided and instilled by the 1998 White Paper on Local Government, the Local Government: Municipal Structures Act, 1998 (Act 117 of 1998) (hereafter will be referred to as the Municipal Structures Act), the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) (hereafter referred to as the Municipal Systems Act, 2000), The Local Government: Municipal Planning and Performance Management Regulations, 2001 (hereafter referred to as the PM Regulations), and the Local Government: Municipal Finance Management Act,

2003 (MFMA). The White Paper on Local Government (RSA, 1998: Section B, part 3) identifies PM as one of three tools for realising a developmental local government. The other two tools are integrated development planning (IDP) and budgeting, and partnerships with local citizens and partners. The Municipal Structures Act (Act 117, RSA, 1998) aims to institute a PMS in local government that will facilitate access of service information to communities and thereby empower them to demand better services and thereby cause municipalities to be more accountable (DPLG, 2001:8). Section 19 of the Municipal Structures Act stipulates that a municipality must annually review its overall performance.

The Municipal Systems Act is the most important and comprehensive legislation for local government PM and M&E systems. It not only provides the policy framework for the implementation of the PMS, and also provides the most comprehensive national framework for M&E in local authorities. It also provides a most wide ranging set of guidelines to enable local authorities to establish and implement a PMS that is commensurate with its resources, and in line with the priorities, objectives, indicators and targets contained in its integrated development plan. It aims to promote a culture of PM among its political structures, political office bearers and councillors and in its administration, and to administer its affairs in an economical, effective, efficient and accountable manner.

The core components of the PMS are outlined in its Section 41. These components set appropriate performance indicators to measure performance outcomes and impact, specific, measurable targets, regular monitoring of performance, measurement and review of performance at least once a year, ways to improve performance, and an established process of regular reporting. Section 5 of the Act "requires municipalities to regularly disclose information regarding the affairs of the municipality to the public", while section 11 compels municipalities to monitor "the impact and effectiveness of its policies, programmes and plans" (Atkinson & Wellman 2003: 4). Chapter 6 of the Municipal Systems Act (RSA 2000: Sections 38 and 41) requires municipalities to develop a PMS, set targets, monitor and review performance based on indicators linked to their IDP, publish an annual report on performance for the councillors, staff, the public and other spheres of government, incorporate and report on a set of general indicators prescribed nationally by the Minister responsible for local government, conduct an internal audit on performance

before tabling the report, involve communities in setting indicators and targets and in reviewing municipal objectives, performance, expenditure, budget and timelines.

Most importantly, the Municipal Systems Act compels municipalities to make sure their PMS functions as an early warning system of underperformance so that it can be addressed through proactive and timely interventions, and also stipulates to include requirements for external oversight and actions if found to be non-compliant. The 2001 PM Regulations provides additional guidelines for the implementation of the Municipal Systems Act, 2000. The regulations state that, in developing the PMS, a municipality must ensure that the system "complies with all the requirements set out in the Act; demonstrates how it is to operate and be managed from the planning stage up to the stages of performance review and reporting; clarifies the roles and responsibilities of each role-player, including the local community, in the functioning of the system; clarifies the processes of implementing the system within the framework of the integrated development planning process; determines the frequency of reporting and the lines of accountability for performance; relates to the municipality's employee PM processes; and provides for the procedure by which the system is linked to the municipality's integrated development planning (IDP) processes" (RSA 2000: 8-9).

The Municipal Finance Management Act (MFMA) does not refer directly to PMS. However, it provides the framework for good financial management practices in local authorities. The overall performance of the municipality depends on the financial practices and performance of the municipality, especially in terms of ensuring the effectiveness, efficiency and economy of all aspects of service delivery and municipal management. The MFMA also provides for a number of budgetary requirements for linking the budget of the municipality to the IDP (and thereby also to the PMS) as well as for assigning responsibility and accountability of financial performance to both managers and political representatives.

3.4.2 The PM and M&E systems of the City of Johannesburg

The City of Johannesburg introduced a Performance Management System (PMS) in 2003. The PMS has eight objectives: first, to ensure compatibility of the City Scorecard or Service Delivery and Budget Implementation Plans (SDBIP) with the Integrated Development Plan (IDP). political priorities; second, to develop viable programmes to achieve targets and political priorities; third, to establish linkages

between planning and budgeting; fourth, design performance measurement systems that will improve performance; fifth, to ensure increased accountability throughout all sectors of the municipalities; six, to facilitate learning and development of employees; seven, to provide political leadership and management with warnings about potential problems and crises; and eight, to instill a performance-oriented culture across the City (CoJ, 2009: 6; Municipal Performance Management Framework). The PMS of the City of Johannesburg has five phases: (1) Performance planning, (2) performance executing; (3) performance reviews and reporting; (4) performance auditing, evaluation and moderation phase; and (5) managing the outcomes of the performance management process.

3.4.2.1 Performance planning

In the performance planning phase, supervisors and subordinates consult and identify the performance objectives at the individual and organisational levels. In order to enhance the performance of the municipality as a whole, it is imperative to have consensus between the supervisor and subordinates on the performance objectives.

3.4.2.2 Performance executing

The performance executing phrase has three steps: Scorecard implementation, performance monitoring and coaching. Scorecard implementation and performance monitoring take place throughout the cycle and are both linked structurally to groups as well as individual performance. Performance coaching occurs throughout the cycle but is only related to individual performance.

Scorecard Implementation: The City's PMS uses the Balanced Scorecard approach (CoJ, 2007: 34). The Balanced Scorecard is implemented at four levels: group level (city scorecard), sector level, departmental or municipality entity level, and individual level. At the group level, the City Scorecard is used. It is called Service Delivery and Budget Implementation Plans (SDBIP). It identifies the city-wide performance objectives and strategic planning process, based on the Growth and Development Strategy and the Integrated Development Plan (IDP). Using the City Scorecard, the attainment of the overall objectives is monitored and measured. The responsible persons for conducting performance management at the group level (through the City Scorecard) are the City Manager, Executive Directors and Managing Directors/Chief Executive Officers (CoJ, 2009).

Based on the Citywide Scorecard (SDBIP) and the five year IDP, the sector plans, objectives and measures are developed by sector leaders and sector members. From the sector plans, objectives and measures, the sector scorecards are developed and adopted. Developing sector plans require collaboration and cooperation among all key stakeholders, so that each sector plan contributes to the implementation of the five year IDP articulated annually in the (SDBIP). The Infrastructure and Services Sector (ISS) scorecards are developed together by all related municipal entities—Johannesburg Water, City Power, Pikitup—and the Infrastructure and Services Department in order to align the activities of each sector with those of the others. The draft of the sector scorecard has to be submitted to the City Manager. After being accepted by the City Manager, it goes to the Johannesburg Performance Audit Committee (JPAC). The JPAC provides inputs and feedback comments about the draft sector score. After revising according to JPAC comments and inputs, the scorecard is submitted to the Mayoral Committee to be accepted. The members of Mayoral Committee (as political heads of the sector) are held accountable for sector performance and oversee its implementation.

Based on the sector scorecard, specific sector priorities are established and these are implemented by the core departments and municipal entities within their areas of jurisdiction. These priorities are then transformed into Strategic Performance Objectives (SPOs). These objectives (SPOs) are documented by Executive Directors and the Managing Directors or Chief Executive Officers of the core departments and municipal entities. Based on these SPOs, Functional Performance Objectives (FPOs) are developed for all other employees (CoJ, 2009: 19). Derived from FPOs, the Individual Scorecards are established for personnel at all levels of the hierarchy including the strategic decision-makers of core departments and municipal entities. (CoJ, 2009: 19). Monitoring of individual performance is conducted all year around. The City Manager is responsible for monitoring the performance of the managers directly accountable to her/ him. The Board Chairpersons and relevant MMC is responsible for monitoring the performance of the MDs/ CEOs. The Central Strategy Unit (CSU) supports the City Manager in the monitoring process, and the Shareholder Unit (SHU) supports Board Chairpersons and the relevant Member of the Mayoral Committee (MMC) in their monitoring process.

Performance monitoring: Performance monitoring takes place at two levels: the group level and the individual level. Monitoring is conducted against the implementation of

the IDP, the City scorecard, the sector scorecards, the departmental or municipal entity business plans and individual scorecards. The aim of monitoring is to continually track performance and improve performance through feedback and capacity development. Data and information are gathered from reports and data and information sources related to the implementation of Key Performance Indicators (KPIs), strategic performance objectives (SPOs), Functional Performance Objectives (FPOs) during the implementation process. There are two kinds of performance monitoring: Group performance monitoring and individual performance monitoring.

Group performance monitoring checks the implementation levels of the IDP, SDBIP, Sector and the Municipal/Departmental business plan, and sector scorecards. Data and information are collected by the various individuals and committees at each level of group performance. The SHU (Shareholder Unit), Sector leads, EDs (Executive Director) and MDs. Sector members collect information on implementation of the scorecard. Then, sector leads prepare, with the support of the various sector members, and submit a progress report to the Committee. Sector leads, EDs (Executive Director) and MDs collect, generate, analyse, prepare and share monitoring information within the sector. The SHU (Shareholder Unit) collects and analyses data and information from the municipal entities and departments through the sector lead. The Municipal Performance Audit Committee (MPAC) and Section 79 Committees oversee the monitoring process.

Individual performance is monitored all year round, with an aim to review and provide feedback on performance progress, and to identify individual performance development needs as well as corrective measures. Monitoring is undertaken against the implementation of individual scorecards. With the support of the CSU, the City Manager monitors the performance of the managers directly accountable to her/ him. With the support of the SHU, the Board Chairpersons and relevant MMC monitor the performance of the MDs/ CEOs. The respective EDs and MDs/ CEOs collect and analyse performance information and evidence for all levels of performance achievements, and then, submit a record of review results, together with evidence of performance, to the Performance Audit Committee and the Performance Evaluation Panel (PEP) respectively.

Performance monitoring: Performance coaching takes place at an individual level. Its aim is to get individual employees to understand how well he or she is doing.

Coaching sections are held in October and April. The City Manager is responsible for coaching the sector leads and sector members who are directly accountable to him. The Board Chairperson is responsible for coaching MDs/ CEOs of municipal entities. Line managers are responsible for coaching their subordinates. During the coaching process, a review of progress is made against the Key Performance Areas and associated KPIs and core competency requirements (CCR) in the employee's performance scorecard; challenges that employees face are identified and a plan of action to address them are agreed; training and development needs are identified and plans to address these development needs are formulated, and also good performances are acknowledged and discussed.

3.4.2.3 Performance reviews and reporting

The objective of the performance reviews is to establish the extent to which the desired outcomes have been achieved, by way of assessing the level of performance against scorecards. Performance reviews and reporting take place at the various levels such as at the levels of the IDP, City Scorecard, Sector, Business plans and individual performance management. At the individual level, it takes place through the one on ones. But at the ME (municipal entities) level it takes place, formally, through the MMC quarterlies. Performance reviews are not conducted at a Departmental level. Group wide performance and the performance of the Core Departments is reviewed by the CSU. Performance reviews are undertaken at two levels: at the group level and at the individual level. After reviewing the performances, reports are submitted to reviewing committees and/or persons who check and analyse the performance results against relevant performance information.

Group Performance Review: Group performance review is conducted at the overarching levels of the city, the sectors and the various departments and municipal entities. It involves reviewing performance reports and documenting evidence to establish whether group priorities have been achieved in line with the IDP, SDBIP, Sector plans and municipal entity/Departmental business plans. Reviews take place bi-annually and quarterly. The JPAC reviews sector performance on a quarterly basis. The committee reviews the performance of the sector against the sector scorecard. The CSU is responsible for preparing and submitting its own report on the performance of the sector including critical challenges and an assessment of how the performance management system has been implemented within the sector. The JRAS is responsible for auditing sector performance on a quarterly basis and

submitting the report to the Committee and the Performance Audit Committee (JPAC). The SHU is responsible for providing inputs on the performance of the relevant entities that are part of that sector. Sector leads are responsible for consolidating, preparing and presenting the performance review report.

Individual Performance Review: Individual performance reviews involve assessing individual performance reports and evidence to establish whether individual scorecard priorities have been achieved according to the Sector plans and municipal entity or Departmental business plans. Responsible persons to review individual performance are MDs/CEOs and EDs. Four performance review sessions are conducted: Two formal sessions (in January and July) and two informal sessions (in October and April).

3.4.2.4 Performance auditing and evaluation

Performance auditing and performance evaluation are different processes conducted by two different committees. Performance auditing conducted by the Performance Audit Committee (JPAC) which is comprised of the Executive Mayor and Central Strategy Unit (CSU), and performance evaluation is conducted by a Performance Evaluation Panel (PEP) which is composed of the City Manager, Board Chairpersons, the Chairperson of the Performance Audit Committee, member of the Mayoral Committee, and a municipal manager from another municipality.

The functions and responsibilities of the JPAC and PEP are different. The JPAC focuses on institutional performance while the PEP on individual performance. The JPAC audits the entire performance management system, reviews the performance of the City (SDBIP), reviews the performance of sectors, and prepares and submits a report to the Performance Evaluation Panel, Mayoral Committee and the Council. The PEP evaluates the performance of the City Manager, evaluates the performance of all managers directly accountable to the City Manager, evaluates the performance of all Managing Directors and Chief Executive Officers of the Municipal Entities, moderates the outcomes of individual performance review sessions, recommends individual performance rewards in line with the City's reward framework, and submits recommendations to the Mayoral Committee (CoJ, 2009: 40).

Performance appraisals are sent to the Performance Audit Committee. The Audit Committee assesses whether or not the PMS is operational, it complies with the

Municipal Systems Act of 2000, and its measures are reliable. After auditing and evaluation, recommendations are provided. Performance evaluations are conducted at the end of the performance cycle. Individual performance is appraised against the key performance indicators reflected in the sector scorecards. The performances of the City Manager and all managers are evaluated by two panels annually and performance scores are submitted to the Mayoral Committee and the Council for approval.

3.4.2.5 Managing the outcomes of the performance management process

The last stage of the PMS is managing performance outcomes, which come in three forms: financial or non-financial rewards (to employees who perform well), performance development and support; and incapacity procedures (to employees whose performances are poor). Performance-related rewards are given to reward the good performance of employees. The amount of reward depends on the performance of the City as a whole group. Performance bonuses are between 5 per cent to 14 per cent (of the all-inclusive remuneration package) for all employees including MDs, CEOs and Section 57 employees (CoJ, 2009: 52).

Support and corrective measures are taken to manage the poor performance of employees. Systematic remedial or developmental support, adequate guidance and assistance are provided to poor performing employees to improve their performance. If employees fail to improve their performance after appropriate support has been provided, their employment contracts are terminated.

3.4.3 The weaknesses identified in PMS in local government

Due to these intensive and comprehensive legal directives mentioned in section 3.4.1, it should be assumed that the PMS of local government has already been established in many municipalities. However, Koelble and Siddle (2013) discovered that there is a vast divergence between constitutional and legal mandates and the actual practice of municipalities. Only a small fraction of their sample, i.e. only 2 of 37 municipalities, came close to actually performing all of the 38 functions required of municipalities in the Constitution. Although the Constitution and subsequent legislation provide local government with substantial powers and functions, in practice large numbers of municipalities in their sample are neither exercising nor performing using these powers and functions (Koelble & Siddle, 2013).

A survey, which is unrepresentative, conducted by Rabie (2011: 189) at the Institute for Municipal Finance Officers (IMFO) 2005 conference revealed that 44 of the 52 municipalities represented in the survey have a PMS in place that assesses performance against the IDP. In most cases (32 of the 52 responses) the PMS is based on the balanced scorecard model. Various studies, researches and even government leadership (Rabie, 2011; Phalatse, 2010; Jonas, 2011, Carrim, 2009) discovered that the main problems experienced at local government level with the PMSs are lack of knowledge, skills and understanding of the system by various role-players; fear of victimisation leading to lack of buy-in; inappropriate targets and key performance indicators; lack of sharing, the administrative burden of managing performance information; political interference; lack of linking individual performance to organisational performance (and understanding the differences between the two systems); lack of incentive in PM and M&E systems; and weak financial management and failure to meet reporting deadlines.

It is important to note that ineffective measures will not lead to improvement. Moreover, having performance measures and even tracking the measures do not mean anything unless management uses them to evaluate performance (Moss, 2007). As Berry (1991), Johnston (1999) and Moss (2007) conclude, ineffective PM and M&E systems would neither improve service delivery performance nor customer service quality. The following section will discuss the essential characteristics of an EWS that are currently lacking in the PM and M&E systems but need to be integrated into them in order for these systems to be able to serve as EWSs and, in turn, to be able to alert the responsible stakeholders and persons about the possible problems and difficulties in the service delivery processes.

3.4.4 The weaknesses identified in PMS in CoJ

In his study of the Balanced Scorecard (BS) of the City of Johannesburg during three financial years (2011/12, 2012/13, 2013/14), Mbala (2016: 176-7) reveals that the Performance Management Policy of the City provides a selection of performance measures and targets, but the objectives settings and strategic initiatives were not integrated within it. He also states that the implementation of the BSC during these three financial years did not comply with the adopted framework. The developed scorecard did not have objectives and initiatives. While different components of service delivery have measures and targets, they are not in alignment with one

another. Moreover, the City set a large number of targets which made it difficult to determine the status of the target achievement (Mbala, 2016: 176-7).

One of the findings on the City's PMS is the lack of involvement of residents and communities in formulating and implementing the PMS. Although employees are aware of the municipality's mission statement and its purposes, residents do not know them. While the Growth and Development Strategy and the IDP are clearly outlined, the daily operations of the municipality are not related to them. Moreover, the strategic performance outcomes and KPIs are formulated by the municipality but there is no consultation with residents. Employees at the lower levels of management are also not involved in the development of KPIs.

It is also revealed that performance objectives are set by managers and subordinates together, but both of them are not involved in the evaluation of the municipal performance. Furthermore, Radebe (2013: 266) discovers that "the evaluation of the municipality's performance is in fact not carried out". In addition, it is noted that the PMS is only applied to officials in higher levels of the municipality. Training regarding the PMS is provided to managers and subordinates. So that they understand the PMS and how it functions. But no training is provided on how to conduct performance reviews. Moreover, they lack the capacity to work effectively with the Balance Scorecard. Consequently, employees at the PMS make inaccurate measurement of employees' performance, and unjustified performance rewards are given to employees, mostly to top managers. Because of lack of skills and understanding, there is a negative attitude among employees to the Balanced Scorecard in particular and the PMS in general.

Radebe (2013: 267) also states that the current IT system and infrastructure used in the CoJ for the PMS is not easy for employees. He observes that most of the time computers as well as the network are not functional. Moreover, employees do not have the skills to capture key performance indicators. For employees, it is "a daunting task to acquire data in order to calculate key performance indicators" (Radebe, 2013: 267). These situations further reinforce the negative attitude of employees on the implementation of the PMS. Another weakness Radebe (2013) finds in the CoJ's PMS is poor coordination and lack of alignment among sectors and departments in creating KPIs, thus creating "silos" in the municipality. The very same key performance areas

are sometime out of tune with the municipality's Growth and Development Strategy, IDP and overall municipality objectives.

Furthermore, when KPIs are developed, the municipality does not pay due consideration of available resources. KPIs are sometime pitched at a high level that is beyond employees' ability. In addition, the PMS has no relationship or association with the provision of service delivery such as the removal of garbage, fixing of potholes, maintenance of street lights, maintenance of lawns, sidewalks and parks, and maintenance of the sewage system. Another limitation in the CoJ's PMS is its lack of communication about performance results with communities who are affected by the PMS. Radebe (2013) also observes that the CoJ's PMS is not performance-oriented and the performance culture seems to be lacking in the implementation of PMS.

3.4.5 Elements of EWS lacking in the current PM and M&E Systems

The primary question of this research is to what extent the current PM and M&E systems of municipalities have the characteristics and components of an EWS. Basher (2006: 2170) argues that to be effective and complete, an early warning system needs to comprise all four interacting elements, namely: (1) risk knowledge, (2) monitoring and warning system service, (3) dissemination and communication and (4) response capability (Basher, 2006: 2168). Failure in any one of these elements can mean failure of the whole early warning system (UN, 2006: v). Based on researches and literature, the following sections discuss the weaknesses found in current municipal PM and M&E systems. Although there are several important weaknesses in the current PM and M&E systems of local government, only three weaknesses that are directly related to the components of an EWS.

3.4.2.1 Lack of 'risk knowledge' database

Risk knowledge or simply a list or a record of problems and challenges that municipalities face and address in their service delivery processes is an integral part of any EWS. According to UNISDR (2005), past events have to be studied and improvements have to be made to the EWS. Municipalities have not developed a list of their municipal service delivery problems and challenges. Even the government (RSA, 2010) admits that it has not done sufficient work on developing detailed indicators and targets for service delivery quality. Performance targets and key performance indicators (KPI) of current M&E systems of municipalities are

inappropriate and data verification issues can still be problematic. Engela and Ajam (2010: 18) state that systems of data verification and auditing of nonfinancial performance information need to be put in place. Where information systems are in place, the emphasis often tends to be on data collection rather than analysis.

Even when information and data are collected, it is often riddled with technical errors, including poorly formulated or defined indicators; non-agreement between the indicator's unit of measurement and the unit of measurement of the target; and over-focus on inputs and outputs, with few process and almost no outcome indicators (Rabie, 2011). Furthermore, often the same information and data are recorded or documented in different versions, and baseline data of departments are also different from one another. Often, there are no central data repositories within departments. Different programme areas frequently are not even aware of what data are available within the department itself (Engela & Ajam, 2010).

3.5.2.2 Lack of systematic warning mechanism and information sharing

Basher (2006) argues that although collecting, monitoring and detecting are critical parts of an EWS, it is in the communication and preparedness elements where failures of an EWS typically resulted. According to UNISDR (2005), major players and stakeholders have to meet regularly and consult, risk scenarios are constructed and reviewed, specific responsibilities are agreed, information has to be disseminated and staff have to be trained. In the similar vein, Hamilton (1999) warns that getting warning information or predictions alone are not useful unless they are translated into action plans, which the municipalities communicate to the public and also that the public understands them.

All Municipalities generally have monitoring systems, but information collected by M&E systems are not completed. More importantly, there is no a systematic warning mechanism in the M&E systems. In addition, municipalities as well as individual departments do not share their information. According to Engela and Ajam (2010: 25), "civil servants are uneasy about sharing data not only between departments but even between programme areas within the same department. In many instances, custodians of data guard their information and, in some instances, the 'culture' has become so entrenched that governmental departments are forced to buy data that should be readily available from a sister department.

3.5.2.3 Weak response capability

Response capability is part of the competence and capability of municipalities. Response capability means mastering addressing and solving problems and challenges that municipalities regularly or frequently encounter in their service delivery processes. In order to be able to solve these problems and challenges, municipalities have to record, document and understand all common problems and challenges they experienced in the past, i.e, establishing risk knowledge. Before developing response capability, risk knowledge or a database of common problems and challenges has to be constructed. Response capability is not the same as general skills and capacity to perform and implement municipal tasks. It is a special kind of knowledge and capacity to solve the problems and challenges of municipal service delivery processes. As discussed above, municipalities are still struggling with capacity and skill shortage issues. Without sufficient capability to address or solve problems, just knowing early warning signs will not be useful.

3.5 Factors affecting municipal service delivery performance

Literature on local government and municipal service delivery performance discuss various kinds of problems. These problems are at macro level and generally are the underlying causes of day to day practical problems that municipal service delivery teams face and have to overcome. On the other hand, this study tries to explore and understand problems that are at micro level and that staff and technicians of municipalities and municipal owned entities (MOE) face and have to address during the delivery of services to community members. Common problems and difficulties that employees and staff of MOEs face and have to overcome during their work are different from the problems and issues discussed in literature, academic journal articles and researches. However, in order to understand these small scale problems, it is necessary to explore the macro-level problems discussed in the literature and researches.

The problems with municipal service delivery are multifaceted and interrelated. Although some factors and problems are within the control of municipalities, there are still many factors that are external (CoGTA, 2015, 2014 & 2009; Carrim, 2009; Stanton, 2009). This research does not explore or examine external factors, but investigates and discusses internal factors and problems.

According to Devarajan and Reinikka (2004), as discussed in section 2.4.4, there are at least four roots of the service delivery problem: resource misallocation, weak incentive, expenditure leakages, and demand side failure. Based on these "four roots of service delivery problems", this study selected three factors—resource constraints, poor public participation and non-compliance with rules and regulations—as the most responsible for the poor municipal service delivery performance.

The reason for selecting these factors out of four root causes is because root causes are in fact results of these selected three factors. For example, resource misallocation is a result of these selected three factors—resource constraints as a form of skills shortage, poor public participation. Similarly, weak incentives and expenditure leakages happen because of non-compliance with rules and regulation. Expenditure leakages mean municipal expenditures and costs are spent fruitlessly and wastefully. Such unauthorised, irregular and fruitless and wasteful expenditure can be understood as a result of non-compliance with rules and regulations, which is reinforced by a lack of consequences for transgression although the Municipal Finance Management Act (MFMA) degrees that these transgressions must be investigated. AG (2016) reports that 45% of municipalities (in 2015-16; which is 47% in 2013-14) had not investigated these transgressions. Demand side failure is related to poor public participation. In the following sections on these three factors, their relationships are elaborated (Table 3.3).

Table 3.3 Relationship between four roots of service delivery problem and selected three factors

Four roots of service delivery problem (Devarajan & Reinikka 2004)	Selected three factors
resource misallocation	• resource constraints as a form of skills shortage • poor public participation (in planning)
weak incentive	• non-compliance with rules and regulations (weak accountability)
expenditure leakages	• non-compliance with rules and regulations (weak accountability)
demand side failure	• poor public participation

3.5.1 Resource constraints

Resource is a collective word that encompasses financial sources, capacity and skills. Among these, it is capacity constraint that most negatively affects municipal service

delivery. In order to delivery in the most competent, efficient and effective, as well as accountable manner, municipalities need the right staff with the right skills. Competence and capacity are fundamental requisites for effective service delivery by any organisation to perform its assigned functions. For municipalities, capacity and competence mean having the ability to interpret policies and legislation, to develop credible IDP (integrated development planning), to run and control mechanisms for revenue and debt collection, to manage finances, to mobilise and plan resources, to implement and manage service delivery processes, and to engage with and communicate with communities (Makananisa, 2011; Nkoana, 2007).

Skills-shortage is a high profile issue and a much debated matter. It is not a new problem. In his 2006 State of the Nation address, Former President, Thabo Mbeki (2006), stressed the fact that skills shortage was amongst the most critical issues facing South Africa and required urgent attention. Over ten years later, although a series of programmes had been implemented, the problem of skills shortage had not been improved.

In 2007, the South African Institution of Civil Engineering (SAICE) conducted a skills survey of all 283 municipalities and found that there were 83 municipalities that had no civil engineers, technologists or technicians, another 48 municipalities employed only one civil technician. In municipalities with civil engineering staff, 35% of professional positions were vacant. The SAICE study cited several reasons for this shortfall, including high vacancy rates, which were often attributed to budget constraints, “the inefficient deployment” of civil engineers and “the use of unqualified and inexperienced personnel in positions requiring technical ability” (SAICE, 2011: 11). According to Stats SA report (2016), the highest municipal vacancy rates were recorded in the areas of environmental protection (23%), electricity (20%), road transport (18%), and wastewater management (16%). In Gauteng local government, the Chief Financial Officers (CFOs) of 20% of municipalities and 42% of municipal entities did not have the necessary skills; and in 70 % of municipalities and 17% of municipal entities, officials in key positions did not have the minimum competencies and skills.

The skills shortage issue is just one critical facet of the capacity constraint issue, so is financial constraints. Besides the skills shortage, several studies (AG, 2016; CoGTA, 2014; Makananisa, 2011) discovered that there was also a mismatch between

incumbents' posts, job descriptions and the required qualifications of municipal staff and employees. On the other hand, skilled personnel still might lack resources or drive or motivation or the correct attitude to perform their tasks and responsibilities effectively. Moreover, there was also a discussion on the issue of councillors' lack of understanding of their roles and responsibilities and municipalities' lack of clear norms and standards to guide the appointment of staff (AG, 2016; Makanasia 2011; Opperman, 2007; Hicks, 2006). According to 2014 CoGTA presentation at the Parliamentary Monitoring Group (PMG) on 16 July 2014, municipalities lack various management skills, that include contract and project management skills, financial management skills, supply chain management skills and infrastructure asset management skills (PMG, 2014; Atkinson, 2004). As a result, there is often no alignment between projects run by sector departments and municipalities, and project implementations are delayed (PMG, 2014).

Atkinson (2004) argues that municipal managers do not manage, for four reasons. First reason is that managers lack management skills and do not know how to management. Many senior officials, municipal managers and councils also do not know how to evaluate staff performance. Second reason is that they lack experience in project or programme management and therefore have to rely on consultants. Third reason is that they do not need to manage, either because councillors manage their departments on their behalf, or because the trade unions have become the de facto manager, or because they do not care, or because they are spending all their time assisting under-skilled subordinates. Fourth reason is lack of consequences for poor or non-existent management. Managers do not have to manage and nothing bad will happen whether they do or they don't.

What is worth noting here is Elcock's (1994) discussion, who states that people become councillors by winning an election and the attainment of office may or may not be related to their abilities as policy-makers or managers. One explanation for skills shortage is neo-patrimonial politics in the ruling party, ANC, whereby unqualified supporters of the ruling party are appointed to positions within councils (Lodge, 2014; Beresford, 2016). Similarly, the Centre for Development and Enterprise (CDE) (2007: 55) argues that one of the causes of skills shortage is of bad appointments compounded by "incompetent human resources administration, breakdown of political leadership, political favouritism, nepotism, and misapplied racial transformation".

Concerning financial constraints, Nkwinika (2010) describes two sources of municipal financial constraints—weak tax-base and municipal weak ability to collect revenue. Municipalities could not raise revenue because of the lack of a sufficient tax base in their municipalities. However, even when tax-bases exist, municipalities lack the ability to collect revenue. The local government financial regime is collectively still fragile though many key elements of local revenue systems are already in place. Although some municipalities already have sustainable local sources of revenue, some municipalities have a non-existent, or very small, tax base (Nkwinika, 2010).

Secondly, local governance as a whole is struggling to raise enough finance to deliver on its mandates. Pycroft (2000) and Stanton (2009) note that serious financial constraint on municipalities is attributed to the non-payment by community members for the municipal services they use. Pycroft (2000) continues that it is also a result of the failure of municipalities to implement appropriate cost-recovery techniques, to render monthly accounts in the cases of municipalities with inexperienced staff, and to pursue defaulters although there is adequate legal machinery for cost recovery that includes legal termination of services such as water and electricity.

Just a few municipalities are able to raise enough revenue to fund their budgets while the majority have to depend on inter-governmental grants. Again there are two interlinked factors for the municipalities' inability to raise enough revenue. The first factor is the weak billing and collection systems in municipalities and wasteful expenditures. Stanton (2009) and Koelble and Siddle (2013) discovered that the majority of the 37 municipalities they examined failed to take appropriate steps to collect debts or avoid wasteful expenditures. Wasteful expenditure is a kind of 'expenditure leakage'. It means the financial resources are not efficiently utilised and therefore frontline service providers, where resources are needed, do not receive the resources. Koelble and Siddle (2013) estimate that the avoidable wasteful expenditures amounted to R27 billion.

According to the Auditor General's Consolidated General Report on the Audit Outcomes of Local Government (2016: 17), in the 2014-2015 financial year, municipalities incurred unauthorised expenditure of R15,32 billion, irregular expenditure of R14,75 billion, and fruitless and wasteful expenditure of R1,34 billion. It is rational to argue that if these wasteful expenditures could be eliminated and local

government were able to collect the debts they own, they argue that municipalities would be able to finance their activities properly.

Furthermore, while financial constraint is widely attributed to the poor performance of municipal service delivery, there are several studies (Elcock, 1994; Mcloughlin & Batley, 2012; Devarajan & Reinikka, 2004; World Bank, 2011; Koelble & Siddle, 2013; CoGTA, 2009) all of which argue that financial constraint is not the main factor responsible for the poor municipal service delivery performance.

While financial constraints are regarded as a factor for weak municipal service delivery and for failure to eradicate infrastructure backlogs on water, sanitation and roads services, a CoGTA study (2009) points out cases of under-spending, a degree of wastage, inappropriate usage of funds, and poor oversight. In his annual report to Parliament tabled on 3 August 2012, the director-general of the department of CoGTA, Elroy Africa (interviewed by Hartley, 2012), states that R8,7b was allocated to local government for infrastructure grants projects, and was transferred to the municipalities concerned. But 4% of all municipalities failed to spend any of their infrastructure grants at all, while 15% spent less than half of those allocations, thus R2,163b was left unspent. According to AG MFMA 2014/15 Report, in 2014/15 financial year, municipalities did not spend R2b (12%) of municipal infrastructure grant. According to Muthotho Sigidi, Deputy Director General of CoGTA, in 2010/11, every year there is an increase of R2 billion in the Municipal Infrastructure Grant, but municipalities do not have enough capacity to utilise that amount of money.

Moreover, as of 31 March 2014, aggregate municipal consumer debt was R93.4b (households owe R57.5b, commercial or business owe R19.3b and other debtors owe R12.5b). It is because municipalities were not able to collect them. Moreover, outstanding debt over 90 days owed to municipalities were R73.6b, and outstanding debt under 30 days were R12.4b. Gauteng municipalities alone have R40.9b outstanding debt over 90 days (PMG, 2014).

The Development Bank of Southern Africa (DBSA) (2008) stated that municipal borrowing is far lower than its capacity to borrow, partly because of a non-borrowing policy by some municipalities such as Mangaung, and of over-caution by the big municipalities such as Tshwane when it comes to borrowing. The National Treasury and the Financial and Fiscal Commission (FFC) have discussed that municipal under-

spending can be attributed to a lack of proper project planning, ineffective project management, a lack of capacity to manage the Municipal Infrastructure Grant Programme (MIG) funds and the late approval of projects and budgets by council officials. All of this is negatively affecting municipal service delivery (Josie, 2008).

In fact, according to the World Bank (2011: 14-15) "fiscal resources have not been the binding constraint to improved service coverage and quality". It continues that in terms of the financial resources municipalities have South Africa is in an enviable position because of the fiscal space and resources created and targeted to the poor. The World Bank (2011) therefore argues that the challenge is to ensure that public transfers result in better outcomes.

On the other hand, an organisation or a department might have more than enough financial resources at its disposal, it still might have a capacity constraint and lack of effective and systematic planning (CoGTA, 2009; Jackson & Hlahla, 1991). CoGTA (2009) states that although some municipalities keep considerable investment amounts, there are still huge service delivery backlogs. Jackson and Hlahla (1991) identify the relationship between financial constraints and the issues of lack of skills. They argue that, while there is a need to put money into municipal development programmes, there is a lack of capacity to match the skills required to manage the funds. This position is supported by Liebig *et al* (2008), who stated that lack of capacity is mainly due to a severe scarcity of well-educated financial managers and engineers, which could be an effect of low level of pay scale levels in the civil service compared to those of private sector.

It is interesting to note that the skills shortage issue has a negative impact on the community participation. Piper and Chanza (2006) note that ward committee members lack training in municipal processes, the technical details of budgetary, IDP and performance management processes and skills and support are also needed in order for members to engage with the community. Hicks (2006) also points out that municipal officials are often unprepared to engage with ward committees and are unreceptive to participation.

Additionally, there are underlying but under-discussed factors behind the skills-shortage issue. These are under-utilisation of the skilled labour resources because of the affirmative action (AA) policy and a rigid labour market environment. Some studies

(Jeffery,2015; Turton, 2015; Chipkin, 2011; Solidarity Research Institute, 2011; Joubert & Calldo, 2008) blame the effects of affirmative action for the shortage of skills and incompetency of public servants. However, in my view the true culprit is not affirmative action per se, which is in fact a necessary approach to empower and integrate historically disadvantaged groups (HDGs) or individuals (HDIs) into the mainstream workforces, but implementing and using it as an excuse for guise for nepotism and cronyism. What affirmation action means is when two candidates are equally qualified for a single position, a person who is from HDGs will be appointed for that position. Moreover, providing educational and training opportunities for HDGs or HDIs is a critical part of a policy, planning and implementation of affirmation action.

Similarly, while studies (CoGTA, 2009; Cameron, 2012) discussed cadre deployment, gatekeeper politics and neo-patrimonial politics in the ruling party, ANC, whereby unqualified supporters of the ruling party are appointed to positions within councils (Beresford, 2015; Ndletyana, 2015; Marchant, 2015; Lodge, 2014; Ndletyana, Makhalemele & Mathekga, 2013) as underlying factors affecting not only the performance of municipalities but also the working relationship between the political components and the administration parts of municipalities. It is important to realise that cadre deployment is not only common to South Africa's democracy, but also practised in most of the old democracies of the world. And cadre deployment per se is not a threat to performance as long as the cadres deployed are capable and competent (Twala, 2014; Ndletyana, Makhalemele & Mathekga, 2013; De Waal 2012). For example, cadre deployment has been used effectively in China (Lu, 2014; Rolandsen, 2012) and Singapore (Lee, 2000). It should be argued that comparing SA to Singapore is like "comparing apples with pears", but it is not the case. At the early beginning of Singapore's development process, its situation was not so different to that of SA. At that time, Singapore was also rife with corruption, and inefficient and ineffective public service. The ways taxies in Singapore drove and disregarded the traffic rules at that time, in the 1950s and 1960s, were almost like those of Joburg taxis. Lee (2000), who is the first Prime Minister of Singapore and who transformed Singapore from Third World status into Frist World also talked about how his government transformed Singapore Taxi industries.

What causes the shortage of skills and lack of competency and professionalism in the public service is more concerned with nepotism and cronyism as well as the lack of strict human resource management systems that can hold personnel appointing

procedures accountable and make any appointment strictly merit-based (Jolobe, 2014; CDE, 2007). In the words of the Centre for Development and Enterprise (CDE) (2007: 55) skills shortage are results "of incompetent human resources administration, political favouritism, nepotism, and misapplied racial transformation".

It is however critical to heed the argument of Mcloughlin and Batley (2012) who argue that "resources alone do not determine outcomes on the ground". It is politics that determines service delivery performance. Similarly, Elcock (1994: 146) also argues that "the quality of service may be improved within a static or declining budget by providing more cost-effective services or by developing better relationships with clients". Furthermore, Devarajan and Reinikka (2004) also argue that even if governments provide enough resources, the service delivery performance still could be of low quality and poor if either of these resources are used for the wrong purpose or if service providers such as municipalities do not have the incentive to deliver services to communities.

3.5.2 Community participation

The second root of service delivery problems is "demand-side failure", which is caused by the community's unawareness of services that they are entitled to. However, for this research the meaning of "demand-side failure" is wider than a lack of community' awareness of service they are entitled to as stated by Devarajan and Reinikka (2004). Since Involvement in the governance process is a legislative imperative of citizens (Moodley, 2007), "demand-side failure" also means a community's unawareness of their responsibility as well as their duty to participate, engage and work with municipalities in creating development plans (Integrated Development Plan, IDP), prioritising the community's needs, preparing and implementing municipal policies and processes, finding solutions and addressing problems and challenges encountered among the municipal service delivery processes, and to hold municipalities as well as municipal entities accountable by demanding answers to their questions and communicating with them about all municipal matters and issues.

The Municipal Systems Act (2000) requires municipalities to work together with all stakeholders, such as community members, to develop the IDP and a PMS that is suitable for their own circumstances. Moreover, the Department of Planning and Local Government (DPLG) (2001) also states that all stakeholders have different roles in

developing, implementing and using the PMS. In the same vein, the Monitoring and Evaluation Framework of the City of Johannesburg (CoJ) acknowledges and motivates the necessity and importance of public participation by not only stating it as “a cornerstone of local government practice” but also stresses the necessity of creating opportunities for the community to be involved in municipal processes of planning and delivering services (CoJ, 2012: 67). However, public participation remains as one of the greatest challenges to local government.

Since running local government is a joint process it is the responsibility of both municipalities and communities, there are two sides in the issue of poor community participation in local government in South Africa. However, several studies (Mashamaite & Madzivhandila, 2014; Buccus, 2011; Benit-Gbaffou, 2006; Ababio, 2004; Cameron, 2012) state that communities are also a part of the problem with public participation. Mashamaite and Madzivhandila (2014) argue that community members don’t understand or know their role and responsibility to participate in local government affairs, and the roles of municipalities.

Therefore, communities are not capable of being involved and participating (Ababio, 2004). Moreover, according to Cameron (2002) people are not interested in politics, not necessarily because of barriers imposed by government or politicians, but rather because of their lack of interest. In the 2014 elections, millions of eligible South Africans did not even bother to register as voters (McKinley, 2014), and only 57 per cent of the eligible voting-age population turned out (Schulz-Herzenberg, 2014).

One of the reasons why community members do not participate in the activities and programmes of municipalities is the places where municipal activities and programmes are held are often far from the community members’ homes, thus the community members cannot afford to pay for transport to go there. Another reason is the language used in local government rules and regulations and an IDP that is complicated and difficult for community members to understand (Mashamaite & Madzivhandila, 2014). Moreover, they also feel that their views and voices are not taken into consideration by municipalities, and their development priorities are not reflected in municipal IDPs and their inputs at IDP forums are not adequately integrated into the IDPs (Buccus, 2011: 12). Williams (2006: 197) state that citizens become merely "endorsees of predefined planning programmes". The result is a breakdown of trust in local government and councillors by communities and so-called

service delivery protests (CoGTA, 2014). Therefore, community members feel that there is no point for them in wasting their time attending these meetings (Benit-Gbaffou, 2006 & 2008; Buccus, 2011; Makananisa, 2011; Netswera, 2008).

The reason for the low level of public interest and participation in municipal affairs is according to Buccus (2011) that community members feel powerless and frustrated when they attempt to interact with their councillors because the councillors as well as municipal authorities are not responsive to their concerns and demands. Moreover, Benit-Gbaffou (2006) observes that formal communication channels between communities and municipalities generally are not working. That is why communities choose marching and protests to make their voices and concerns heard (Benit-Gbaffou, 2006). Because people are not participating in municipal activities, for Hicks (2006), community participation in municipal processes is often merely elite participation. People who participate in municipal decision-making are the ones connected to non-governmental organisations and other organised civil society and interest groups that have access to the necessary resources.

At the same time, municipalities are responsible for the poor public participation. In fact, the majority of factors causing community participation in local government to be problematic are from the side of the municipalities. Municipal management such as politicians and officials see the legislative obligation to consult or inform the community as well as to follow and practise PM and M&E systems as something they are forced to do rather than something that will benefit them. For Benit-Gbaffou (2015, 2012 & 2006), one of the primary reasons for poor public participation in local government is dysfunctional local democracy institutions and ward committee structures. She explains that there are two reasons for this dysfunction: first, the limited power of councillors and ward committees; and second, councillors and ward committee members do not have to be accountable or answerable to their voters and communities (they are instead accountable to their party). And there is no interest for councillors to bring issues from the bottom-up, especially when they are challenging policies adopted by the municipal or national government (Benit-Gbaffou, 2012). Benit-Gbaffou (2012, 2008, 2006) and Piper (2009) argue that ward committees appear to be a failure in enabling participation. In the words of Piper (2009: 20) ward committees seem to be “talk shops” with little authority and power for real influence.

There are several explanations for the ineffectiveness of municipal ward committee structures in encouraging and strengthening public participation in municipal affairs and activities. According to Buccus (2011) and Benit-Gbaffou (2012), it is because ward committees lack real capacity or power and therefore they can neither fully present community needs and inputs at municipal development planning processes nor engage meaningfully with communities and civil society in this regard. For Benit-Gbaffou (2015, 2012, 2008, 2006), it is because councillors' power is limited (due to the strong centralisation of governance processes) and they are not empowered enough to do their jobs, which are demanding, and come with huge responsibilities as the agents of service delivery, the communication channels, and mediators between the council and residents. For Mohamed (2006), it is because ward committees are often under-resourced and lack administrative and logistical support. For Hicks (2006), it is because ward committees lack political leadership and their communication is ineffective.

But in the view of Nyalunga (2006), one of the reasons for the ineffectiveness of ward committees is that they have no formal powers to force council to do anything. For Piper and Chanza (2006), it is because ward committee members lack training in municipal processes and the technical details of budgetary, IDP and performance management processes. Skills and support are needed in order for members to engage with the community, but ward committee members lack skills and there is not sufficient support and empowerment provided to them (Piper & Chanza, 2006), and in turn, municipal officials are often unprepared to engage with ward committees (Hicks, 2006). The Good Governance Learning Network (GGLN) makes another interesting point. It points out that ward committees are formed with traditionally voice-less and disadvantaged people, and that leads people who are more economically well off or powerful not to take the ward committee system seriously (GGLN, 2008). Another reason discussed by Putu (2006) is a lack of participation by professionals on a voluntary basis, from them ward committees could learn and strengthen their capacity.

Several studies also observe the poor working relationships between councillors and ward committee members, as well as ward committees and communities. The Good Governance Learning Network (GGLN) (2008) observes that according to the Municipal Systems Act (32 of 2000, section 42) and Municipal Structures Act (117 of 2000, chapter 4), ward committees are the main forums for involving the public in the Performance Management Systems of municipalities. But councillors and municipal

officials are resistant to being assessed by word committees and they tend to be hostile to them. And ward committee members do not have any power to hold non-compliant councillors and officials accountable, due to a fact that the existence of ward committees depends on the performance of ward councillors, the political will of the party and the support of the municipality (Piper & Deacon, 2009). In addition, sometimes councillors and ward committees are competing with one another (Piper, 2009) and many ward committee members aspire to become councillors themselves (Hicks, 2006).

Similarly, the interaction between ward committees and communities are also marked by uncertainty, and in severe cases, are chaotic (Hicks, 2006). Municipalities are also not willing to involve stakeholders in the process of developing an M&E system, and the IDP. Furthermore, ward committees do not encourage citizens to participate and represent stakeholders in municipal affairs (Hemson, 2007). And councillors and municipal officials do not hold meetings in their wards to give service delivery reports to their ward committees because of their fears of or reluctance to answer questions asked by community members. They are also scared of reporting back or holding consultation meetings which become forums for complaints and protests about problems or against non-delivery (Makanasia, 2011). On the other hand, Arends (2011) provides another reason for the reluctance of political leadership to make adequate funding available for public participation. It is a lack of resources and there is a huge infrastructural backlog, among other things.

These factors are endogenous as they are related to people who belong to municipalities. Beside these factors, there are also exogenous factors that affect the level of public participation in local government. These factors are related to the policy and structure of local government, and the domination and centralisation of the ruling party in decision-making processes in municipalities. Schmidt (2007) argues that the problems with local government originated in the White Paper on Local Government (WPLG), which is in Schmidt's view overly optimistic and ambitious in expecting and positioning municipalities as the driving agents of economic and social development, effective service delivery agencies, and facilitators of local level democracy. He further argues that besides its one-size-fits-all approach to municipal government it is neither sustainable nor realistic. Demarcating wards according to geography is also pointed out by Nyalunga (2006), Buccus, Hemson, Hicks and Piper (2007) as problematic because it might prevent relevant civil society organisations from participating in

municipal forums as they are not situated in particular areas. A plethora of local government laws and regulations is pointed out by Steytler (2008) as another exogenous factor that strangulates municipalities.

The domination and centralisation of the ruling party (ANC) in the functions and decision-making of municipalities are also described as factors that affect, negatively, the performances of councillors and ward committees. There are many power struggles and lots of party politics in ward committees. And ward committees are often seen as a section of a party branch to be used as a means to advance a party agenda (Piper & Deacon, 2006). Such an environment creates conflict among councillors as well as ward committee members. Locally-grounded leaders are overtaken and disregarded by party candidates who are more powerful in the party (Benit-Gbaffou, 2012). Such politicisation or interference from the party in ward committees decrease the committee's representativeness and meaningful engagement of communities (Piper & Deacon, 2008; Gervais-Lambony, 2006). Moreover, it also undermines efforts to advance the interest of communities over party interests (Piper & Deacon, 2008).

Nationally, public participation at local government level is generally very poor. However, CoGTA (2015) states that public participation processes in Gauteng municipalities are general functioning well. But there is one problem with them: not all municipalities in Gauteng carry out annual community satisfaction surveys. But the Gauteng City Region Observatory (GCRO) conducts Quality of Life Surveys every year.

It is important to note that engaging and communicating with community members is in fact not only for the benefit of communities but also for the benefit and advantage of municipalities because they can receive public cooperation, engagement and local knowledge contributions to solve municipal problems. In addition, public participation in planning, resource allocation, problem-solving and in the decision-making process, in fact, helps to relieve the burden on municipalities of addressing the problems caused by resource constraints such as financial inadequacy and skills shortage.

Additionally, the interaction between the voting public, elected politicians, bureaucracy and political and action committees can help to bring about solutions to some of the problems of municipalities regarding service delivery (Buchanan & Tullock, 1962).

Furthermore, maximum community participation by all role players allows for large numbers of actors to have a voice on service delivery issues and encourages them to seek help on issues that are beyond their capacities and controls. Buccus, Hemson, Hicks and Piper (2007) argue that by including community members in the decision-making process, public protests can be reduced as the developmental agenda of municipalities would be driven and accepted by communities. Moreover, through community participation, development plans and services become more relevant to local needs and conditions (Buccus, Hemson, Hicks & Piper, 2007). Poor or a lack of community participation on the other hand leads to making development plans and providing services that are not relevant to local needs and conditions. It is important to understand that resource misallocation, one root cause of service delivery problems (Devarajan & Reinikka (2004) is a result of poor public participation in planning and decision-making processes of municipalities.

Understanding factors affecting the quality and level of community participation in municipalities is necessary in order to strengthen and improve the public's participation in the system of local government. These factors also need to be explored and understood because their early warning signs have to be extracted in preparation for solutions and developing response capabilities have to be based on the knowledge and understanding of these factors.

3.5.3 Non-compliance with rules and regulations

The third root of service delivery problems is "weak incentive", which is attributed to the issues of accountability and monitoring. Having no consequence for non-compliance with rules and regulations means there is neither incentive nor disincentive to follow the rules or to abide by regulations. Based on intensive literature review, document study and the preliminary interview, this research would like to suggest—albeit temporarily until the study is completed, the data collected and all the information analysed completely—among all the factors and problems that affect municipal service delivery performance, this factor, non-compliance with legislation, or a lack of accountability, or a tolerance for continued poor performance, could be the root cause of all problems and inefficiencies in municipalities.

Koelble and Siddle (2013) discovered that there is a vast difference between constitutional and legal mandates and the actual practices of municipalities. Only a small fraction of their sample, i.e. only 2 of 37 municipalities, came close to actually

performing all of the 38 functions required of municipalities in the Constitution. Although the Constitution and subsequent legislation provided local government with substantial powers and functions, in practice large numbers of municipalities in their sample are neither exercising nor performing these powers and functions (Koelble & Siddle, 2013). As Josie (2008) also indicates, the ways municipalities execute budgets often does not comply with financial management and reporting practices.

In his 2014/15 MFMA report, the AG raises three concerns: a lack of consequences for poor performance and transgressions; lack of response to AG recommendations; and levels of vacancies and instability in the key positions of municipalities. The first concern raised by the AG is the lack of response of municipalities to his recommendations. According to the AG's MFMA report for 2014/15, both municipal management and political leadership, as well as oversight groups such as municipal public accounts committees (MPACs) and portfolio committees are not taking the AG's recommendations or directives seriously, and sufficient effort was not made to establish basic internal controls and management disciplines at municipal level (AG, 2016).

The second concern of the AG is a lack of consequences for poor performance and transgressions and its negative effects on the compliance of municipalities and municipal entities with laws and regulations. The MFMA requires municipalities to investigate and take action against poor performance and transgressions such as the high levels of non-compliance, poor audit outcomes, SCM transgressions and unauthorised, irregular as well as fruitless and wasteful expenditure. The Auditor-General, in an interviewed by Thepa (2013), states that "it is elementary knowledge, that there is a lack of a culture of respecting the rule of law or of compliance to the rule of law in most government departments". The AG MFMA report for 2014/15, states that, during the 2014/15 financial year, councils at 45% of municipalities had not investigated these transgressions happened in their municipalities, even though the AG informed municipalities and indicated possible fraud or improper conduct in the SCM processes in their municipalities for investigation. And the cases continue to increase (AG, 2016).

In terms of capacity and skill, the AG's report (2012) indicates that in about two-thirds of municipalities, key officials do not meet the minimum required qualifications as envisaged in the Municipal Systems Act, 2000. Similarly, after pointing out "a direct

correlation between stability in the key positions of municipalities, such as municipal manager, chief financial officer and head of SCM unit, and the financial and performance management of municipalities as well as audit outcomes", the AG MFMA report on 2014/15 financial year also revealed that at the end of 2014-15 financial year, vacancies in chief financial officer positions were at 20%, and vacancies in municipal manager positions at 17% (AG, 2016: 18).

In 2007, the CoJ decided to implement the performance scorecard method for all permanent employees as part of linking performance and reward. The permanent employees resisted its introduction because they felt that they were now policed and thought it would not add value to performance—annual salary increases and 13th salary cheque each year are guaranteed irrespective of their performance (Phalatse, 2010). It was confirmed by public servants whom I interviewed. All of them said the performance management system and the employee performance scorecard system are "useless" and do not help to improve their performance.

Moreover, having performance measures and even tracking the measures do not mean anything if management does not use them to evaluate performance (Moss, 2007). As Berry (1991), Johnston (1999) and Moss (2007) conclude, ineffective PM and M&E systems would neither improve service delivery performance nor customer service quality. It is important to note that ineffective measures will not lead to improvement. The World Bank (2003) rightly argues, when there are no incentives or weak incentives applied to the service providers, the quality of service delivery will be poor. Without effective control and enforcement mechanisms, and merely having performance agreements and M&E systems will not improve the service delivery performance of municipalities. Thus, one of the essential functions of a systematic EWS is documenting compliance or non-compliance with laws, rules, and procedures during the municipal service delivery process.

There are several other factors that are not discussed here. Some of these factors include the effect of decentralisation (Koelble & Siddle, 2013; Cameron, 2012; Karodia, 2010; Wittenberg, 2003), priorities of the South African public sector reform model and the South African developmental model (World Bank, 2011), the plethora of national and provincial laws that strangulate municipalities and preventing it from executing its constitutional, developmental mandate (Steytler, 2008), weak co-ordination among government spheres as well as among municipalities themselves,

weak leadership (Sejeng, 2013; CoGTA, 2009), huge service delivery backlogs, leadership and governance failures, corruption and fraud, poor financial management, cadre deployment without adequate assessment of skills (CoGTA, 2009), undue political interference in management decisions (Deloitte, 2012), the rise of gatekeeper politics (Beresford, 2016) and the lack of an effective political opposition that monitors and checks the performance of the ruling party. The reason for not discussing these factors is not because they are less important, but because this research focuses on the factors that are within the control of municipalities and are directly related to the four roots of service delivery problems.

3.6 Three factors, research questions and EWS

Based on four roots of service delivery problems of Devarajan and Reinikka (2004), three main factors are selected. The study of these factors are necessary not only to understand them but also to explore their early warning signals. The third research question of this study is related to the M&E system that can serve as an EWS (i.e., providing early warning signals of developing problematic trends in municipal service delivery processes. There are two kinds of factors that are responsible for municipal problems and challenges: underlying factors (or root causes) and immediate factors (or particular causes). Immediate causes are the direct, obvious cause of particular problems, and root causes are the events or condition that cause or allowed the immediate cause to develop. While immediate factors are directly related to a particular problems or crises, root causes or underlying factors are related to different problems or crises.

Signs of resource constraints such as financial shortages or problems and skills shortages could be easily detected. Indicators that show early signals are overrun budgets, unspent budgets, cash shortages, overrun costs, late or even non-submission of financial reports, lack of equipment or skilled workers, numbers of unfilled vacancies. At the same time, Nikander (2002) states that resource constraints or skills shortage is also an early warning of future problems. The early warning signs of low public participation are also simple and easy to detect. Indicators that signal low public participation are low attendance numbers at meetings, frequency of meetings and low response at the call centres. Similarly, compliance indicators could also be established and used to identify persons and groups that do not comply with rules, regulations and guidelines. Moreover, the numbers and frequency of complaints and cases that are settled can also be used as compliance indicators.

As stated above, problems and challenges faced by municipal entities (MOEs) in their day-to-day service delivery are different from the above mentioned factors and problems. Problems and challenges which are encountered and have to be overcome by staff, employees and technicians of MOEs are the micro-level, day-to-day problems. The problems and challenges faced by City Power (CP) include a lack of equipment and tools; losses of cable and electricity (The total estimated cost of electricity losses in 2013 is R1.4bn while the CP has already paid Eskom for this electricity consumption (Styan, 2013); loss of working hours because of strikes; insufficient technicians who can maintain and run electricity sub-stations, which is also a result of worker strikes, unfilled vacancies and overall skill shortage; inability to collect debts (which have mounted to R4.9bn in the City Power debtors' book (Styan, 2013); difficulty in accessing consumers electricity meters to read electricity usage, which in turn resulted in massive incorrect billing issues.

Problems faced by the Johannesburg Water entity include lack of relevant skill-sets applicable to improperly trained technicians; insufficient tools, equipment and vehicles; water loss due to water theft and water pipe leakages and bursts (Over 31% of water in Johannesburg is unaccounted for; meaning a third of Johannesburg's water is either lost due to burst pipes or just not paid for (Bittkau, 2013); inability to collect debt; water pipe blockages because of sand and refuse infiltration or tree roots; sewer blockages—Johannesburg experiences approximately 3500 sewer blockages monthly (JW, 2013), inability to compile information about water pipe leakages and pipe bursts.

Problems faced by the Pikitup entity involve loss of working hours because of strikes; lack of skills and properly trained technicians; insufficient tools, equipment and vehicles; severe cash flow problem—the Annual Report of Pikitup (2012) indicated that at the end of 2011-12 financial year, Pikitup had an accumulated deficit of R363 million (due to the inability of council to collect its debts and the poor implementation of new billing systems), preventing or arresting illegal dumping (the removal of illegal dumping costs Pikitup in Johannesburg of R58 million per annum). However, Pikitup does not have legal authority to arrest illegal dumpers. It has to inform and work with the police. However, available literature, academic journal articles and researches hardly describe or discuss these micro-level problems and issues.

It is, however, reasonable to assume that these micro-level day-to-day problems are outcomes or results of macro-level problems and factors that are discussed in detail in Section 3.5.1, 3.5.2, and 3.5.3. There are chains of linkages among these micro-level and macro-level problems. Understanding the linkages and interconnections between these problems is essential to deduce or reveal early warning signs at both Micro and Macro level.

3.7 Conclusion

This chapter provides the local government M&E systems and service delivery challenges. It presents the functions and responsibilities of local government and the current municipal service delivery performance, followed by the presentation of legislative and regulative framework for municipal performance management and M&E systems. Then, it discusses the factors affecting municipal service delivery performance. In the following chapter, the research methodology of this study is presented.

Chapter 4

METHODOLOGY

This chapter presents the methodology used in this report. The chapter discusses the research approach, and research methods and evaluation of the chosen methodology. It describes the method of data collection and data analysis. In addition, issues around reliability and validity of the data and findings of the study, and ethical considerations are also discussed.

4.1 Introduction

To answer the main question raised in this research, this research is conducted in a qualitative manner, with the objective of obtaining qualitative information that provides insight into the extent the current M&E systems possess the characteristics and components of an EWS and the ways to incorporate an EWS into these systems to be able to function and serve as an EWS. The aims of this study were twofold: to investigate to what extent the current M&E system of the CoJ has the characteristics and components of an EWS, and then to propose an M&E system that has the characteristics and components of an EWS and therefore could provide early warning signs and signals on possible problems and crises in service delivery processes.

This study investigated the reasons for the absence of EWS components and characteristics in municipal M&E systems, which are by legislation required to function and serve as an EWS. Information this study searches for and collects were problems and challenges that frequently occur during the implementation stage of municipal service delivery processes, and signs or indicators that signals or informs the approach of these problems.

The researcher chose the qualitative method because the study seeks to interpret human actions, institutions, events, and customs in order to construct or portray in sufficient depth and detail. According to Robson (1993: 307) quantitative research deals with data that is expressed in numbers, while qualitative research is an approach in the human sciences which relies on a deductive model of explanation and deals with data that is in words and non-numerical form (Ary, Jacobs & Razavieh 1990: 445). Schurink (2005) emphasises that qualitative research regards reality as subjective and that observations are determined by information richness, setting, and

types of observation. Data are presented in the form of words, quotations from transcripts and documents, while quantitative research regards reality as objective, and observations are systematically undertaken in a standardised manner. This approach was appropriate to this empirical research undertaken from an explicit performance improvement perspective, with a focus on the better management of the municipal service delivery processes.

The qualitative approach used in this research allowed for flexibility and spontaneity with the participant as well as adaptation of the questions required to obtain in-depth information. Open-ended questions were used, so that the participants could respond in their own words, elaborately and in greater detail than is typically the case with quantitative methods. Qualitative data, as Punch (2000) states, are most of the time words, which are collected by interviewing, observing and reading documents. According to Strauss and Corbit (1990: 17-27), qualitative research findings are not based on "statistical procedures or other means of quantification". This research applied all three major components of qualitative research methods: data collection, review of written and verbal reports, and analytic or interpretive procedures (Strauss & Corbit, 1990).

The collection of the empirical data was based on the theoretical framework which focuses on the four roots of service delivery problems, which are resources misallocation, weak incentive, expenditure 'leakages', and demand side failure. These are used as a theoretical framework (Singh & Shan, 2003: 2) (see Section 2.4.4). The information this study collects was based upon common problems and challenges which occurred during the municipal service delivery processes, "signs, signals or indicators" that precede and indicate the approach of these problems, available methods to detect these problems in advance, preventative actions taken by municipalities to solve them, to alert and communicate about potential problems to responsible persons and stakeholders, and how capacity needed to pre-empt emerging problems could be built.

As a primary means, this research used a qualitative approach because "qualitative research provides a means through which a researcher can judge the effectiveness of particular policies or practices" (Neuman, 2003). Since M&E system of a municipality and its application in the implementation stage of municipal service delivery processes are a complex phenomenon, and the purpose of this study was to describe and

understand the nature and process of the municipal M&E systems in the municipal service delivery processes, their functionalities, the challenges and problems they are facing in their service delivery processes, and the M&E system that they are currently applying for the delivery processes, reasons of poor service delivery, and the effects and contribution of the EWS on service delivery. From the participants' point of the researcher, it was the most suitable to use a qualitative approach (Leedy & Ormrod, 2005: 94).

4.2 Case study methodology

This study has adopted a case study approach. Case study refers to an event, an entity, an individual or even a unit of analysis. It is an empirical inquiry that investigates a contemporary phenomenon within its real life context using multiple sources of evidence (Yin, 1989). For Anderson (1993), case studies are concerned with how and why things happen and investigate contextual realities and the difference between what was planned and what actually occurred. It also enables the researchers to understand the complex real-life activities in which multiple sources of evidence are used. The use of case study was therefore the most suitable for my research as the objective of this study is to explore the current M&E system of municipalities and how municipalities applied it during their service delivery processes.

Case study is a method of enquiry designed to bring out the details of information from the viewpoint of the participant through the use of multiple sources of data to increase reliability (Tellis, 1997: 44). According to Bogdan and Biklen (1998), this inquiry is defined in terms of participant observational case study wherein interviews and documents become the major source of focus. This study used a single case study methodology. At the beginning stage of this study, it was proposed (in the research proposal) and planned to do three case studies on three regions of the CoJ, which has in total seven regions. These three regions are: Region B that includes the whole of the former Region 4, excluding Ward 70 (such as Florida), including Wards 90, 102 & 104 (such as Rosebank, Bryanston, Randburg); Region D that includes Soweto only; and Region E that includes Wards 73, 74, 91, 103 and 106 (such as Parkwood, Highlands North, Alexandra, Wynberg, Morningside, Douglasdale). However, during the data-collection periods, it was discovered that there are no enough separate data and information from region to region and thus it was unable to do three case studies. As a result, this study presents a single case study that cover

problems, challenges, factors and causes of them, as well as early warning indicators and signals of them experienced in all seven regions of CoJ.

The main reason for choosing case study research is because it, as Yin (1984: 23) states, “excels at bringing us to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research”.

“A case study is an in-depth study of one individual, a group of individuals or an institution. Case studies provide significant amounts of descriptive information, and they can also provide some explanatory information about *why*, as well as *what*” (Brink, 1996: 116). Moreover, case studies emphasise detailed contextual analysis of a limited number of events or conditions and their relationships. According to Yin (2003: 97), the major strength of a case study data collection is the prospect to employ many diverse sources of evidence. The use of varied sources of data in this study will make the findings or conclusion more realistic and if plausible, precise. The research will collect the information and data on the municipal M&E systems and service delivery processes of the CoJ from three different sources, namely from the government departments, municipal management and staff, from the community members and the consumers that the municipalities are providing the services to, civil society, NGOs (Non-Governmental Organisations) and CBOs (community-based organisations), and from the intellectual and educational organisations such as research institutes and universities.

The purpose of this research was to explore and investigate the effectiveness of municipal M&E systems in the service delivery processes of the municipality, to examine the common problems and challenges experienced during the service delivery processes, and early warning signs or indicators of these problems. The aims were twofold: to investigate to what extent the current M&E system of the CoJ has the characteristics and components of an EWS, and then to propose an M&E system that serves as an EWS and can be used by the municipalities on a weekly basis to continuously monitor and evaluate service delivery performance. Therefore, a case study research strategy was best suited to this aim.

4.3 Unit of analysis

The unit of analysis refers to 'the level of aggregation of the data collected during the subsequent data analysis stage' (Cavana, Delahaye & Sekaran, 2001: 119). Guided by the research problem and the time and resource constraints, this research selects all regions of the CoJ which has in total seven regions.

There are two areas of study field that this research explored and studied: the first is the detailed steps and processes of the M&E systems and their roles in and impacts on the implementation stage of municipal service delivery processes, and the second field is the problems and challenges that are regularly and recurrently experienced in the municipal four basic service delivery processes, and ways to foresee and avert those problems and challenges. Three theories, i.e., four roots of the service delivery problems, theory of weak signal, and four essential components of an EWS, discussed in section 2.4.3 (of Chapter 2), the theoretical framework section, are used.

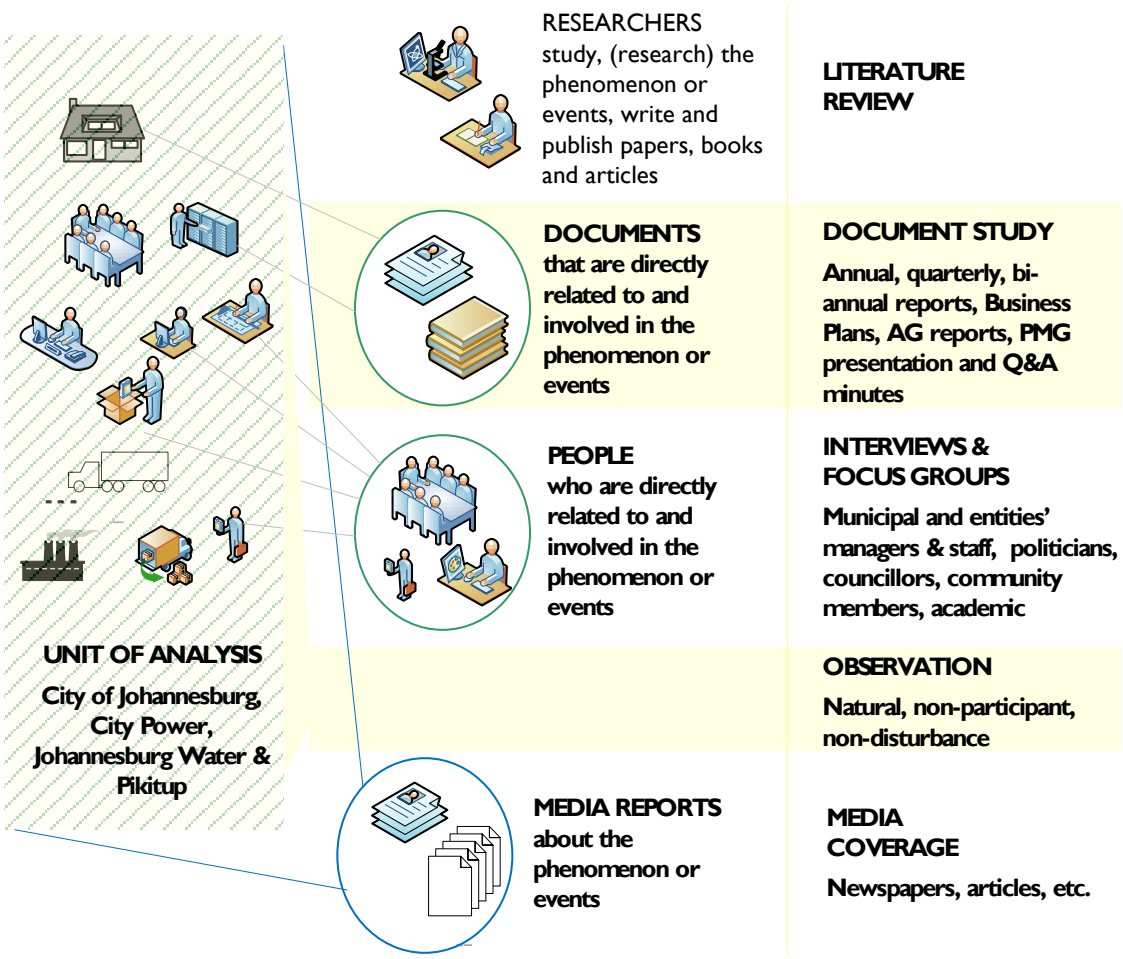
4.4 Data collection strategies

Creswell (1998) states that qualitative researchers generally rely on four basic types of data sources: interviews, observations, documents and audio-visual materials. By its nature, a case study draws on a number of methods in gathering data, namely observations, interviews and informal conversations, and artifacts. One reason for using multiple methods of data collection was to increase the 'trustworthiness' of the findings. From a theoretical and methodological perspective, the study sought the kinds of data that would answer the research questions (Patton, 2001). The main purpose of this research is to integrate the EWS components into the current M&E system, so that it can be used to continuously monitor and evaluate the health of local government. To answer pertinent questions, interviews, observations, or written accounts were used to collect and analyse data (Brink, 1996: 116).

Concerning the nature of primary-data, this research holds that it is not the data-collection method that dictates the status of primary-data but the originality and first-handedness of the content of the data and information that make them primary-data. Data is still primary even if the researcher does not collect it by himself or herself, as long as they contain originality and first-handedness in them. Data and information such as video and audio-recording (or even the transcripts) of interviews, which might have been conducted by other researchers or even journalists, can still be regarded as primary-data, although these were not collected by the researcher. Premised on

this position, this research collected recorded documentaries such as public hearings, meetings and discussions recorded and archived by the Parliamentary Monitoring Group (PMG). This study's emphasis was on the triangulation method of data collection by employing various methods and tapping various sources for data. The accuracy of these data was verified during interviews with the participants as well as by site observation. The data management plan is stated and detailed in Appendix E (Figure 4.1).

Figure 4.1 Data collection and source of data



4.4.1 Semi-structured and in-depth interviews

Almost all of similar studies and research (Nikander, 2002; Havenga, 2002; Netswera, 2005; Bekink, 2006; Bonga, 2007; Nkoana, 2007; Stanton, 2009; Karodia, 2010; Makwarela, 2010; Phalatse, 2010; Makananisa, 2011; Johan, 2013) used interview as a primary mean for data collection. This study used the semi-structured and the in-depth interview techniques in order to elicit a vivid picture of the contributors' perspective on the thesis topic. The in-depth interview is an effective qualitative

method for encouraging experts or normal interviewees to share their opinions and experience (Soy, 1996).

Twenty six persons from four different groups—public servants and municipal officials and staff; Civil Societies; Community members; and researchers and academics—were interviewed. Two interviews (with a director from DPME, and a director from DBSA) were conducted as a preliminary study in 2011. Again, four interviews with senior officials from the CoJ were conducted as a preliminary study on the 6st of November, 2013. The positions, ranks and groups of interviewees and the dates of interviews are described in the following table (Table 4.1 and Table 4.2).

Table 4.1 Numbers of interviewees and their positions or ranks

Descriptions: Positions, ranks, and groups	Numbers
Councillors (1 former councillor, and 4 current councillors)	5
Senior officials from the Gauteng provincial government	2
Senior officials from CoJ	6
Senior official from municipal entities	1
Director from DPME	1
Director from DBSA	1
Director from CoGTA	1
Community members	5
Consultant	1
Researcher	1
Academic	1
M&E practitioners	1
Total numbers of interviewees	26

Table 4.2 Dates of interviews

Numbers, description	Interview Date
5 Councillors	C1, 31 July 2014 C2, 26 August 2014 C3, 23 Jan 2015 C4, 19 Feb 2015 C5, 25 March 2015
2 Senior Officials from the Gauteng provincial government	SOG1, 18 Feb 2014 SOG2, 12 March 2014

6 Senior Officials from the City of Johannesburg (CoJ)	SOCoJ1, 6 Nov 2013 SOCoJ2, 6 Nov 2013 SOCoJ3, 6 Nov 2013 SOCoJ4, 6 Nov 2013 SOCoJ5, 4 March 2014 SOCoJ6, 9 April 2014
1 Senior Officials from Municipal Entity (JW)	SOME1, 13 Nov 2015
1 Director from DPME	DDPME, 19 July 2011
1 Director from DBSA	DDBSA, 6 July 2011
1 Director from CoGTA	DCogta, 21 Aug 2014
5 Community Members	CM1, 19 March 2014 CM2, 11 April 2014 CM3, 17 June 2014 CM4, 20 Sep 2014 CM5, 6 Feb 2015
1 Consultant	Con, 28 Jan 2014
1 Researcher	R, 1 May 2014
1 Academic	A, 8 August 2014
1 M&E practitioners	M&EP, 22 April 2014
26 persons in total	

The actual numbers of people who were interviewed for this study are more than 26 people as listed in this thesis. Apart from the listed 26 people whom I interviewed properly, there are several people (more than 10) such as conference and workshop attendants who were from, or associated with, municipalities whether councillors or municipal officials or staff; community members and residents (as all of us fall in that category), municipal staff such as Joburg Water technicians who fix water pumps and pipes, and Pikitup workers who weekly (unless they are on strike) come to our homes to pick up our rubbish. But the conversations with them were ad hoc and not planned systematically, as well as their unwillingness to allow me to audiotape, or to reveal their identities, hence, they are not included in this study as proper interviewees.

This researcher was aware that the lack or limitation of knowledge, or awareness, of respondents could also cause them to provide wrong information, involuntarily. For example, in a preliminary interview with four persons from the CoJ conducted on the 6th of November, 2013, as a part of the process of developing the problem and context, one respondent stated that the CoJ is the “major’ shareholder in municipal entities such as City Power, Joburg Water and Pikitup. But in fact the CoJ is the “sole” shareholder of them. That experience of involuntary error made by the respondent is in line with the caution pointed out by Chadwick, Bahr and Albrecht (1984) to take into consideration when collecting data through interviews.

In order to overcome such kinds of errors or incorrect or misleading information provided by respondents, involuntarily or voluntarily, two focus-group discussions (FGD) on 23 June 2014 and on 24 November 2014, document study, and site observation were also applied in this study. Furthermore, the selection of interview respondents was also made from different sectors and groups such as from opposition parties, civil society, labour unions, academics and journalists. At the same time, the study keeps in mind the possibility that the respondents might be, in one way or another, biased in their view because of their political orientation or career situation.

Figure 4.2 Informal chatting with Pikitup employees



Note: Photo taken on 4 February 2014, on Kelvin Road, Morningside, Sandton.

As Bogdan and Biklen (1998: 35) state, “qualitative researchers are interested in how people act and think in their own settings; they attempt to ‘blend into the woodwork’, or to act so the activities that occur in their presence do not differ significantly from those that occur in their absence”. The interviews therefore were conducted in the research setting where participants felt comfortable. The warning of Bogdan and Biklen (1998: 35) as “[i]f you treat people as ‘research subjects,’ they will act like

research subjects, which are different from how they usually act" was heeded throughout the data-collection processes. When communicating and interacting with the interviewees, special caution was taken not to treat the participants any differently from their normal day-to-day interaction. The interviews were based on open-ended questions as the objective is to obtain "fuller development of information". According to Weiss (1995), in-depth interviews provide detailed, thorough and diverse information and are therefore appropriate for the complex nature of issues that need to be covered for an understanding of the process of policy formulation, implementation and regulation.

Based on the central question of this research: to what extent does the current M&E system have the components and characteristics of an EWS, what are the common problems and challenges in municipal service delivery processes, what are the early warning signals of these problems, and how can the existing M&E mechanism be integrated with an EWSs components so that it can serve as an EWS, the data gathering process was guided by the following four key focus areas: Main problems and challenges that hinder the Implementation stage of municipal service delivery process; the underlying situation and root causes of these problems; signals or warning indicators of these problems; and a mechanism to detect these signals or warning indicators. (See Appendix C, for a list of the questions asked.)

As mentioned above, the research data was collected by using semi-structured as well as in-depth interviews from the three different groups, in order to reinforce the validity and reliability of the data and information provided by respondents. The first group for the interview are the key informants who are within the municipality and municipal entities. These key informants are senior managers, directors, and municipal employees involved in the implementation of the service delivery processes. The second group is external academics, researchers from the universities and the third group is persons from the trades and worker unions and civil society. The interviews were recorded on condition that participants give permission to do so. Where permission was not granted, notes were taken to ensure that the views of the participants will be represented accurately. Recording is valuable and useful to check the accuracy in the wording of statements from notes, particularly when there is a need to quote respondents.

Besides face to face interviews, e-mail and telephone interviews were also conducted in order to be able to interview persons who are not available for face to face interviews or who live far away from the researcher. These e-mail and telephone interviews enabled the researcher to follow up the previous face to face interviews or to clarify answers from the respondents.

Different data collection methods were used in the study. The four methods stated here are the main methods. Several other methods were also applied, to supplement to these four methods. But those small methods were conducted in an ad hoc fashion, and either unstructured or unsystematic as they were not planned. For example, I have attended and participated several workshops, dialogues, meetings, group-discussion where political leaders (such as the President, Ministers and senior government officials, at the Presidential Local Government Summit, attended on 18 September 2014, at Galaha, Midrand, Gauteng), municipal officials, staff and workers, as well as councillors and community members (at Resident Association Meetings attended on 19 February 2014 at Region C Ward Governance Boardroom, 100 Christiaan de Wet street, Randburg, Johannesburg), and collected and noted data and information from their discussions and debates. Moreover, social discourse such as on-line discussions groups (such as LinkedIn, Facebook, Twitter, Quora) and complaint-website for various government departments and organization, (State-Owned Enterprises) SOEs, as well as private companies, for example http://hellopeter.com were used to collect data for this study.

4.4.2 Non-participant direct naturalistic observation

Observation means watching a phenomenon as it occurs in nature with regard to the cause and effect relationship. To conduct an observation the researcher went to places where the event was taking place and recorded the findings as accurately as possible. Leedy and Ormrod (2001: 158) state that “the primary advantage of conducting observations is flexibility. The researcher can easily shift focus as new data comes to light”. Moreover, the biggest advantage of the naturalistic method of research is that researchers view participants in their natural environments. Leedy and Ormrod (2001: 196) argue that when prepared well and structured carefully, an observation can reveal the richness and complexity of a phenomenon under study. However, they also state that there is a major disadvantage too: by being there as an observer, “the researcher may alter what people say and do and how significant events unfold”.

In a non-participant direct observation, unlike in interviewing, the observer did not actively query the respondent. The observer tried as much as possible to be like an eavesdropper who attempts to observe people without interacting with the research subject, in this study of municipal management and staff, without their knowledge that they are being observed. Four observational visits were made: first, to the City of Johannesburg office at Thuso House, 66 Stiemens Street, Johannesburg on 6 November 2013; second, to the City of Johannesburg Environmental Management Department and the Infrastructure and Services Department (EISD) office at Traduna House, 118 Jorissen Street, Johannesburg on 13 August 2014; third, to the Pikitup Head Office, Corner of Bertha and Juta Streets Braamfontein, Johannesburg, on 13 November 2014; fourth, to the Council Chambers, Ground Floor, Council Chamber Wing, Metro Civic Centre, 158 Loveday Street Braamfontein, Johannseburg, on 26 February 2015 (Figure 4.3).

Figure 4.3 Councillor Meeting

At the CoJ Councillor Chamber on 26 February 2015



The Pikitup's Chief Operation Officer (COO) agreed on 13 November 2014 to allow the researcher to go with Pikitup refuse collecting truck for a week. However, although repeatedly requested for about a year, the arrangement was never actualised. However, the researchers meet with several Pikitup staff from refuse collection truck

and observed their functions and activities. Information acquired in the observation include the nature and functionalities of municipal M&E systems and service delivery challenges, interactions among officials and staffs, the organisation of the offices, and work-loads and staff levels of various offices, and staff work ethics and motivation levels.

4.4.3 Customer service call

The Qualities or otherwise of municipal services are best defined by the views of customers. Apart from interviewing community members and community-based organisations on the matters of municipal service qualities, to get the real experiences of customers or community members who use municipal services, 15 systematic telephone calls were made to municipal customer services, as well as to municipal spokespersons and information officers, and their responses and the way they communicated were studied. It was necessary to conduct it in the way these are some of Johannesburg citizen's biggest complaints when discussing municipal service delivery quality and performance. Most of the respondents complained about waiting time to get through to the call-centres and being cut off and having calls dropped during their calls to the municipal call centres.

4.4.4 Documentary study

To compensate for the limitations of interview and observation methods, documentary sources were used as an important supplement. Documentary evidence provided a method of cross-validating information gathered from interviews and observation as sometimes what people say is different from what people do (Noor, 2008: 1603). This study perused and analyse official and unofficial documents, and records pertaining to the municipal service delivery processes.

Documents provided additional specific detail to back up information from other sources. The use of documents enabled this researcher to gain an in-depth understanding of the functions and challenges of municipalities during their service delivery processes, and the M&E process. Moreover, a review of documents also enabled this study not only to look for facts, but also to read between the lines and pursue corroborative evidence elsewhere. This research studied documents like municipal reports such as annual, mid-year and quarterly reports, government legislation, as well as official reports and files (unsolicited documents) as primary

data, as well as media and press statements, interviews and relevant news, consumers' complaints and comments as secondary data.

To supplement the data gleaned from the interviews and site observations, primary and secondary documentary and archival data sources were also drawn on. Furthermore, the international literature and research studies on local government and the municipality, other countries' case studies were also consulted. One of the important uses of documents is that of corroboration of evidence on or against what is in question (Tellis, 1997: 51). Media reports on service delivery and press statements were scrutinised to provide an understanding of the various viewpoints of participants. Policy documents, the constitution, pieces of legislation and other related government documents were used to broaden the conceptualisation of issues on service delivery challenges.

The documents utilised in this study were all three White Papers (RSA, 1995, 1997, 1998a); the Municipal Structures Act (RSA, 1998b); the Municipal Systems Act (RSA, 2000); Intergovernmental Relations, and the Ten-Year Review of the State of Local Government in South Africa; Blue Drop Score and Green Drop Score on the performance and impacts of municipalities; the Auditor-General's annual reports and general reports on the audit outcomes of the Gauteng Local Government; the Treasury Department's annual reports; Statistics South Africa's reports; and official reports, handbooks, manuals and documents published by the CoJ such as the PM Policy & Procedure Document (2001), Establishment of Performance Management Panel Briefing Document (2003), Reflection on a Solid Foundation 2005: Building Developmental Local Government 2000-2006 Report (2006), Employee PM Handbook and Training Manual (2006), PMS Audit of Municipal-owned entities (2007), and Customer Satisfaction Survey (2009) (Table 4.3).

The research also made use of audio and video recording material such as records of the Parliamentary Monitoring Group's discussions, hearings and question and answer sections, audio and video interviews of mayors and municipal managers, and the M&E mechanisms applied in the functionalities of the municipal service delivery process.

Among those four data collection methods, the experience of this study revealed that document study is the most effective method to study and collect municipal service

delivery problems, challenges and difficulties and their causes and possible early warning signs. This realisation about the effectiveness of document study also suggests that the sources of early warning signs or weak signals are already in documents related to local government or municipalities, such as annual reports, business plans, AG reports, research studies, articles and media publications.

4.4.5 Focus-group discussions (FGD)

In order to compensate the limitation of interviews and insufficient site-observation that the City of Johannesburg and three municipal entities did not allow to be conducted although many repeated requested were made and verbally agreed but never officially granted permission to do, two focus groups, with municipal staff, employees and councillors, who were attending the post-graduate diploma course at the Wits School of Governance (WSG) on 23 June 2014 and 24 November 2014, were later applied as a data collection method supplementing to interview, site observation, document study. In a focus group, there were 23 participants in the first focus-group discussion (on 23 June 2014) and 18 participants in the second focus group discussion (on 24 November 2014). Among the participants, only five in the first discussion, and six in the second discussion were from the CoJ, and municipal entities.

Table 4.3 Documents perused and studied thoroughly

No.	Documents	Sources	Information and data that are looking for	Note
1.	Legislations, Laws, and Acts, such as the Constitution, White Papers, MSA, MFMA, IDP, Improvement Plan (GDIP), etc.	Government, Local Government, municipalities	Legal Framework; Roles, Functions and Responsibility of Local government; Vision and targets, outcomes	Vision and target output and outcome; functions, responsibility, and requirements of municipalities
2.	Annual, Mid-year and Quarterly Reports, Business Plans, Statistical Publication	Government, Local Government, AG, Stats SA, Municipal entities, SALGA, etc	Statistics; Performance situation and level; barriers and challenges; accomplishment and development.	PM and M&E process and steps, Performance level,

3.	Surveys such as Customer Satisfaction survey, Blue Drop Score, Green Drop Score	Local Government, Water Dialogues South Africa (WDSA)	Public views on output and outcomes of municipal service delivery performance	Output and outcomes, public perception and view
4.	Media coverage such as newspaper articles	Media	Popular perceptions and views, news coverage, debates on municipal service delivery performance and situation.	Public views and perceptions; performance and situation of municipal

4.5 Data analysis strategies

Data analysis is, according to Marshall and Rossman (1989), a practice of categorising the collected data into a format that has order, structure and meaning. and they aver that qualitative data analysis is a search for general statements about relationships among categories of data. All data generated and collected during each of the interviews, non-participant direct observation and documentary study are compared and categorised along the themes of the research questions, such as the nature of municipal M&E systems, the nature and steps of the municipal service delivery process; problems and challenges during service delivery processes, and early warning signals of them.

Case study data analysis generally involves an iterative, spiralling, or cyclical process that moves from more general to more specific observations (Creswell, 1998; Palys, 1997; Silverman, 2000). Data analysis began informally during interviews or observation and continued after the data collection process and audio recording of interviews were studied. When written records of collected data, coding were conducted and salient points or structures were identified. Themes and categories of each municipal entity (ME) are common to all. For applying case study approach or methodology, generalisations were made because each case has its particular context and conditions that create its own kinds of problems and early signals as well as the causes of these problems.

4.5.1 Root cause analysis (RCA)

In order to understand common municipal service delivery problems, their causes and the interrelationship amongst these problems, Root Cause Analysis (RCA) is used. RCA is an analytic process to discover what happened, why it happened and how it

can be prevented. Unlike the traditional process of investigation that focuses on finding out who made the mistake, RCA rather focuses on why the mistake was made. Its objective is to discover solutions and to improve the processes or systems (Staugaitis, 2002). There are four major steps in RCA: data collection, causal factor charting, root cause identification, and recommendation generation and implementation (Rooney & Heuvel, 2004). However, this study needed to take one more step—identifying early warning signals or indicators of root causes. It was because awareness of root causes is an important step necessary to be able to identify the early warning signals of approaching problems.

4.5.2 Thematic analysis and factor categorisation

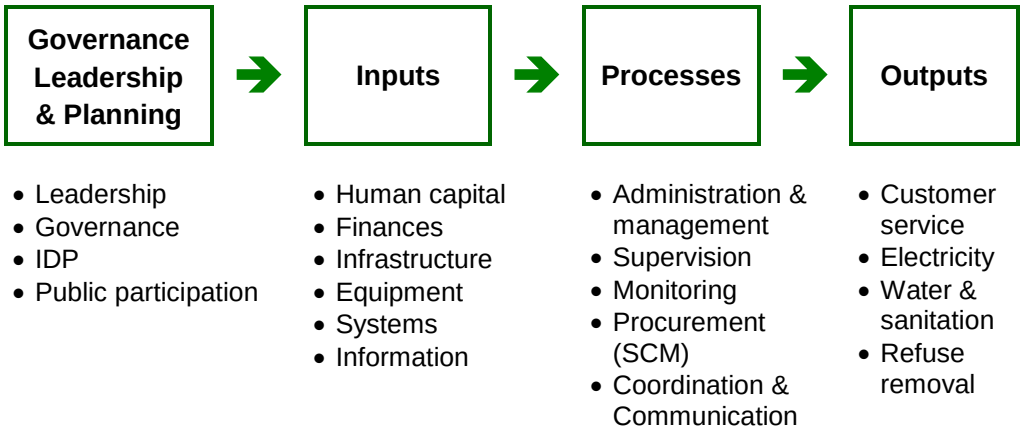
Together with RCA, Thematic analysis was applied to analysis the collected data. Thematic analysis is "a method for identifying, analysing and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail" (Braun & Clarke, 2006: 79). Boyatzis (1998) characterises it as a tool to use cross different methods--rather than a specific method by itself. For Holloway and Todres (2003: 347), it means identifying "thematizing meanings". It is a process for encoding qualitative information which requires both implicit and explicit codes that may be "a list of themes; a complex model with themes, indicators, and qualifications that are causally related; or something in between these two forms" (Boyatzis, 1998: vi-vii; Guest, MacQueen & Namey, 2012).

Based on the themes revealed by the thematic analysis, factor categorisation was applied to group factors responsible behind municipal challenges and problems. Those factors or causes are divided into three main groups: supply-side, demand-side and exogenous. Municipal affairs and business are joint-efforts of municipalities, together with municipal entities, and communities, which is how the two sides as supply-side and demand-side arise. Supply side is related to municipalities and municipal entities, which are responsible for supply services, and demand-side is about behaviours and activities of communities and customers, i.e., their participation and cooperation, or lack of them.

Supply-side factors and causes are further divided into four categories: planning, inputs, processes, and outputs, using the system theory with one added category, planning. Planning category has four sub-categories (leadership, governance, IDP, public participation), inputs category has five sub-categories (Human capital, finances,

infrastructure, machines and tools, and information), process category has four sub-categories (administration, supervision, monitoring, and coordination and communication), and outputs category has four sub-categories (customer care, electricity, water and sanitation, and refuse removal) (Figure 4.4).

Figure 4.4 Supply-side factors and causes



4.6 Reliability and validity

Issues of reliability and validity in qualitative research have long been debated amongst researchers. Although regarded as an important issue in qualitative data collection, reliability is usually not seen as problematic by qualitative researchers who use a naturalist approach and seek to understand phenomena and events in context-specific settings like a "real world setting" as Patton (2001: 39) calls it where researchers do not try to manipulate or control the phenomenon of interest. Qualitative researchers such as Chadwick, Bahr and Albrecht (1984) argue that several artists could paint a given mountain in different styles and using different techniques but still get an accurate representation. In the same vein, qualitative researchers could describe a given group or a given event or phenomenon differently, but without being biased or inaccurate.

In their seminal work, Guba and Lincoln (1981; 1982) substituted reliability and validity with the concept of "trustworthiness," which is comprised of four aspects: credibility, transferability, dependability and conformability. To ensure the study is trustworthy or reliable or valid, Patton (2001) advocates the use of triangulation by combining methods of data collection, collecting data from different sources, and applying more than one theory to frame and guide the research. It is supported by Johnson (1997:

284) who states that “engaging methods, such as observation, interviews and recordings will lead to a more valid, reliable and diverse construction of realities”.

On the other hand, according to this definition of reliability defined by Joppe (2000: 1) as the extent to which results are consistent over time and an accurate representation of the total population under study, a research instrument can be considered to be reliable, if the results of a study can be reproduced under a similar methodology. Similarly, Babbie (1989: 121) refers reliability to the likelihood that a given measurement procedure will yield the same description of a given phenomenon if that measurement is repeated. However, for qualitative researches the primary research instrument is the researchers themselves (Golafshani, 2003) and there are not many measurement instruments involved in the research process, especially when thematic analysis is used to analyse the data (Guest, MacQueen & Namey, 2012).

For this research, the research problems were not revealed directly from interview questions or document studies or site-observations. It was the researcher who looked for and revealed answers for his research questions by making sense of the data and information provided and collected through various data collection methods, and finding the missing links or connecting invisible dots among the data and information.

Accordingly, this study carefully selected the right people who have knowledge within relevant areas. Moreover, a number of strategies such as using the triangulation method in terms of data-collection, different theoretical approaches, and data-analysis were employed to ensure, or at least promote, trustworthy or reliable or valid procedures during data collection, data verification and the reporting process. (The following session discusses the triangulation method applied in this research in more detail.) Besides the use of triangulation, integrity was maintained by using different sources of data, transcription or notes of the interviews and discussion were sent to relevant respondents, in order to enable the respondents to read and revise or add material if they want to. It enabled interviewees to give more information, or verify, or clarify what they have answered or discussed. But no interviewees added or changed the transcripts that were sent to them.

4.7 Triangulated research strategy

Triangulation is typically used as a strategy for improving the validity and reliability of research (Golafshani, 2003). There is a general consensus among researchers that

using multiple sources of data collection is likely to increase the reliability of the observation of a research project (Mouton & Marais, 1991; Yin, 1984). It was Denzin (1978) who coined the term *triangulation* to refer to the application of multiple methods of data collection. This study used three sources of data, they are document study, interview and site-observation, which ensured the accuracy and validity of the data and information by means of cross-checking varying perspectives or information provided by respondents observed during the site-observations and studied from documents and secondary data (Wolcott, 1988).

Interviewees were from the government and municipalities; civil society and Non-Governmental Organisations (NGOs) such as resident associations; from international academic and from their studies and research on the best practices and lessons of experience on municipal service delivery functionalities and processes as well as monitoring and evaluating the processes which are going to be studied.

The purpose of studying and collecting data and information from three different sources was to obtain the different views, concerns, understanding and recommendations from these sources. The views, experiences and understanding of the senior officials from municipality and municipal entities are not the same as those of officials from provincial and national governments. Similarly, the views, experiences, concerns and expectations of community members on service delivery performance were different from those of municipal management and staff. Therefore it was invaluable and interesting to hear all voices and views from these different stakeholders.

The reason for studying material from international academic and financial institutions was to become informed on international best practice experiences on reforming their public sectors and improving the performance of municipal service delivery processes. It helped to learn what kinds of M&E systems and early warning tools they use in order to improve municipal performance. The international experience was discussed in detail in the literature review section of the dissertation of this research.

4.8 Ethical considerations

This research required the participation of human respondents such as municipal managers, workers, staff, academics, members of civil societies and community members. Thus, ethical issues were taken into consideration and addressed. The

ethical considerations were to ensure the participant's privacy and safety. The most important issues taken into consideration were the issues of consent and the confidentiality of the participants and their data.

In order to secure the consent of the selected participants, the researcher explained all important details of this study that include the aims and purpose of this research. It helped the participants to understand the importance of their role in the research. All participants were fully informed and all important details of this study which includes the aims and purpose of this research, and the research questions and underlying premises which frame the study were explained, so that all participants understood the importance of their answers and participation in the research. The participants were not coerced to participate in the research. Furthermore, the respondents were advised that they could withdraw from the study any time they wish even during the process. But all participants were happy and supportive as they also wanted to know the answers that this research was trying to discover. All participants said they would like to get the thesis when it is completed.

As Merriam (1998) points out, ethical considerations within qualitative research require two most important matters: confidentiality and anonymity. Moreover, Leedy and Ormond (2005) identifies the four key critical ethical issues in research as protecting the participants from harm, acquiring informed consent, ensuring their right to privacy and establishing honesty with professional colleagues. A written memorandum that ensures the participants' safety and confidentiality were given to all interviewees. The culture of the respondents was respected and considered at all times. Moreover the trust between researcher and respondents was highly valued.

In order to ensure the safety, confidentiality and anonymity of the participants, their names and personal information were not disclosed in the research. Instead, code numbers were applied to refer to individual respondents whenever direct quotations need to be included. Furthermore, only relevant details that are necessary to answer the research questions were included in the thesis. In coding the name, the following system of code formulation was devised and applied:

C	refers to councillor
SO	refers to senior official
SOG	refers to senior official from the Gauteng provincial government

SOCoJ refers to senior official from the City of Johannesburg (CoJ)
SOME refers to senior official from municipal entity
D refers to Director
DDPME refers to director from DPME
DDBSA refers to director from DBSA
DCogta refers to director from CoGTA
CM refers to community member
R refers to researcher
M&EP refers to M&E practitioners

The Code numbers referred to the interviewees is described in the following table (Table 4.4). (See Appendix E: Data Management for more detail about confidentiality and anonymity).

Table 4.4 Numbers of Interviewees and Codes Referred to Them

No.	Descriptions: Positions, ranks, and groups	Codes
5	Councillors (1 former councillor, and 4 current councillors)	Cou1—Cou5
2	Senior officials from the Gauteng provincial government	SOG1—SOG2
6	Senior officials from CoJ	SOCoJ1—SOCoJ6
1	Senior official from municipal entities	SOME1
1	Director from DPME	DDPME
1	Director from DBSA	DDBSA
1	Director from CoGTA	DCogta
5	Community members	CM1 – CM5
1	Consultant	Con1
1	Researcher	R
1	Academic	A
1	M&E practitioners	M&EP
Total numbers of interviewees		**26**

4.9 Conclusion

The chapter presented the research strategy that was employed to extrapolate and analyse data relating to the municipal service delivery problems, factors and causes behind them, and the municipal M&E systems. It also discussed the research approach, research methods, and rationale and evaluation of the chosen methodology, together with the method of data collection and data analysis. This chapter explains some limitations of interviews and how they are overcome by using document study and analysis as a supplementation of data collection.

In this chapter, an argument related to “primary data” was made, i.e., the essence of “primary data” is more about the nature of data, than the collection methods of it. Primary data does not necessarily have to be collected by researchers themselves, and as long as data are not processed—they are still in their raw forms—data could be regarded as “primary”. Another important point made in this chapter is a new way of factor categorisation, as there has been no uniform categorisation or classification of factors related to municipal service delivery challenges. Different studies use different categories and groupings of factors. The factor categorisation devised and used in this study and in this thesis is based on steps in M&E processes, so they those factors could be better monitored and checked through M&E.

Moreover, it discussed the strategies take to ensure the reliability and validity of the data and findings of the study, through triangulation research, and ethical considerations and cares taken to ensure the participant’s privacy and safety. The next chapter presents the service delivery challenges of the CoJ and three municipal entities, and their causes and factors discovered from interviews, focus-group discussions (FGD) and document study.

Chapter 5
SERVICE DELIVERY CHALLENGES

This chapter presents the findings on service delivery challenges faced by the City of Johannesburg and its three municipal entities. First, it presents the background information on the formation of the City of Johannesburg (CoJ) as a single-tier metropolitan system and iGoli 2002 Plan. Second, it introduces three municipal entities that deliver four basic services. Third, it discusses the simple model of local government system. Fourth, it explains the business model of municipal entities and their current performance levels. Fifth, it discusses two primary problems in municipal service delivery. Sixth, factors affecting the municipal service delivery performances of municipal entities are presented and a model of categorising these factors is proposed. After that, four important issues discovered by this study are highlighted. Finally, the relationship between these factors and early warning signals are discussed.

Both this chapter and the next one (Chapter 6) present the findings revealed by this study. This chapter is related to the service delivery challenges while the next chapter (Chapter 6) is related to the Monitoring and Evaluation system and Early Warning System. Although not directly related to the main research question of this study, which is M&E and EWS, this chapter is important because understanding municipal service delivery challenges and problems, and factors behind them are necessary to understand, monitor, interpret and use early warning signals of those factors and challenges in order to build a risk or problem database—one of four essential elements of an EWS, and to develop response capabilities—another essential element of an EWS.

5.1 Introduction

This chapter has two main parts. The first part is a brief introduction to three municipal entities (MEs)—City Power (CP), Johannesburg Water (JW), and Pikitup—and the role the City of Johannesburg (CoJ) plays in the delivery of services from these entities. The second part is the categorisation of problems the MEs face during service delivery processes, and the factors and causes behind those problems.

The study is not about whether or not the Municipality and Municipal Entities are performing. It is rather about improving their functionalities, productivity and performance by addressing nascent problems before they have matured into full problems, with the help of an EWS. In order to use an EWS, problems and their factors and causes need to be known, so that their early warning signals can be understood and recorded. This chapter therefore discusses the various problems the Municipality and Municipal Entities experience, and the factors and causes of those problems. It is not to show that the problems are found there. The problems have been experienced and it is possible they will happen again. Discussing them is key to both understanding them and their early warning signals.

To know what problems they experience, their role, functionalities, and mandates or objectives need to be known. The following section therefore, first presents a brief introduction of the three municipal entities, their mandates and functions. Second, the problems, factors and causes of these problems are presented. And then finally, the various early warning signals are discussed.

5.2 iGoli 2002 Plan and the formation of a single-tier metropolitan system

Before 1993, there were 13 separate local government administrations in Johannesburg. These 13 administrations were divided along racial lines. Between 1993 and 1995, they were merged into five councils which were divided into two tiers. The top tier was the Greater Johannesburg Transitional Metropolitan Council (GJTMC) and the lower tiers were four independent metropolitan local councils (MLCs). After the 1995 municipal elections, the Greater Johannesburg Transitional Metropolitan Council (GJTMC) was transformed into the Greater Johannesburg Metro Council (GJMC). In 1997 the GJMC experienced a financial problem. It owed R300 million to Eskom by July 1997 but had no reserves. The MLCs were also unable to transfer revenue to the GJMC (Van Rooyen, De Wet, Marais, Korth, Thaba & Mchunu, 2009). It should be noted that at that time, many of the old municipalities called Transitional Local Councils (TLCs) were bankrupt (Atkinson, 2004).

The problem was exacerbated further by the 85 per cent reduction in the central-local government operating grant system between 1991 and 1999 (Bond, 2007), and the withholding of rates and taxes (of approximately R220 million) by the Sandton ratepayers Federation and Liberty Life dating from 1996 because of their unhappiness

with the distributive policies of the GJMC (Lipietz 2008; Wafer *et al*, 2008). While these were the immediate factors of the financial crisis, there were other underlying causes in the context. These were fragmentation and inadequate coordination, aggressive and over-ambitious spending, low revenue collection and no provision for bad debts (Allan, Gotz & Joseph, 2001).

In order to solve those crises, the iGoli 2002 plan was revealed in 1999. It was a three-year strategic plan emphasising the structural transformation of the city. Its aims were to reduce fragmentation, eliminate duplication, improve accountability, focus on human development and provide performance incentives, so that services were delivered in a cost-effective way. Moreover, it also tried to restore the city's financial health and sustainability. The rationale behind the iGoli 2002 plan was that the City would work better by combining new political structures, a core administration, regional administrations, utilities, agencies and corporatised entities (CoJ, 2002). An important component of the Igoli 2002 plan was creating a single-tier metropolitan system, called the City of Johannesburg (CoJ 2002). When the iGoli 2002 plan was made public in 1999, there was a severe negative reaction from trade unions and a number of civil society organisations. Even within the ANC and the city's administration there was some resistance. SAMWU lead a protest in 1999 of about 20,000 workers, and was party to the formation of the Anti-Privatisation Forum (APF) (Allan, Gotz & Joseph, 2001; van Rooyen, Thaba, Mchunu & Korth, 2009).

Despite protestations, in December 2000 the City of Johannesburg Metropolitan Municipality was established as a single municipality by uniting and combining the Greater Johannesburg Metropolitan Council and its substructures—the Northern, Eastern, Western, Southern Metropolitan Local Councils, and portions of Midrand and Modderfontein (CoJ, 2002). The new political governance arrangement was comprised of an executive mayor, a core administration, 11 decentralised administrative regions, 217 councillors (109 ward councillors and 108 party representative councillors), utilities (JW, City Power, and Pikitup), agencies (like the Johannesburg Road Agency and City Parks), and corporatised entities (like Metrobus, the Johannesburg Zoo, the Civic Theatre, and the Johannesburg Fresh Produce Market) (CoJ 2002). This study uses three municipal entities (or utilities) as case-studies.

5.3 Municipal entities

The City of Johannesburg (CoJ) Metropolitan Municipality provides basic services to approximately 1.4 million households for consumption by over 4.4 million citizens (approximately 8% of the total national population) through an employee base of over 25,000 employees (CoJ, 2014a, 2015). However, the CoJ does not deliver municipal services by itself, it does so through state-owned companies (SOCs), which are also called municipal entities (ME), or utilities (CoJ, 2001). Electricity is delivered by City Power. Water and sanitation are by Johannesburg Water. And refuse removal services are by Pikitup.

5.3.1 Electricity: City Power

City Power Johannesburg (SOC) Ltd (City Power) distributes electricity for the City of Johannesburg. It was established in 2000 as an independent municipal entity that is wholly owned by the City of Johannesburg. At the time of the MEs inception, in 2001, Johannesburg was the only municipality in the country that generated electricity through its own power stations. Some of these stations were later sold to private sector operators (CoJ, 2001: 96). City Power consists of six independent transmission systems (sited in Johannesburg, Randburg, Roodepoort, Sandton, Midrand and Johannesburg South), with a few minor independent load points (in Alexandra, Dainfern, Lenasia, Modderfontein and Vlakfontein), 243 power transformers are installed in the network, and there are 264 substations (CP, 2014b: 103).

The mandate of City Power from its sole shareholder, the CoJ, is to buy from two main suppliers of electricity—Eskom at 80% and Kelvin Power at 20%—and sell electricity to the citizens of Johannesburg (CP, 2014b). It should be noted that City Power is not the sole provider of electricity services for the City: Eskom services some areas in Johannesburg, predominantly Soweto and Sandton (CP, 2013a). The core function of City Power is to provide network services to all its customers within its geographical area, that includes the purchasing, distribution and sale of electricity, constructing networks, connecting customers, repair and maintenance of networks, and installation and maintenance of public lighting (CP, 2014b). Moreover, it is a responsibility of City Power to educate customers about the safe use of electricity, the

impact of cable and electricity theft and the importance of account payments (CP, 2014a).

The City Council (CoJ) regulates City Power's financial issues such as tariffs and capital expenditure, human resource issues, such as skills development, delivery targets, maintenance of assets and addressing assets, and standards of customer care, by means of a Service Delivery Agreement (CP, 2014b; CoJ, 2013a). Its performance is overseen and monitored by the Environment and Infrastructure Services Department (EISD) of the City of Johannesburg (CP, 2014b). While meter reading is done by City Power, the billing and collection of customer debt is done by the Revenue and Customer Relations Management Department (R&CRM) at the City of Johannesburg, and in cooperation with City Power (CP, 2013a: 10). At the end of June 2014, according to City Power customer invoices, it had over 410,000 conventional customers; ranging from domestic to commercial and industrial properties. These are customers that City Power billed or invoiced. There are many more active accounts of City Power that are not billed or invoiced (CP, 2014a).

On 13 May 2015, the Managing Director (MD) of City Power, Sicelo Goodwill Xulu, won the African Utility Executive of the Year Award at the African Utility Week Industry Awards for innovative and smart initiatives (i.e., the rollout of smart meters and solar geysers across Johannesburg and the introduction of smart technologies such as ripple control, load limiting and time of use) introduced and implemented by City Power that significantly improved billing accuracy, enhanced revenue generation for municipalities and contributed markedly to managing electricity usage and reducing pressure on the national grid (Bundock, 2015).

5.3.2 Water and sanitation: Johannesburg Water

Johannesburg Water SOC Ltd (JW) was incorporated on the 21 November 2000 and commenced business on 1 January 2001. It is wholly owned by the City of Johannesburg. Its mandate is to provide water and sanitation services to the citizens residing in all areas of Johannesburg, from Orange Farm in the South to Midrand in the North, Roodepoort in the West and Alexandra in the East, serving an estimated consumer base of about 4,4 million people—approximately, living in approximately 1.4 million households (JW, 2014a: 52-3; JW, 2013a: 5).

With its approximately 2,500 employees, it reticulates water to consumers through a water network of 12,581 kilometres of water pipes, 88 water reservoirs and 28 water towers. An average of 1.6 billion litres of water complying with acceptable drinking water standards—SANS (South African National Standards) 241—are distributed to the households within the city on a daily basis (JW, 2014a: 52-3). It manages wastewater through an 11,000 km wastewater network, and sewage through a total network of 11,786 kilometres of sewer pipes which is treated at six Waste Water Treatment Plants situated around the city. The amount of water it buys from Rand Water is over 1.5 billion litres per day, and the amount of sewage it treats is on average 1 billion litres per day. To ensure the quality of the water supplied, daily sampling and testing of water is carried out at the four accredited water laboratories which accounts for over 500 samples per month (JW, 2014a: 52-3).

Water is supplied to informal settlements through stand-pipes, connections to individual properties and water tanks. Sanitation services are also provided in the form of portable Ventilated Improved Pit (VIP) toilets, chemical toilets or pit latrines. During the 2013/14 FY, over 50,000 VIP toilets were desludged, 4,300 chemical toilets were provided and serviced on average twice a week and 100 million litres of water was transported to stationary tanks in the informal settlements. It is important to be aware that generally, these communities (informal settlements) do not pay for these services, which are in any case far from adequate to meet the growing demand (JW, 2014a: 52-3; CoJ, 2001).

It is Johannesburg Water's responsibility to manage 100 per cent of meter reading and billing data for the customers as well as to manage contractors that read the water meters. However, all accounts are managed by the CoJ, through Program Phakama. As with City Power, the billing and collection of customer debt is done by the Revenue and Customer Relations Management Department (R&CRM) of the City of Johannesburg (JW, 2013a: 43, 73).

In 2013, Johannesburg Water was recognised as the top performing company and best performing company in the sector from a list of 3700 private and public sector companies; as well as being the one of the best companies to work for in 2012/13 FY (JW, 2013a: 15)

5.3.3 Refuse removal: Pikitup

Pikitup Johannesburg (Pty) Limited was established in 2001 as an independent municipal entity, wholly owned by the City of Johannesburg. Its primary mandate is to provide sustainable integrated waste management services to all residential, formal and informal areas, and businesses of the City of Johannesburg, ensuring the overall cleanliness of the City's streets and open spaces and certain public areas, and preserving an attractive and hygienic environment for residents and visitors (CoJ, 2014a: 32).

There are two categories of services Pikitup provides: council services and commercial services, which is to improve its financial position (Pikitup, 2014a: 47). As council services, mandated by the City of Johannesburg, it collects and disposes of domestic waste, cleans streets, flushes lanes, cleans areas, manages litter bins, collects illegally dumped waste, collects and disposes of animal carcasses found in a public place and operates garden sites. As commercial services, it competes with other private waste management companies and provides bulk collection services, collection and disposal of hazardous waste, composting, recycling services, and services for special events and the operation of landfill sites (Pikitup, 2013a: 7). It manages and maintains 11 depots, 42 garden sites, one compost plant and four operational landfill sites. Its customer base has 741,455 domestic customers, 9,658 Business Round Collected Refuse (RCR) customers, 1,666 bulk service customers, 752 dailies, 522 institutions and several compost customers (Pikitup, 2013a: 7)

Although it is not required by the mandate to clean public sector hostels, public sector housing estates as well as informal trading areas and taxi ranks, it performs those activities at cost (Pikitup, 2013a: 6). It provides a wide range of waste management services to approximately 4.4 million people. It collects and disposes of approximately 1.2 million tons of waste annually (Pikitup, 2013a: 6).

After briefly introducing three municipal entities that provide four basic services of electricity, water, sanitation and refuse removal, their mandates and functions, the following section will provide two basic models related to the local government system and business of municipal entities. This is because understanding these two basic models is necessary to explore and see municipal problems and the factors behind these problems.

5.4 The system of local government

The municipality structure is composed of two sectors: political and administrative. Political sectors are structured with a mayoral committee and councillors, while the administrative sector is headed by a municipal manager and run by municipal employees and staff, in some instances with the help of consultants. The principle function of local government is to provide services to communities. As stated above, municipalities do not deliver municipal services by themselves, instead, services are delivered by municipal entities.

In the local government model, all decisions and planning are required to be conducted together by the municipality and the communities. The Municipal Systems Act (RSA, 2000) makes it obligatory for the public to participate in the affairs of the municipalities. It is the responsibility of municipalities to deliver services based on the needs and requirements of the communities. In order to know and understand the needs of the communities, ward committees are established with councillors and ward committee members elected by the communities to act as their representatives and present their needs and requirements to the municipal council. Section 152 of the constitution (RSA, 1996), clearly states that local government has an obligation to consult with communities, and for community participation to be part of the decision-making processes. Councillors are elected to represent and serve the community in realising people's constitutional rights to basic services (Figure 5.1).

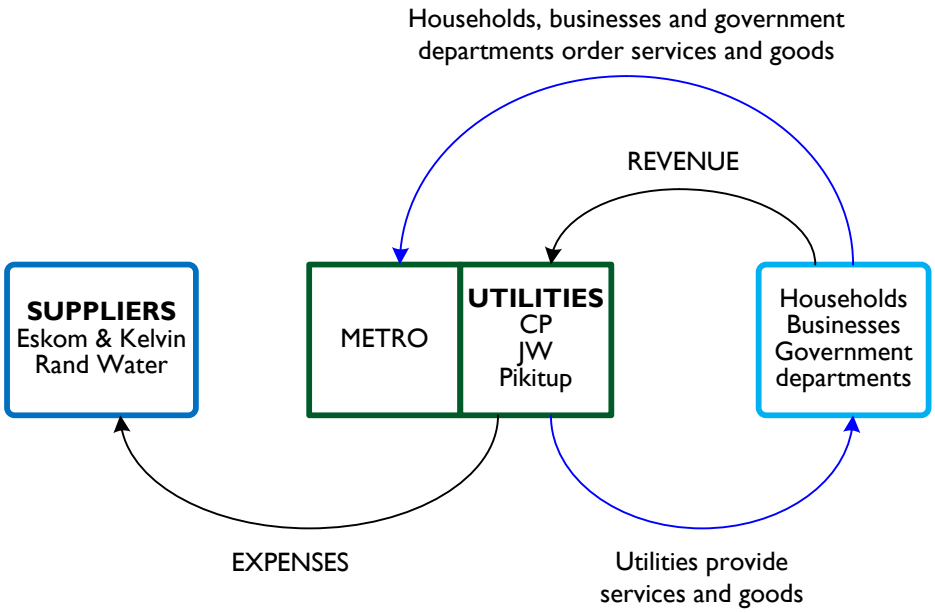
5.5 Business model of municipal entities

Its business model of municipal entities is simple: buying bulk services at low prices and selling them to communities at a higher price. Municipal entities work as middlemen and thus their business model is simple, buying goods (electricity and water) from producers (Eskom, Kelvin and Rand Water) and selling them to residents and communities. Pikitup is different from CP and JW, as it does not have to purchase services from service providers. Its expenses are mainly operational costs that consist of labour, logistics and material costs. This is a simplified model. In reality, their operations and functions are not that simple. For example, some municipal entities such as Pikitup deliver services, and moreover, all municipal entities have to deliver goods and services for free to certain sectors of communities and residents.

In the case of electricity service delivery, of City Power, bulk electricity is bought from Eskom and Kelvin and sold to residents or households, businesses and other customers that include government departments, schools and hospitals. City Power purchases 12.6 million MWh (Megawatt Hours) of electricity at c66.39 per kWh (Kilowatt Hours), and sells 8.9 million MWh (Megawatt Hours) of electricity to its customers. Bulk purchase of electricity was R8.4 bn for 2013-2014 FY (CP, 2014c: 48). The revenue from electricity sales was R12.4 bn according to City Power's Financial Statement (CP, 2014c: 45), and R12,6 bn according to City Power's Annual Report (CP, 2014a: 9).

In the case of water service delivery, of Johannesburg Water, water is delivered to residents or houses or businesses at R12/1,000 litres by Johannesburg Water as a Municipal Entity. Every day, Johannesburg Water buys an average of 1.6 billion litres of water from Rand Water at R5/1,000 litres and sells or distributes to the households within the city on a daily basis (JW, 2014a: 52-3). Rand Water buys water from the Vaal Dam at a lower price (R2/1,000 litres). But it is important to note that in these buying and selling cycles there are other costs or expenses involved, for example infrastructure maintenance, labour costs, water losses, bad debts, non-payments, and free distribution of water to indigent people.

Figure 5.1 Local government model



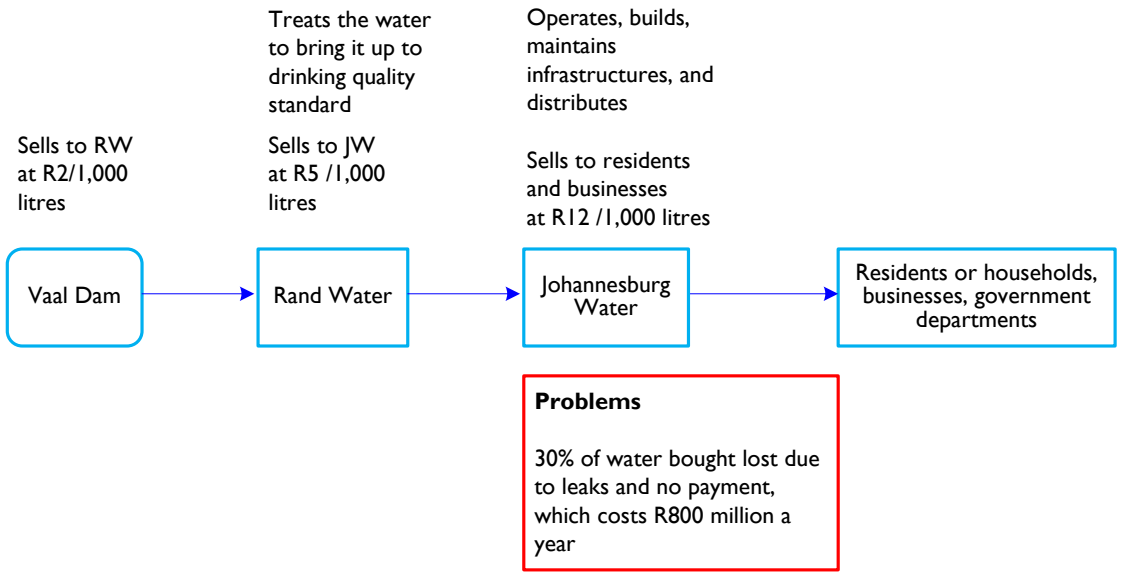
Source: My own conceptualisation

In the case of refuse removal, of Pikitup, the business cycle is a little bit different for two reasons: first, it is in a service business; and is non-profit. But the basis of its business is similar: there is a circular flow of income (revenue, property rates, or service charges) and expenses (costs for input materials, operations and labour).

Because of being natural monopolies, there is almost no way to incur financial loss in these simple businesses when procedures are followed correctly. But problems began when municipalities could not properly collect revenues for municipal services from its customers, i.e., communities, and in turn the expenses quickly exceeded the revenues. The well-known infamous example of this is the CoJ's bankruptcy around 1997 when the City was unable to pay Eskom some R300 million for bulk supply of electricity (CoJ, 2001). But it is important to understand that it was before municipal entities were established. In fact, municipal entities were established because of that financial crisis of the Coj.

There are several factors responsible for not being able to collect enough revenues to cover all expenses. One of them is the failure to collect all due revenue. Others are non-payment by the communities, and inefficiency either stemming from poor financial management, poor supervision or monitoring. However, City Power and Johannesburg Water are performing well in terms of their financial situation and service coverage.

Figure 5.2 Supply chain in water delivery



Source: My own conceptualisation

5.4.1 Performances of municipal entities

Data from document study, such as Annual Reports, Business Plans and Financial Statements of CoJ, City Power, Johannesburg Water, and Pikitup pointed out that municipal entities are doing well in terms of finances and service delivery coverage, although there are some inefficiencies and material losses in their operations. The biggest challenges the municipality and the municipalities have are poor customer service and relationship. The service coverage for four basic services are more than 90 per cent in 2013. Revenue collection rate (Revenue received versus billed) is 92 per cent in 2013, and 93.7 per cent in 2014 (CoJ, 2014a: 73) (Table 5.1).

Table 5.1 Service coverage

Revenue collection rate	**2012/13**	**2013/14**
access to electricity	90.8%	
access to sanitation	98.5%	
access to refuse collection	96.9%	
revenue collection rate (vs billed)	92%	93.7%

Source: CoJ (2013a: 14; 2014a: 158);

City Power has been making a net profit and a surplus. Since 2012, it has been making profit of more than R 1 billion. The payment level is more than 90 per cent. The problem areas are meter reading level (66 per cent in 2014) and electricity losses about 30 per cent in 2014 (Table 5.2). One problem that can be easily noticed from the following table is data credibility. There are several pairs of figures stated for the same indicators. Sources of those figures are stated in the note.

Table 5.2 Performance indicators of City Power, 2010-2014

	2010/11	**2011/12**	**2012/13**	**2013/14**
Net profit	R859m	R1.4b	R1.3b	R1.3b
Surplus (after tax expense)	R859m	R1.2b	R1.4b	R1.2b
Payment levels	86.27%	92.37%	94.77%	100.32%
Customer satisfaction	65%	65%	50.6%	66.2%
Meter reading	-	98%	78.05%	66.6%
Total losses	**19.29%**	**19.31%**	**25.59%**	**30.7%**
Technical losses	9%	9%	9%	Nil
Non-technical losses	10.29%	10.31%	16.59%	Nil

Source: CP (2014a: 17, 19, 41, 64; 2014f: 17; 2013a: 5, 10, 12; 2012a: 22, 34, 36, 44, 46, 74; 2011i: 44)

Note: The latest figures are used in the above table. When the years of the reports are the same, for example, the City Power 2014 Annual Report and the City Power Updated Business Plan 2014 – 2016, and they stated different figures for the same indicator, the figure of the Annual Report was used. There are various versions of figures and statistics stated in official reports of City Power. For example: The surplus after tax expense of City Power for 2011/12 FY was stated as R1.4 billion in its 2012 annual report (CP, 2012a: 34), and as R1.2 billion in its 2014 annual report (CP, 2014a: 17).

Similarly, the rate of customer satisfaction was stated as 50.6 per cent in the City Power 2014 Annual Report (CP, 2014a: 19), and as 56.6 per cent in the City Power Updated Business Plan 2014 – 2016 (CP, 2014f: 17).

Another case is the amount of power losses. The amount of power losses for 2011/12 FY was stated as 17.21 per cent in the City Power 2012 Annual Report (CP, 2012a: 22), and as 19.31 per cent in the City Power 2013 Annual Report (CP, 2013a: 10). For 2012/13 FY, it was stated as 30.13 per cent in the City Power 2013 Annual Report (CP, 2013a: 5), and as 25.59 per cent in the same report at page number 17 (CP, 2013a: 17) and its Updated Business Plan 2014 – 2016 (CP, 2014f: 17). For 2013/14 FY, it was stated as 30.7 per cent in the City Power 2014 Annual Report (CP, 2014a: 19), and as 30.9 per cent in its Updated Business Plan 2014 – 2016 (CP, 2014f: 17).

Different figures were also noted for non-technical losses. For 2011/12 FY, it was stated as 8.21 per cent in the City Power 2012 Annual Report (CP, 2012a: 22), and as 10.31 per cent in the City Power 2013 Annual Report (CP, 2013a: 10) (See Table 5.3).

Table 5.3 Different versions of figures (statistics) in City Power reports

	2011/12	**2012/13**	**2013/14**
Surplus (after tax expense)	R1.4b (CP, 2012a: 34) R1.2b (CP, 2014a: 17)		
Customer satisfaction		50.6% (CP, 2014a: 19) 56.6% (CP, 2014f: 17)	
Total losses	17.21% (CP, 2012a: 22) 19.31% (CP, 2013a: 10)	30.13% (CP, 2013a: 5) 25.59% (CP, 2013a: 10; 2014f: 17)	30.7% (CP, 2014a: 19) 30.9% (CP, 2014f: 17)

Non-technical losses	8.21% (CP, 2012a: 22) 10.31% (CP, 2013a: 10)		

Source: CP (2014a: 17, 19; 2014f: 17; 2013a: 5, 10; 2012a: 22, 34).

Like City Power, Johannesburg Water has been making a net profit (R 535 million in 2014) and a surplus (R 1.7 billion in 2013). Meter reading level was 87.23 per cent in 2014. Customer satisfaction level was 68 per cent in 2014. Revenue collection ratio is 78.7 per cent in 2013. One problem for Johannesburg Water is water losses (unaccounted for water): 35.7 per cent in 2014. The payment level for water was not found.

Table 5.4 Performance indicators of Johannesburg Water, 2010-2014

	2010/11	**2011/12**	**2012/13**	**2013/14**
Net profit / loss	R380 m	R585 m	R812 m	R535m
Surplus/deficit	R786 m	R1b	R1,7b	
Unaccounted for water (UFW)	39%	30.3%	28.9%	35.7%
UFW metered areas	22.01%	27.56%		
UFW un-metered areas	83.82%	37.96%		
Physical losses			13.7%	
Commercial losses			15.19%	
Customer satisfaction		62%		68%
Meter reading			New	87.23%
Revenue collection ratio			78.7%	
Debt provision			R909.8m	
Water bursts restored within 48 hours	86.49%	88.79%	88.67%	79.85%
sewer blockages cleared with 24 hours of notification	90.89%	94.11%	96.39%	94.49%
no of water pipe's burst per 100km	277.62	301.42	298.22	247.23
no of sewer blockages per 100km	356.30	384.30	418.60	428.07
Annual company performance			92.91%	

Source: JW (2014a: 24, 60, 62; 2014b; 2013a: 8, 15, 54; 2012a: 15, 18, 19, 20, 21).

It should be noted here that various versions of figures and statistics were stated in official reports of Johannesburg Water. For example: The net profit of Johannesburg Water was stated as R580 million in its 2012 annual report (JW, 2012a:15), and as R585 million in its 2013 annual report (JW, 2013a: 8 & 15). Similarly, the rate of sewer blockages cleared with 24 hours of notification was stated as 96.06 per cent in the JW 2013 Annual Report (JW, 2013a: 8), and as 96.39 per cent in the JW 2014 Annual Report (JW, 2014a: 60). Another case is the number of water pipe's burst per 100km. It was stated as 299 in the JW 2013 Annual Report (JW, 2013a: 8), and as 298.22 in the JW 2014 Annual Report (JW, 2014a: 60). In the above table (Table 5.3), the latest figures are stated.

Water Losses: Real', 'physical' or 'technical' losses include leaks from reticulation systems (especially service connections), leaks from transmission or distribution mains, and overflow and leaks from storage and balance tanks. Such leaks are often the result of poor workmanship, the use of poor materials, and the lack of maintenance (WSP–SA, 2009). 'Apparent' or 'commercial' losses include water stolen through illegal connections; water stolen for resale; water consumption undercounted by inaccurate meters; and water sales that cannot be invoiced because meter numbers cannot be accurately correlated with customer names and addresses (WSP–SA, 2009).

Unlike City Power and Johannesburg Water, Pikitup has been struggling, financially. It has been in deficit until 2014. But its revenue collection rate is now over 90 per cent in 2014.

Table 5.5 Performance indicators of Pikitup, 2012-2014

	2012/13	**2013/14**
Surplus/deficit, before taxation	(R44.89m)	R59.3m
Queries resolved within 7 days	43%	67%
Revenue collection ratio (of Pikitup's commercial customers: Revenue received versus billed)	79%	91%
Outstanding debtors order than 120 days for commercial customers	78.6%	70%
Cleanliness Level (based on CoJ standards as described in GDARD Gauteng Waste Collection)		
Inner city (level)	4	2
Outer city (level)	2 & 3	3
Hostels (level)	2	3

Source: Pikitup (2014a: 64-67, 97).

Moreover, the eight-year history of audit outcomes and Auditor General's opinions shows the gradual operational performance improvement of the municipality and municipal entities (Table 5.5). However, it does not mean that the municipality and municipal entities are perfect. There are still many areas that need to be improved and effectiveness and productivity can still be improved. It is also wise to keep in mind that the municipality and municipal entities are not there only to deliver services. Besides delivering services, there are several responsibilities and roles they have to discharge and these areas still have to be improved. In the following section, two primary problems are stated.

Table 5.6 Eight-year history audit outcomes of CoJ, CP, JW and Pikitup

Years	CoJ	City Power	Joburg Water	Pikitup
2013-14	Unqualified	Unqualified audit with matter of emphasis and other matters	Unqualified	
2012-13	Unqualified	Unqualified	Unqualified	Unqualified Audit with matters of emphasis
2011-12	Qualified	Qualified	Qualified	unqualified audit opinion, with findings
2010-11	Qualified	Unqualified	Qualified	Financially unqualified with findings
2009-10	Qualified	Qualified	Qualified	Financially unqualified with findings
2008-09	Financially unqualified with no findings	Financially unqualified with findings	Financially unqualified with findings	Financially unqualified with findings
2007-08	New consolidation	Financially unqualified with findings	Financially unqualified with findings	Financially unqualified with findings
2006-07	New consolidation	New municipal entity	New municipal entity	New municipal entity

Source: AG (2012: 88-89); CoJ (2013a); Pikitup (2014a); CP (2014a; 2011b: 21); JW (2013a; 2014a)

5.6 Two primary problems of municipality and municipal entities

The objectives and functions of municipalities, through municipal entities, are straightforward: to provide municipal services to communities efficiently and economically (RSA, 2006). This study identified two main problems in municipal service delivery: first, perception and expectation gaps, which is related to efficiency matters; and second, personality of municipality and municipal entities that communities found unpleasant.

5.6.1 Perception and expectation gaps

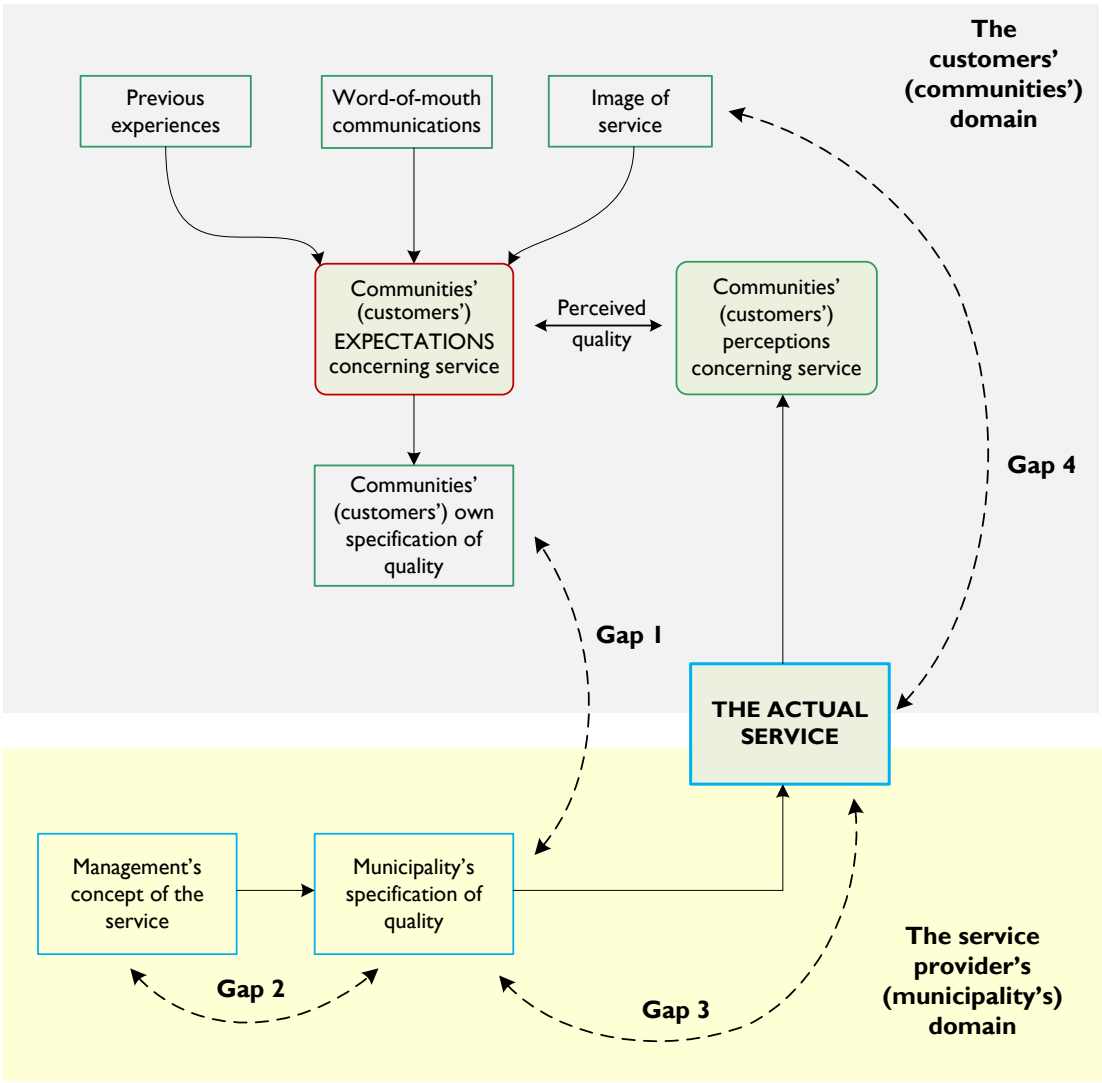
The first main problem experienced by municipal entities is communities' or residents' expectation gaps, whether perceived or actual, either on quality or quantity of municipal services. The expectation gaps occur when residents' or communities' perceptions of municipal services fail to match their expectations of it. The four gaps explanation of Pycraft *et al* (2000) is useful in trying to understand the expectation gaps between communities' perceptions of municipal service and their expectations of it. The four gaps are: first, the communities' specification – municipal entities' specification gap; second, the concept – specification gap; third, the quality specification – actual quality gap; and fourth, the actual quality – communicated image gap (Figure 5.3).

The first is the specification gap between municipalities or municipal entities and communities. These two have different specifications for the same service. In other words, it is a result of a mismatch between municipal entities' own internal quality specifications and the specifications expected by communities. For example communities and municipal entities have different specifications about municipal service. It is a result of poor communication between municipal entities (or municipality) and communities.

The second is the concept-specification gap. It is a mismatch between the product or service concept and the way the municipal entities specified the quality of service internally. For example, the government has a concept of a democratic, participatory, efficient and responsive local government system, but the specifications of municipalities and municipal entities about that concept do not match with the actual concept of the government. It is because developing specifications for a particular concept is difficult. Another example is that, the government—whether it is national, provincial or local—has a grand concept (or vision) of municipal service quality and

performance, but that grand concept (or vision) cannot be realised or achieved with the available resources and capacity municipal entities have. It is simply that the concept is unattainable at least with current capacity.

Figure 5.3 Perception and expectation gaps



Source: Pycraft *et al* (2000: 615).

The third gap is a mismatch between the actual quality of services and the internal quality specifications. It can be simply understood as an outcome of the inadequate capacity and capability of an organisation (municipalities or municipal entities) to produce the intended or set specifications. For example, a municipality or municipal entities have set certain specifications of their service, but the actual quality of service does not meet the specifications. The fourth one is a gap between the actual quality and the communicated image. It is a result of a communications or marketing failure.

For example, it is a mismatch between what politicians promise to deliver and what the municipality or municipal entities actually deliver.

5.6.2 Personality of municipalities

Another problem with municipalities, in the view of the public and communities, is the personality of the municipality. The public and communities find that municipalities have poor personality manifested in poor communication, unresponsiveness, and in lack of courtesy.

Municipalities are not only service delivery agents but are the basis for democracy and serve as a voice of their constituencies at higher levels of government, i.e., provincial and national government levels (CCRC, 2009). The Constitution (1996: Section 152) sets five objections of local government, and states that a municipality must strive, within its financial and administrative capacity, to achieve those five objects. They are: first, to provide democratic and accountable government for local communities; second, to ensure the provision of services to communities in a sustainable manner; third, to promote social and economic development; forth, to promote a safe and healthy environment; and fifth, to encourage the involvement of communities and community organisations in the matters of local government.

According to the Constitution (1996: Section 153), municipalities also have developmental duties to promote the social and economic development of the community. As developmental duties of municipalities, the Constitution (1996: Section 153) states two requirements for municipalities that are related to the structure and management of the administration, budgeting and planning processes: first, the basic needs of the community have to be given priority, and second, the social and economic development of the community have to be promoted. Thus, the public relation and customer services and cares are important components of municipal businesses. However, the customers and the public find the public relation and customer services poor and low quality. The poor customer service is the root cause of customers' anger, frustration. One respondent stated about the contacts of the CoJ and MEs that do not work, as follows

> And there are contact numbers that don't work, so it's very very hard to know what the right contact number is. You can get many of those contact numbers, but there is in fact no body answers, but just the machine does (Interview: M&EP, 22 April 2014).

One community member shared her disappointed experience with Johannesburg Water when she tried to contact them for the pipe bust. She said

> But last year (2013) in January, it will be about 18 months ago, I nearly went nearly mad, because a (water) main pipe burst and it spilled water for five days after water was rushing out into the gutter, I don't know how many time I have people from that house telephoned it was in January, there must be an emergency service when they finally came it turned out to be quite quick and easy thing to fix (Interview: M&EP, 22 April 2014).

The views on the root causes of municipal challenges and problems are differed among senior officials and managements of municipalities and municipal entities, and the communities and the public, including the low level employees and staff of municipalities. The top levels and managements of municipalities argue that the root of municipal challenges and problem is the resource constraint. They said people do not pay for service, and demands for municipal services are ever growing because of continuous migrations. But people, communities, including lower level employees and workers of municipalities believe that the root of municipal problems the managements and leaderships of municipalities and the government. The public and community members think that those high senior officials (including politicians and councillors) in municipalities and MEs are not working for the interest of people, and are not treating the communities and the public well. The public feel that they do not have a role to play in decision-making, budgeting and distribution, allocation of budgets, want a role in monitoring and evaluation. For them, the problems of municipalities and municipal entities are more about the personalities of the municipalities, that do not treat the general public and the communities members, including customers, with respect and courtesy as prescribed by the Batho Pele Principles (RSA, 1997; Interview: C2, 26 August 2014; C4, 19 February 2015; SOG1, 18 February 2015; Con, 28 January 2014; CM3, 17 June 2014; CM4, 20 September 2014).

5.7 Factors affecting the performances of MEs

Factors affecting the performances of municipalities and municipal entities were collected through studying documents, conducting interviews and focus-group discussions, and reviewing literature.

Official documents of municipal entities, such as annual reports, business plans and Auditor General Reports on each of them, as well as the CoJ's annual reports reveal wide disparities of factors affecting their performances. Official documents of City

Power revealed 108 factors (Appendix 12). Official documents of Johannesburg Water mentioned 37 factors (Appendix 13). And official documents of Pikitup stated 79 factors (Appendix 14). Similarly, the interviews and focus-group discussions identified 178 factors (Appendix 10), while the literature review exposed 141 factors (Appendix 11). Many of these factors however overlap one another (Table 5.7).

Table 5.7 Factors affecting the performances of MEs

	City Power	Joburg Water	Pikitup	Interviews	Literature review
Factors	108	37	79	178	141

5.8 Categorisation of factors

To analyse these factors, their categorisation is necessary. Since their inception, local government and municipalities have been studied widely. There is however no uniform categorisation of factors affecting municipal service delivery performance, and they are categorised in various ways. For example, in its Municipal Assessment Tool (MAT), the Department of Performance Monitoring and Evaluation, which was changed it in 2014 into the Department of Planning, Monitoring and Evaluation (DPME, 2012) used six categories: Planning, Human Resources, Financial, Service Delivery, Community Engagement, and Governance. On the other hand, in its Local Government Turnaround Strategy (LGTAS), the Department of Cooperative Governance and Traditional Affairs (CoGTA), which was changed it in 2014 into "The Department of Cooperative Government's (DCoG) used six themes, such as service delivery, spatial conditions, governance, financial management, Local Economic Development (LED), and labour relations (CoGTA, 2009).

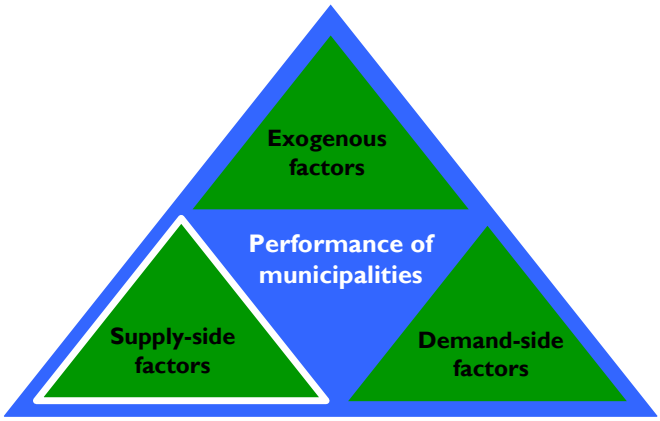
In this study, factors are divided into three main groups: exogenous, supply-side and demand-side factors. Exogenous factors are related to issues which are out of the control of municipalities, such as political, socio-economic situations that affect the performance of municipalities. Examples of exogenous factors include intergovernmental relations, regulatory complexity and burden, poverty, inequality, and unemployment. As core functions municipalities are providing municipal services to communities, two sides are involved in the municipal business cycle, providing services (supply) and receiving services (demand). These two sides are named here as supply-side and demand-side factors. Supply-side is related to municipalities and

municipal entities, which are responsible for supply services, and demand-side is about the behaviour and activities of communities and customers, i.e., their participation and cooperation, or lack of the same (Table 5.8 & Figure 5.4).

Table 5.8 Exogenous, supply-side, and demand-side factors

	City Power	Joburg Water	Pikitup	Interviews	Literature review
Exogenous	7	7	8	17	12
Supply-side	97	27	64	152	123
Demand-side	4	2	7	6	6
Total factors	**108**	**37**	**79**	**178**	**141**

Figure 5.4 Factors triangle



5.8.1 Supply-side factors

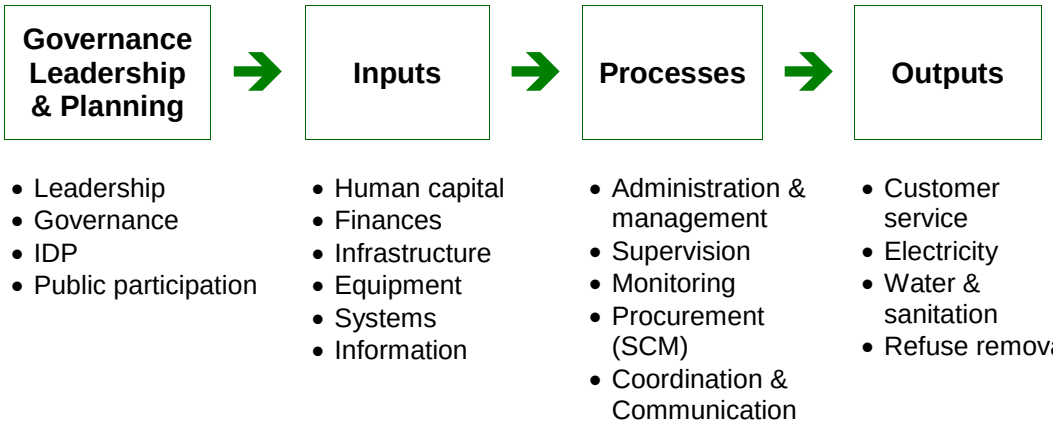
Supply-side factors are further divided into four categories: planning, inputs, processes, and outputs, using the logic model commonly used in M&E with one added category, planning. Planning category has four sub-categories (leadership, governance, IDP, public participation), inputs category has five sub-categories (human capital, finances, infrastructure, machines and tools, and information), process category has four sub-categories (administration, supervision, monitoring, and coordination and communication), and outputs category has four sub-categories (customer care, electricity, water and sanitation, and refuse removal) (Figure 5.5).

Planning factors are related to setting plans, prioritising and budgeting. Factors related to public participation are included in the planning, as the local government

system is a joint-enterprise where municipalities and communities are required to work together starting from planning through to monitoring and evaluation.

Governmental and leadership factors are also included in the planning because they play critical roles in planning and public participation, and the success of the whole planning operation as well as the process of public participation depends on the performance of governance and the leadership of municipalities. There are seven main characteristics of good governance: (1) accountable, (2) transparent, (3) following the rule of law, (4) responsive, (5) equitable and inclusive, (6) effective and efficient, and (7) participatory. Two of them are inclusive and participatory, which are two essential elements of IDP planning required by legislation.

Figure 5.5 Supply-side factors



Four hundred and forty six supply-side factors are discovered from interviews, focus group discussions, document studies, and literature review. Ninety seven factors are noted from the official documents from City Power such as its annual reports and business plans. In the same way, 27 factors from the official documents of Johannesburg Water; 64 factors from Pikitup's. Similarly, 155 factors are from the interviews and the focus group discussions; and 123 factors from the literature review (Table 5.9). The details of those factors are described in Appendix J, K, L, M & N.

Table 5.9 Supply-side factors

	City Power	Joburg Water	Pikitup	Interviews & FGD	Literature review
Planning	46	2	2	60	33
Inputs	24	15	21	36	48

Processes	24	4	29	42	37
Outputs	32	6	12	17	5
Total	**97**	**27**	**64**	**155**	**123**

5.9 Selected issues highlighted by interview respondents

The following section presents the four main issues discussed and highlighted by the interview respondents. These four issues are public participation, accountability, leadership, factors around skills shortage, fragmentation and silo-mentality. Issues around monitoring (and M&E) are presented in the next chapter (Chapter 6: M&E and EWS).

5.9.1 Public participation and IDP

Integrated Development Planning (IDP) is at the heart of the local government formation and system. It is the most important step from which all functions and processes of municipalities originated. IDP processes and approaches were developed from international experiences, for example, India, Pakistan and Ghana show that the more the public participate in the process, the more effective and successful IDP turns out to be and the less the public participate in the process, the more weak and useless IDP ends up (Stewart, 1995). The IDP process of the City used to be based on genuine public participatory in the early years of the new democratic system. One respondent shared his experience as a councillor and how they formulated the IDP, in a genuine public participatory way, in which the priorities of the community and budget allocations were discussed with and decided together with communities. He stated as follows:

> So if it goes back to genuine public participation. At that time the RDP (Redistribution and Development Programme), people-driven, people-centred development which meant you consult the people before you decide what to do, including local projects so we decide what is the priority of this community, is it a clinic or fixing a library or a road? You know, out of 20 things, you choose five priorities. So you do, based on budget. (Interview: C2, 26 August 2014).

At the beginning, the first five years of new democratic government system, public participation in local government level was working. One councillor shared his experience in public participation in the IDP process. He stated,

> when we started as councillors just all sort of participation, not participation as given in an idea, not even working, so when we started the government has a system by councillors like me have to call meetings in a kind of Brazilian people budget. So we call. [You invite people.] Yeah!, and they tell us their priorities, and then you tell them look, obviously they have so much money, so out of these money, how would you want it to be used and of course, you have to choose your priorities and people came up with the priorities for example in Soweto, there in Soweto all roads are tarred because when we started everything we were said “tar the roads”, you know, we can wait, but we just don’t want to walk in the dust as you know people wear nice shoes and they want to walk nice (laugh). So that was done. So but that process was stop (Interview: C2, 26 August 2014).

Unfortunately, it is no longer done in that way: the IDP and the public participation processes become just a formality or ritual. Community meetings are used just to conform with legislative requirement—just to be able to tick the boxes of compliance—rather than to listen to the views, concerns and requirements of communities and integrate (that) community feedback and requirements into the IDP (Interviews: C2, 26 August 2014; C4, 19 Feb 2015; CM5, 6 Feb 2015; M&EP, 22 April 2014).

> But obviously, if the participation is going to be genuine so you can’t just decide on a budget allocation for you as Area A when there are 20 other areas. There must be a forum where all the areas come together, look at the cake, you know, to cut a cake (Interview: C2, 26 August 2014).

IDP and public participation are related and one cannot separate it with another. Without meaningful public participation, the IDP does not have its true essence and meaning. It is because the fundamental idea of local government rests on the inclusion of communities in all municipal affairs as local government is regarded as a joint-business where communities or the public are the most important stakeholder. The Constitution and legislation related to local government and municipalities state, repeatedly and over-lappingly, that municipalities have to involve the public and the communities in all stages of their affairs and business.

Section 152 of the Constitution (Act 108 of 1996) outlines five objectives of local government. The fifth one is “encourage the involvement of communities and community organisations in the matters of local government”. The other four objectives are: a) provide democratic and accountable government for local communities; b) ensure the provision of services to communities in a sustainable manner; c) promote social and economic development; d) promote a safe and healthy environment. Similarly, Section 19 of the Municipal Structures Act requires all municipal councils to conduct annual reviews on the needs of the community; its

priorities to meet those needs; the processes for involving the community; its organisational and delivery mechanisms for meeting the needs of the community; and its overall performance in achieving the objectives. It also further states that municipal councils must develop mechanisms to consult the community and community organisations in performing its functions and exercising its powers. Moreover, in Chapter 4, Section 16, of the Local Government Municipal System Act (Act 23 of 2000) (LGMSA) there is a section titled 'the development of a culture of community participation'. According to the LGMSA, a municipality has to develop a culture of municipal governance that complements formal representative government with a system of participatory governance.

In terms of the LGMSA (Chapter 6), it is not only in planning and the formulation of an IDP that the community and public participate, but also in the establishment, implementation and review of the performance management system, which includes monitoring and reviewing of municipal performances. Furthermore, according to Chapter 8 of the LGMSA, communities are entitled and required by the LGMSA to be actively involved in the preparation of the budget and strategic decisions related to the municipal service delivery provisions. In addition, the LGMSA states that in order to be able to actively participate in municipal affairs and business, the capacities of communities have to be built and it is the responsibility of municipalities in that community to develop capacity-building processes.

However, public participation is one of the most serious problems the municipalities are facing and, the main complaint made by communities is the "anti-democratic or anti-participatory tradition" of IDP processes, which include lack of involvement of the whole community in IDP meetings; people or communities are invited to IDP meetings and processes; even if people are invited and included in the meetings, they are not all allowed to talk and discuss things in an IDP meeting, where the City presents their plans, most of them are incomprehensible or too complex for community members (Interview: M&EP, 22 April 2014); the City's unresponsiveness for example when communities submit their IDP but do not get replies from the City, and the community's feedback is not included in the IDP; lack of briefing and reporting from City to communities about projects and programmes in their communities; unresponsiveness to councillors about their communities' information, projects and programmes (Interview: M&EP, 22 April 2014; C3, 23 January 2015).

These wards form the basic units for participatory and democratic local government. Ward committees are established for each ward in all provinces except the Western Cape. Ward councillors chair these committees and ought to rely on them for support in ensuring that the issues and needs of residents are well represented in the municipal councils. Each ward committee consists of the elected ward councillor and 10 additional members nominated from the community. It is more than 40,000 people involved in ward committees around the greater metropolitan municipality, to promote community representation and participation (CoGTA, 2009b). Besides promoting community representation and participation, the ward councillors are required to serve as a link between the ward community and the rest of government to the extent to which there is proper consultation with local communities with respect to the planning and implementation of provincial and national programmes impacting on the ward. However in practice sector departments hardly ever consult or involve ward councillors in plans and projects (CoGTA, 2009b).

However, the problem with community participation starts from those ward committees. One respondent discussed the problems related to forming ward committees, as follows:

> The problem starts here. These ward committee members, they are not from the sectors. They are not from the sectors they represent. You are representing for sport, but you are not a sporting coach, not from any sports team, you don't play football, you don't play soccer, you don't play anything. So you are not representing the sport. Some of them they come from political parties and they are now competing with councillors. They are not advising the councillor. They are now competing with the councillor. They see themselves as better than the councillor. That is how they are supposed to work but currently they are not working because meetings are not taking place. Those meetings are supposed to empower councillors when they go the Council (Interview: C4, 19 February 2015).

That statement is in line with the findings of CoGTA's (2009b) the State of the Local Government Report that stated "with respect to functionality, some assessment reports cited claim that many Ward Councillors do not even attend Ward Committee meetings, and poorly resourced Ward Committees are failing to comply with expectations. Further, Ward Committee issues often do not find their way into, or are not prioritised in Council meetings, and thus fail to become reflected in the IDPs of municipalities and project implementation for basic services can be non-consultative, biased or ad-hoc" (CoGTA, 2009b: 15). That point was supported by one respondent, a ward councillor, who stated that she always submits the IDP Submission for her

ward, but the IDP of the Municipality (CoJ) does not take account of her ward IDP submission and does not include issues and plans made in her ward IDP (Interview: C3, 23 January 2015). A very similar discussion was also reported by another respondent, a representative for civil society and an M&E practitioner (Interview: M&EP, 22 April 2014):

One of the important components in local government communication is to have contact with the communities. The establishment and existence of ward committees is intended to have and use the lines of communication. Public participation cannot be achieved without communication (Bonga, 2007). One of the most common and frequent complaints communities express is the lack of communication from the municipality. Communities feel that the municipality as well as councillors are not responsive to their concerns, needs and wishes (Atkinson, 2007). From the document studies and interviews, it repeatedly appeared that the communication and engagement of the municipality with the community is weak and clearly insufficient. The community are not happy with the way the municipality engages and communicates with them especially about the conditions of delivery services.

> These are things that cause of anger. Recently the government now got something for the community based planning and they are piloting it and it involves the ward councillors and the ward committee but instead of involving the whole community they will actually involve representatives of different sectors, whether youth or women, they gather in the meeting and they will come up with projects. So it is not the best, but even so those projects are sometime finished and written up and given to the IDP office. When the IDP is finally drafted people come to those meetings and see those projects are not there (Interview: M&EP, 22 April 2014).

Projects proposed and presented by the community are not in the final draft of the DIP, it is supported by another councillor who also submits their IDP and when the City finalises the DIP, their projects are not included in it (Interview: C3, 23 January 2015).

For example, when water outage happens, the complaint of the community is not about the water outage, but about the lack of reporting or communication either by Johannesburg Water or the Municipality (CoJ) (Interview: CM 2, 11 April 2014; M&EP, 22 April 2014).

One respondent shared his experience related to public participation in municipal planning. He said the municipality promised to start some projects for the community,

but eight months passed and nothing had happened. The community did not get any feedback from the municipality. People want to hear what is happening to those projects. And he suggests a proper participation system and model for it.

> It should be designed and should be a clear manual form and that participation should find ways of involving the whole range of community and their priorities and those priorities should be taken up to be included in the Integrated Development Plan (Interview: M&EP, 22 April 2014).

Another problem is the holding of ward committee meetings only with people who are close to ward councillors, rather than all community members who are willing and available to attend and participate there. One respondent stated that:

> The ward councillor means to be elected by the constitutional basis to be accountable but also the ward councillors sometime hold meetings with representatives and invite people to closer to the ward councillors both in terms of patronage closer and also in terms of political party they belong to, and other people don't get invitations. So, again you can see that the democratic system at that level is not being run very well (Interview: M&EP, 22 April 2014).

That point was supported by another respondent who was a councillor. He said:

> The public participation mechanism is not working well now. We have IDP. They invite people, but I think, how can I say? It is too much of about the ritual, or compliance. There are more inputs from administrators than from communities (Interview: C2, 26 August 2014).

Irresponsiveness is another personality of the municipality that make communities angry and frustrated. The people and the public are named by the constitution and legislation as the owners and the major stakeholders of municipalities. But the City is, in many communities and public, neither cooperating nor communicating with communities. One respondent stated their frustration caused by the City's irresponsiveness as follows:

> In many cases, they send the community development workers to take messages and they themselves come back without the replies (Interview: M&EP, 22 April 2014).

Public participation is an essential part of the local government system. It is more necessary when there is resource constraint. One councillor stated it in an illustrative way, as follows:

> As a councillor, I said, no, comrades I think when they are lacking money all the more reason to consult. You know what I mean. When you and I have R10, we can buy beer but we only have R10. You must decide, Comrades what will we buy. Yes, we have to consult. So, yeah!, yeah!, okay we will buy bread. Okay. It is not that what happened, obviously (Interview: C2, 26 August 2014).

Because of these kinds of personalities and their behaviour, municipalities and local government as a whole are regarded by communities and the public as dis-functional non-performing, under-performing, irresponsible, irresponsive, rude, and uncaring.

5.9.2 Accountability: Governance and internal Control

An interesting and important finding revealed by this study is about the cause of weak or lack of accountability. For the people to hold, employees and management accountable is difficult, but three respondents pointed out that the lack of accountability in an institution is also good for people who want or take advantage of that situation, i.e., unaccountable state or condition, as they can easily engage in corruption or unlawful activities. One respondent said that "The reason why they are not accountable is that they set up a structure, procedure and system which prevents them from being accountable" (Interview: C2, 26 August 2014). A similar view was expressed by a former senior manager of the CoJ (Interview: SOG1, 18 February 2015).

This point was supported by another respondent who is in a management position in local government. That discussion was made at the Presidential Local Government Summit held in Midrand, Johannesburg, on 18 September 2014. When one of his employees was not performing his tasks and responsibilities, he wanted to take disciplinary action against that employee but he could not do so without the agreement of his senior, a political one, and the problem is that his senior appointed that employee, and also connected with him politically, and, so, he did not want to take a disciplinary action.

One respondent said that lack of accountability is prevalent across the whole country. He lamented as follows:

> It (lack of accountability) is a deep thing. We don't call people to account easily as a country. It is a very strong thing about talking about corruption, and strong thing about you would have another chance. And you have another chance, you still don't succeed and you get yet another chance (Interview: SOG1, 18 February 2015).

He then discuss about various factors and why taking disciplinary action is not conducted:

> It (accountability) is weak. It is one thing we don't hold people accountable. It is because for some reasons HR department, everywhere, all hopeless. So there, to discipline someone on

> performance, you have to get all paper work ordered. You agreed this is your targets, you fail to achieve the targets. I gave you a chance to improve, you failed to improve. You get a document all of that. And you can demote the person or whatever, dismiss or something. But you have to run all through. And you have to have an hearing and everything. That's too much work, well. And Human resource department all has to keep these information. And they don't. So, whenever there is a serious problem, you can start launching a case, and it falls apart, so the manager doesn't bother, why? Because he knows he gonna will fail. And then, it's very hard (Interview: SOG1, 18 February 2015).

Another dimension of the lack of, or weak, accountability issue is related to several other issues such as the strong politicised nature of an institution, weak governance, and weak enforcement in the forms of weak internal controls and supervision, lack of interest of the leadership and management in taking disciplinary action against people who transgress.

Weak accountability is also at the root of poor performance of service providers and consultants, who are selected and given municipal contracts and projects. One respondent discussed how contracts are given:

> Also sometime, things are contracted out because you're going to get bribes for that. You got the people inside and hard to manage the people inside. If I outsource things I will get money in my pocket, and even if performance is not going to be improved (Interview: SOG1, 18 February 2015).

With proper accountability and a good governance system, such practices would not happen and would not be tolerated if they did.

Accountability is indispensable for any organisation, or department, or even a government. Without a functioning accountability system, all legislation and regulations would not have any effect. Weak accountability and lack of consequences for non-performance or poor performance are among the most critical challenges the municipalities have. One respondent, who is a community organiser as well as an M&E practitioner, stated as follows:

> In South Africa one of the problems at the moment is the political leadership, political office bearers and their powers, in relation to the power the administration is not clearly defined. The roles are not clearly defined. For example, the political players can have a big say who is the point in position in filling the way down in the administration. It is a big problem. And without being that fixed, you are not going to have the

> responsible local government that is accountable (Interview: M&EP, 22 April 2014).

However, there is a little good news about these issues. A respondent, who is a high level officer from SALGA (the South African Local Government Association), stated in a focus group discussion that the issue of lack of consequences for wrong-doers or non-performance has been addressed seriously since 2014 and there have been several disciplinary cases that have been actioned (FGD, 23 June 2014).

One respondent linked the issue of lack of accountability and community non-payment for services.

> Accountability for service delivery is stronger when you use money collected from local population who will be holding you accountable on how you used with their money. But you don't have to face it when you use grants from the National Treasury. Strong local accountability can only have when you have revenues from local population (FGD, 24 November 2014).

5.9.3 Leadership and political will

A respondent who participated in a focus group discussion remarked that "South Africa is rich not only in terms of resources but also legislation and policies but it lack political will" (FGD, 24 November 2014). "Running a municipality is a real job", as one participant in a focus-group discussion said (FGD, 24 November 2014).

One of the common discussions about sources of municipal problems is weak (or bad) leadership. One respondent stated leaderships are not interested in delivery services.

> They are not there to delivery services. They are there to get rich. To me, what has been happening is especially since 2008 there is a way of this stuff. Basically people are joining council for only one reason and that is a self-enrichment kind of reason. That is generalisation. There are obviously some people are not like that. But there are massive in real like that (Interview: SOG1, 18 February 2015).

The competency and understanding of leadership is important. It was widely accepted that most of the municipal problems originated from poor governance and weak leadership. It might be argued that there is a direct relationship between the performance or competency of leadership and the performance of an organisation or department. One respondent who held a senior position in the CoJ for about eight years, stated as follows:

> Politicians need to know and understand their work. It has to start with the head. Since 2011, the financial situation of Joburg improved. It was started with having a politician who is also an accountant as the head of finance department. He can manage both sides of the department: political and administrative sides. Generally, politicians need to be told the importance of accounting (Interview: SOG1, 18 February 2015).

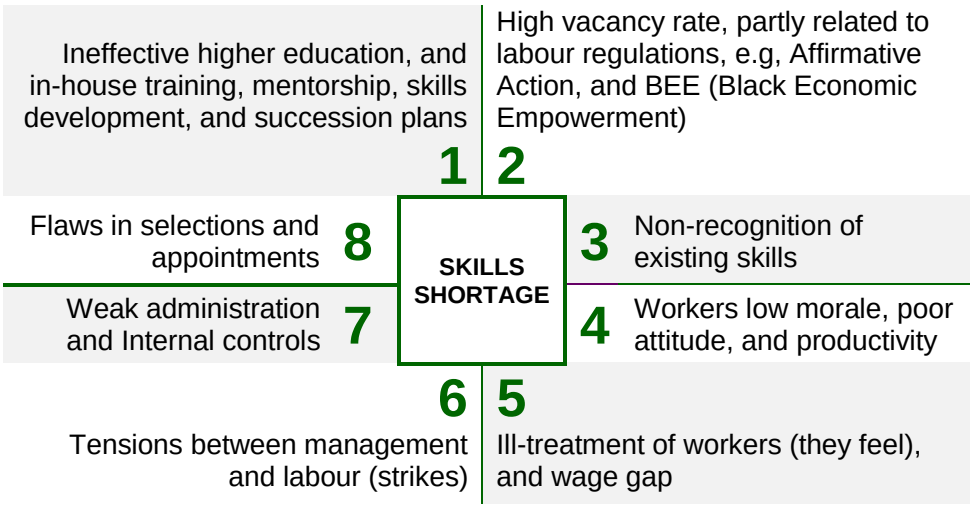
Lack of understanding about finance is one of the weaknesses most politicians have. Out of ignorance, politicians tend to make planning with unrealistic projects and targets. He then shared his experience of making planning with politicians. He stated:

> IDP is from politicians, and are sometimes very ambitious (I said wow, how are you going to finance these projects), at the end of IDP document, there are list of projects saying subjected to available fund. But national treasury does not allow projects without fund. They change their budget at every council meeting. Plan and budgets have to take account of the past executions and implementations. Sometime they don't and their plan and budgets becomes very unrealistic (Interview: SOG1, 18 February 2015).

5.9.4 Dimensions of skills shortage problem

Skills shortage is one of the paramount challenges not only local government has to face but also all departments in provincial and national governments as well as the private sector have to address and overcome. Moreover, it is not just a problem South Africa alone is struggling with, but all Southern African countries and the whole world has to deal with it (for example see The Hays Global Skills Index 2012; Kigotho, 2014).

Figure 5.6 Eight dimensions of skills shortages



Eight dimensions of skills shortage issues were revealed from this study through interviews, focus-group discussions and document study. These dimensions are: **first**, lack of performance of higher education as a whole country, and in-house trainings, mentorship, and skills development of municipalities, as well as lack of succession plans for technical and skilled posts (Interview: C4, 19 February 2015; FGD, 24 November 2014); **second**, high vacancy rates, which is regarded as related to the labour regulations such as Affirmative Action and BEE (Black Economic Empowerment) (CP, 2014b; Interview: C3, 23 January 2015); **third**, non- recognition of existing skills in the workforce (Interview: C4, 19 February 2015); **forth**, workers low morale and productivity, probably an outcome of non-recognition of workers' knowledge, experience, skills and value or usefulness, especially of lower level workers who do not have formal education (Interview: C2, 26 August 2014; SOCoJ6, 9 April 2014); **fifth**, workers' feeling and perception that they are ill-treated, which is reinforced by a wide wage gap between the wages and allowances of top level management and those of middle level and lower level workers (SAMWU, 2015; Interview: C2, 26 August 2014); **sixth**, the tensions between management and labour, which cause incidences of strikes and labour protests (Interview: C2, 26 August 2014; SOME1, 13 November 2014); **seventh**, weak administration and internal controls that cause inefficiency and poor productivity of workers (Interview: SOG1, 18 February 2015; C4, 19 February 2015); and **eighth**, flaws in selections and appointments, that appoint unqualified or inappropriate workers and employees (FGD, 24 November 2014; Interview: C4 February 2015).

The skills shortage issue of municipalities in South Africa can be understood as an outcome or result of the poor performance and qualities of South African higher education and training (Breier & Erasmus, 2009; Kigotho, 2014; Mateus, Allen-Ile & Iwu, 2014; Selisho, 2015). According to the Global Competitiveness Index of the World Economic Forum's 2014/2015 report, in higher education and training, South Africa ranked last in the quality of mathematics and science education. It was at 140 out of 144 countries studied and listed in the Index, for the quality of its education system. Furthermore, as a result of it, in terms of labour market efficiency, South Africa ranked last in co-operation in labour-employer relations and 143 out of 144 for hiring and firing practices. But it is necessary to state that South Africa did very well in some areas such as the strength of auditing and reporting standards, and financial markets development: it ranked number one for the strength of auditing and reporting

standards. In financial markets development, it came first in the regulation of the securities exchange (World Economic Forum, 2015).

Another factor responsible for the skills shortage in municipalities is inadequate training or mentorship programmes within municipalities or municipal entities. One respondent in a focus group discussion, a senior manager at the CoJ, said “We never train our staff. We don’t train them enough” (FGD, 24 November 2014).

Skills shortage is also cited as a cause of high vacancy rates in many government departments and utilities, such as City Power and Johannesburg Water. City Power has a vacancy rate of 58.1 per cent (as of 15 May 2014). It establishes 3,868 positions but has only filled 1,624. The rest, 2.244 positions are still vacant (CP, 2014b: 36). Moreover, the City Power Business Plan for 2014-2016 states that technical training has been left in the hands of the private sector for a long time. Municipalities do not perform training to suit their particular needs. All training facilities have not been utilised optimally. Structured, detailed and forward focussed training is very limited at this stage (CP, 2014B: 38). As a result of this high vacancy rate, capacity is constrained (insufficient) and service delivery is affected adversely. Joubert (2009) remarks that no matter how perfectly formulated policies are, with such high vacancy rates currently experienced in many government departments, it is impossible to implement those excellent policies.

Another issue related to human capital or human resource of municipalities is the low morale of municipal staff and employees. From interviews, the discovery of feelings—or perhaps just perceptions—of municipal staff and employees about the treatment they receive from the City Council as their employer and the municipal leadership and management was revealed. One respondent, a senior manager at the City, said that they are not treated well and the skills and expertise they have learnt they are not able to use in their employment (Interview: SOCoJ6, 9 April 2014). Another respondent, who was a councillor, elaborated on how municipal staff and employees especially who are at the front-line, and at the lower level.

> They are at the front line, meeting with community. They are quite key. But in terms of salary structure, in terms of benefits, they are dead bottom. They are looked down upon. They are humiliated. In the views of the City and the management of the municipality, they are nothing… They are the most important, because they are dealing with communities like customers and patients. ..They [the City, the leadership and the management] don’t want to integrate or recognise people, well, but

> offend them like as a low rank, so it is not good, you know… the salary they are getting is the lowest so they are offended at the bottom (Interview: C2, 26 August 2014).

In his view, resource constraint is not a reason for paying low salary to municipal workers at the lower levels. He continued:

> They have not because of resource constraint, because they are taking a lot of money at the top. But they don't want to pay to them [municipal staff at lowest levels who are doing the most essential and difficult works of providing services to communities (Interview: C2, 26 August 2014).

The salary gap among top employees or bosses of municipalities and common and ordinary municipal staff is wide. The South African Municipal Workers' Union (SAMWU) has been trying to negotiate to pay municipal employees and staff the minimum salary of R4,000, while the pay of municipal managers has to be capped because of growing to the point that is higher than the salary of the President (SAMWU, 2015).

One respondent, a former senior manager in the finance department of the CoJ, also talked about the ill-treatment municipal workers received from the City. He said, quite succinctly that,

> It is tough place to work, Joburg Municipality, is very hard. It doesn't treat staff well. Almost all organisations don't. And why that is, I don't know (Interview: SOG1, 18 February 2015).

Not only municipal workers feel they are not treated well by the leadership and management of the CoJ, as well as Municipal Entities, but also even councillors feel that they are not treated well by the Council neither. The perceptions and feelings of the general public and community members, as well as customers of municipal services are perceived in the same way as municipal workers and marginalised councillors.

Employment of unqualified people can lower workers morale and work ethics, because when they have to work together with unqualified persons, they have to do more work because of that unqualified co-worker (Mathis, K. 2004: 12). The situation becomes worse if that unqualified person is appointed as a leader. One respondent related about a municipal worker who resigned because the municipality appointed an unqualified person above him (as his senior, while that person does not understand the work) (Interview: CM4, 20 September 2014).

Many respondents suggested that it is more about attitude than skills. One respondent, who is a researcher as well as an active politician, raised an interesting question, relating to the issue of skills shortage: He asked "What kinds of skills do they need to read meters correctly and accurately?" (Interview: R, 1 May 2014). According to him, he said, it is more about attitude, workmanship, internal control and supervision, rather than skills shortage.

Another respondent also made the same point. He said

> This is a 'Cultural' problem and a Training Problem….the culture is often one of – Take the shortest/cheapest route – that one can get away with when 'delivering' a job/contract. Or, do the least amount of work that one can get away with. There is little culture of Pride in ones work in SA. There is little culture of 'Excellence' in ones work. Compare our 'work' culture with the Japanese work Culture (Interview: CM3, 17 June 2014).

The same point was also made by Gumede (2015) at a conversation entitled "Lessons in China's reform of its state-owned enterprises", at Wits School of Governance, on 19 August 2015, Wednesday. He asked "what kind of skills set is necessary?" He holds that it is more about attitude and a culture of trying to do well in one's work and taking pride in getting work done well. He also gave examples of Japanese and Korean workers who take pride in their performance.

One respondent, who is municipal senior staff, and participated in a focus-group discussion, ardently said that "there is no skills shortage. Most of us are highly educated" (FGD, 23 June 2014). It is true because she herself, together with several her colleagues from the municipality, is currently completing her post-graduate degrees at the Wits School of Governance and Wits Business School. According to her, the problems of the municipality related to skills shortage issues is about the lack of understanding and experience of councillors and political appointees who are elected or appointed based on political reasons rather than their competencies and qualification. That point was made, albeit quite obscurely, by Elcock (1994)—his observation or remark was stated in Chapter 3. That point was also supported by another respondent, a councillor, who stated:

> As politicians, you can take anybody else. Consider you are a MMC (Member of the Mayoral Committee) or minister of something you don't have that experiences. You have never been in police, and you are the minister of police. You are managing police who have been trained and are doing all those things. What happens to you? You are relying on all

> information given by management to assist you (Interview: C4, 19 February 2015).

One participant in the focus-group discussion stated that “the role of politicians is to represent the interests of the people; it's clear that they're not necessarily qualified to run the day-to-day operations in a city like Joburg” (FGD, 23 June 2014).

Another interesting phenomenon stated by one respondent is the exploitative move taken by some municipal senior technicians and staff who had long working experiences in the City and accumulated much specialised knowledge of municipal infrastructure designs and design, and a wide range of connections or networking through working life in the municipality (Interview: C2, 26 August 2014; C4, 19 February 2014). Working and performing municipal functionalities and operations requires more than educational training or qualifications. One respondent said “You can’t bring bright boys and girls and expect them to do good work. It needs working experience and institutional memory to perform properly in municipal work and projects. He continued that another related issue is about non-recognition of existing skills in the municipalities and not recognising employees and workers who have extensive knowledge and experience, but lack the formal educational qualification. The municipality not only does not recognise their value but also does not treat them well as valuable employees (Interview: C2, 26 August 2014; SOG1, 18 February 2014; SOCoJ6, 9 April 2014).

Non-recognition of existing skills, other respondents also point out about it, in the focus-group discussion, in an interview with a deputy director, and a councillor, with an ex-employee who resigned because a person was appointed above him as his supervisor but who does not have any skills and does not know about the job (Interview: SOCoJ6, 9 April 2014; SOG1, 18 February 2014; C2, 26 August 2014; CM4, 20 September 2014). The respondent said

> They [municipal management and leadership] only know that engineers have skills, but workers also know and have skills too. Engineers only know which workers he has to ask. *Hey Harry, where did you put the valve?* This is it here, sir. Workers are the real staff who do the jobs. We short change ourselves by not recognising the skills and knowledge of workers. And then we treat them as people who don’t know anything. And also when we pay them little money, treat them badly, they lost morale, and also withhold their information (Interview: C2, 26 August 2014).

The necessary skills, knowledge and experience necessary to run and maintain all the municipal systems and processes could not be attained within a few years. It takes many years of working experience. One respondent stated that "it is not that there are no skills but people with skills exploit the system to get more money" (Interview: C2, 26 August 2014). Those municipal employees with years of working experience and extensive knowledge about municipal working systems, infrastructure designs and plans retired, knowing that new employees and staff could not work without their knowledge and skills, so that the City has no other way but to hire them as consultants at higher fees. The respondent elaborated as follow

> … so engineers would rather work for companies providing services to the government, like work for the government, because they gonna make more money. Many public servants they resigned and they run and set up as consultants. And they sell their services back at a higher premium. That happened. Accounts, engineers, land surveyors. So they are able to be within the system. Okay, with government, it still has counted a lot. So let's say, water engineer, who has been working for the council for 20 years. So that guy, he knows where valves are, he knows what are the problem pipes, the institutional knowledge and memory. So even when he resigned, or retired, they (the City) still need his knowledge. So he will resign, knowing that they would hire him as a consultant. There are a lot of that happening. They know the system how to earn more money (Interview: C2, 26 August 2014).

According to Auditor General's report on local government (MFMA 2014/2015), nationally 68 per cent of the municipalities used consultancy services to prepare financial statements and underlying records. Consultancy costs just for financial reporting services was R892 million in 2014-15 (AG, 2016). The City of Johannesburg spent more than R4b on consultants each year. In the 2014-15 financial year, it was R4.36bn (Dlamini, 2015), which is over 50 per cent of the total employee costs including councillor remuneration (R8.56b) in the same financial year (CoJ, 2016: 195).

Moreover, what is interesting is that the CoJ does not write its Integrated Annual Report itself, although it has 28,248 employees across the various sections (CoJ, 2016: 187). On 1 July 2014, the City of Johannesburg requested a quotation for Research and Compilation of its Integrated Annual Report for 2013/14 (CoJ, 2014b; See Appendix T). One of the concerns related to the quality of work provided by consultants is an ethical issue. The Centre for Public Participation had discovered that five IDPs in different municipalities in KwaZulu Natal were identical (Pienaar &

Geldenbloem, 2013). In his MFMA 2014-15 Report, the Auditor General (2016: 27) observes that the over-reliance on consultants is a warning signal of a lack of capacity and skills in municipalities.

Flawed selection and appointments not only performance and productivity problems, as those employees are not qualified to do their jobs, but this also affects the other workers morale, as people appointed above them do not know what they are doing, although those persons are their supervisors or team leaders.

> I know one young man who worked at Johannesburg municipality he is a water engineer and he became so frustrated because somebody was appointed above him somebody who knew nothing about water engineering I think he kept staying there for a couple of years. Then and he could not take it anymore he started working at a restaurant (Interview: CM4, 20 September 2014).

What another respondent, a lecturer who has been studying and researching municipalities for many years, said is more disturbing. He said “They are deliberately making things difficult. They only have people who don’t question: I found it very distracting” (FDG, 24 November 2014).

A participant from a focus-group discussion, who is municipal staff, also made a similar point, but it was about councillors who have no knowledge or understanding about what the municipality is doing. She said it is not that there are no skills in municipalities. Municipal employees are educated and qualified. But the real problem is about councillors’ lack of understanding and knowledge, and lack of institutional memory. It was exacerbated by high turnover rates of councillors. According to her, the turnover rate of councillors is about 70%. More than two thirds of councillors are new-comers (FDG, 23 June 2014).

5.10 From factors to early warning signals

After understanding the problems and factors that negatively affect the performance of municipal service delivery processes, it is essential to assimilate their early warning signs, which are the lifeblood of an EWS. Too often, municipalities and MOEs experience problems that could be prevented or addressed at an early stage of the problem’s development. But managers and responsible persons and stakeholders failed to see early signs of these problems because they have not learnt to spot the early warning signs of problems and therefore were not prepared or ill-equipped when

trouble arose. The obvious signs of municipal problems and troubles are rarely the root causes. Skills shortages or the lack of tools or resources, or tensions in workforce relationships, for example, are not the problem. They are just the result of other problems.

Failure to recognise deteriorating characteristics, or even taking too long to understand or take note of early warning signs of incoming problems and troubles causes municipalities, MOEs and all stake-holders involved unnecessary costs and expenses. Solving or addressing problems that are at their beginning stage is easier and less costly to solve. By recognising some early warning signs of problems and troubles on the horizon, the municipality and MOEs can pre-empt or eliminate them, or at least, reduce the intensity of those problems and challenges.

Problems and factors are sometime interrelated and some problems are also early warning signals of other problems. Problems and challenges that individual municipalities have to face, address and solve, occur repeatedly and are quite similar from one municipality to another. Although there are contextual differences, the functions and processes of municipalities as well as the services that municipalities provide to their community members are largely the same. In the same vein, the services a municipality provides to its community members are not changed from one year to another. The discussions on early warning signals and the integration of early warning system into an M&E framework are presented in the Chapter 6.

5.11 Conclusion

This chapter presented a brief introduction of three municipal entities and their mandates and functions. The system of local government and business model of municipal entities were also discussed. The categorisation of factors revealed from data was described and selected issues highlighted by interview respondents were presented. The rational for exploring those factors is to determine whether there are early warning signs indicating that some problems are developing. Those factors have to be understood because the focus of this study is an EWS (Early Warning System) in the Municipal M&E system. The findings of this study revealed two primary problems of the municipal service delivery processes: first, there are quality gaps between the communities' and public's expectations of municipal services and the actual quantities and qualities of services provided by the municipality and its contractors. A new way of factor categorisation was devised and used in this study

and thesis, as there has been no uniform categorisation or classification of factors related to municipal service delivery challenges—different studies use different categories and groupings of factors.

There are two main points this chapter highlights: first, municipal challenges are more related to the psychological aspect of municipal service delivery processes, rather than the quantities or levels of municipal services—which are adequate compared to internal standards. Second, the new way of factor categorisation which is based on steps in M&E processes, so those factors could be better monitored and checked through M&E. In the next chapter, the municipal M&E system will be presented and will describe to what extent the M&E system serves as an EWS.

Chapter 6

M&E and EARLY WARNING SYSTEM

This chapter presents the findings on the current Monitoring and Evaluation (M&E) system and practices of the City of Johannesburg (CoJ) and its three municipal entities (MEs). There are two chapters in this thesis that discuss about M&E and Early Warning System (EWS). They are Chapter 2 and this chapter (Chapter 6). The difference between these two chapters is that chapter 2 serves as a literature review related to M&E and EWS (i.e., presenting information, discussions, data and figures came from literature), and this chapter is findings of this study related to the current M&E system of the CoJ and its three MEs (i.e., presenting data and information revealed by this study through interviews, focus group discussion and document analysis, and data-analysis.

In the same vein, this thesis has two chapters that present the findings: this chapter and the previous one (Chapter 5). Again, the difference between these two chapters is that chapter 5 presents the findings on municipal service delivery challenges, and this chapter discusses the findings on municipal M&E and EWS. This chapter also suggests how an EWS should be integrated into an M&E framework, and proposes a sample EWS framework that can be incorporated into the current municipal M&E framework.

6.1 Introduction

The purpose of this study is to investigate the municipal M&E system and to examine the extent to which the current M&E system of the City of Johannesburg contains the characteristics and components of an EWS. This chapter introduces the municipal M&E system and discusses the EWS components the current municipal M&E system has. It also answers the conceptual question posted in the Chapter 2: Are M&E and EWS conceptually related? Based on two definitions of an EWS, it distinguishes two kinds of EWS: Gross and specific EWS. The existence of early warning signals—weak signals, as argued by the Weak Signals Theory—is proved by providing three examples of water outage problem, billing problem, and skills shortage problem. The

main section of this chapter is about the discussion on the integration of an EWS into an M&E system, which is the follow-up discussion started in the Chapter 2 (Section 2.3 Four Stages from M&E to EWS). It also proposes the sample EWS framework to be incorporated into the current M&E framework in order to enable the M&E system to serve as an EWS.

6.2 Municipal M&E system

The CoJ and all municipal entities have established quite sophisticated M&E frameworks and systems (CoJ, 2009; 2012). One respondent who was involved, as a senior official, in the development of a sophisticated CoJ's performance management system stated that

> Performance monitoring, ten years ago, they had, because we developed a quite elaborated system. Every manager has a personal score-card on their contract, they have to deliver X, Y, Z things and therefore there are systems to collect those information. And every year their performance targets are set. In 2002, it was a quite well-developed system (Interview: SOG1, 18 February 2015).

However, another respondent, who is also a senior manager, saw things differently. But what she is saying is about conducting or carrying out M&E, rather than about having an M&E system and framework.

> We don't really do Monitoring and Evaluation. It should be that we do monitoring and evaluation. But we don't have the proper system in place for that. There should be overall, overarching monitoring and evaluation services across the City that includes all the utilities. There should be but it isn't such as a department (Interview: SOCoJ6, 9 April 2014).

She further stated about self-monitoring and evaluating as follow

> Now, the Catch 22 is that each department or each MOU is doing their own monitoring and evaluation. How do you monitor and evaluate yourself? So, it's for me is a big question mark (Interview: SOCoJ6, 9 April 2014).

The issue of self M&E was also stated by two councillors (Interviews: C2, 26 August 2014; C4, 19 February 2015), a deputy director from CoJ (Interview: DCoGTA, 21 August 2014), and a community organiser and M&E practitioner (Interview: M&EP, 22 April 2014).

Lack of information was stated by many respondents, councillors, municipal staff and CoGTA director (Interview: C3, 23 January 2014; C4, 19 February 2015, C2, 26 August 2014; SOCoJ6, 9 April 2014; AG, 2011a). One councillor stated that there is

no information and she requested the City, repeatedly, for financial and demographic information related to her ward, but the City never responded. In her view, she said, it is not because the City does not want to share this information and statistics with her, as she as a councillor is entitled to get such information, she said it is because the City does not have those data and information, as they are not collecting the right information, and what is worse is that, she said they also do not have a reliable system—a Central Registry—to document and store information that they collect (Interview: C3, 23 January 2015).

A director from CoGTA talked about weekly reports submitted by community development workers (CDW). Those reports contain early warning signals about community unhappiness, and raise the alarm and request permission to resolve the problems before the situation becomes exacerbated and protests ensue. There are many instances that CDWs requested the City and Cogta to take some actions such as coming and meeting with communities, in order to defuse tensions. But generally the City ignores those requests. He said:

> We have community development workers, they generate weekly reports. They are early. But the system is manually designed and has no accuracy and could not able to predict. .. We are not using those information effectively. Most of the time, those reports are ignored. We can use those CDW weekly reports and information they provide, intelligently (Interview: DCogta, 21 August 2014).

In its Back to Basic study, CoGTA (2015: 27) also acknowledges that the situation with the CDW Programme is not a positive one, the relationships between the CDWs and some Ward Councillors are, in most instance, unhealthy because of personal issues among them, and as a result the communication and coordination, and feedback mechanism between CDWs and ward councillors are poor, and lack transparency and trust among them. Moreover, it also notes that the role of the CDW programme is not clear.

One respondent from the CoGTA who oversees CDW workers, and receives and analyses, as well as coordinates with the City Council, stated that if sufficient responses were taken, most of the situations could be resolved, and most violent protests could be avoided (Interview: DCogta, 21 August 2014).

A director from CoGTA also complained about how Gauteng uses a manual system to collect information. As it is manual, it is costly and difficult to capture into the systems,

and tends to cause mistakes and inaccuracy (Interview: DCogta, 21 August 2014). Another respondent, a councillor, also pointed to a similar thing. She said that when City Power staff come to her ward to read meters, they come with a piece of paper. It is the same when Johannesburg Water staff came to read water meters. They don't even have a proper template. She asked about the template in one Council Meeting and did not get any answers. Furthermore, she mentioned about the loss of six years data while transferring data from the old computer system to the new one (Interview: C3, 23 January 2015).

In terms of M&E process, one respondent, who was a councillor, shared his experience of compiling and conducting M&E and preparing M&E report. He said

> It is more political. There are a lot of weight put on some special departments that bringing on more revenue. At the end of the year (Financial year) we sit down and to get budget reports done, to do planning for the next year. Councillors are supposed to get comments and feedback from communities and report back. But the process becomes bureaucratised. Instead, administrators do them, but even they outsource to external persons, consultants. I think that is the problem. I think the better system would be using two systems, where people involved. Everybody should be involved and be continuous, and should be corrective (Interview: C2, 26 August 2014).

A question about the integrity of data and figures in official reports and business plans is raised repeatedly by the Auditor General annual reports to the Gauteng Provincial Legislature and the CoJ on City Power's Report on the Financial Statements (AG, 2010b, 2010c, 2011b, 2011c, 2012b, 2012c, 2013b, 2013c, 2014b, 2014c).

Another weakness observed by reviewing and studying official documents of the municipality and municipal entities is the quality of reports and documents. It is discovered that there is no uniform reporting template. Annual reports and business plans use different structures and format both among entities and among reports of the same entities. This makes it difficult to find important figures and numbers. A uniform format (or template) is necessary to monitor and check critical figures and numbers. The issue of lack of uniform template was mentioned by a councillor. She said she even created one and gave to the City Management and the Mayoral Committee. But her initiative and valuable assistance were neither accepted warmly, nor used. The reason for that is, in her view, probably the animosity between her party (the DA) and the ruling party (the ANC).

Because of a lack of uniform reporting template for all departments and MOEs, figures for profits and losses are described in different sections. Sometimes, figures for customer satisfaction levels, employee satisfaction levels, meter-reading levels are lacking in some reports. For example, in the annual report of Johannesburg Water for the 2012/13 financial year, there are no figures for customer satisfaction levels, or meter reading levels, although it was stated that meter reading contractors are managed by Johannesburg Water (JW, 2013a). But in its 2011/12 Annual Report (JW, 2012a: 20), the customer satisfaction level was stated.

One of the glaring shortcomings related to reports and documents is that some annual reports do not have page numbers, for example In the 2012/13 Annual Report of Pikitup (2013a), not all pages have page numbers—only the first 21 pages have page numbers. Moreover, the page numbers of the table of contents do not correspondent to the actual page numbers of the titles of sections and subsections. These things seem trivial and unimportant but they are really serious red flags about sloppiness or lack of professionalism, or lack of control and monitoring.

All interviews, focus-group discussions and document studies pointed out that an M&E system exists and there are also M&E activities taking place. But it is clear that the public and the communities do not have a role in M&E processes (Interview: C2, 26 August 2014; C3, 23 January 205; C4, 19 February 2015; M&EP, 22 April 2014). One important finding is conspicuously lacking, information about the EWSs activities and practices. No evidence is found that the municipal M&E system serves as an EWS as required by legislation—Municipal Systems Act (2000), Municipal Planning and PM Regulations (2001), Municipal Systems Amendment Bill (2003), White Paper on Local Government (1998).

6.2.1 EWS components in M&E system

There are some mechanisms in the form of reporting that function like an EWS. For example, all departments in the national and provincial governments have to prepare and submit an EWS report. It is an expenditure control mechanism. Every quarter government department submit a report to the National Treasury, with monthly reports up to the end of that quarter. The relevant budget allocations (or budget) of departments are requisitioned from the National Treasury on a monthly basis in advance as the National Treasury is, required by the Banks Act, No. 94 of 1990, to keep those moneys at the South African Reserve Bank (SARB) and earns interest at

the normal applicable rates applied within the SARB. The reports of the 3rd Quarter table adjustment estimations indicate the additional funds provided for each department (Mabala, 2006). An example of a standard early warning report is shown in Figure 6.1. The report shows the budgeted amount or expected expenditure for the department for the 2004/05 financial year that is expected to be spent within the said financial year, i.e. R3.87 billion.

Although it is called “Early Warning System Report”, what it provides are no more than financial amounts of budgets and actual expenditures, and thus the report enables the National Treasury and respective government departments to monitor, on a monthly basis, actual expenditure levels of departments, and whether or not the particular departments can spend their allocated funds, and also to see the deviations between those budgets and the actual expenditures.

Another objective of the EWS report is to control and monitor the amount of money the National Treasury draws and avails to government departments monthly. This is because drawing more than what government departments can spend reduces the amounts of interest the National Treasury earns from the Reserve Bank where those funds are deposited. On the other hand, when the amount of funds the National Treasury draws and avails to government departments is less than the amount government departments can spent, the National Treasury has to draw more funds from the Reserve Bank and other commercial banks, that costs the National Treasury as it has to pay penalties (Mabala, 2006).

The City of Johannesburg also implemented a deviation framework that complied with SCM legislation to curb the unjustifiable use of deviations. The appropriate use of the deviation framework should serve as an early warning signal (AG, 2012: 63).

In interviews, councillors, municipal officials and senior managers as well as directors and officials from Cogta stated that many early warning indicators exist and they know them. A director from Cogta gave an example from monthly and some emergency reports (messages) submitted by Community Development Workers. Those CDW reports include many warning signals and information about community unhappiness and frustration on the unresponsiveness of the municipality, which could cause protests. In those reports many requests were made to come and meet with

community members (Interviews: DCogta, 21 August 201; C3, 23 January 2015; C4, 19 Feb 2015; Gauteng CDWP, 2014).

The warning signals include cash flow levels, vacancy rates, overrun costs, missed deadlines, the skills shortage and insufficient skilled workers, engineers, technicians, aging and deteriorating infrastructure such as water pipes, pumps, at pumping stations, insufficient tools and mechanics and vehicles, scarcity of land fill for waste removals.

An important fact is that these early warning signals do not come from M&E reports or channels, but rather from working experiences and personal knowledge about how the system works. And those signals and knowledge are fragmented across different sectors and reports. There is no consolidated risk knowledge data-base. A director at CoGTA stated about the lack of a system to collect and store (documents) data and information, that information and indicators, including early warning signs, are in various reports, for example CDW monthly reports (CDW, 2014). But the problem is that those data and information are recorded either manually, or in a non-uniform format, so that those data and information are difficult to use (Interviews: DCogta, 21 August 201; Gauteng CDWP, 2014).

Respondents all stated that they feel powerless about the impending or future problems those signals and indicators are warning of, as there are not sufficient capacities and resources to take corrective and preventative action to prevent these impending problems and challenges. One municipal official mentioned the lack of budget to address emerging problems that they knew of through early warning indicators. She said the budget is only to be used to address and solve problems, but not to address emerging ones that have not developed into full-blown problems (FGD, 24 November 2014; Interviews: DCogta, 21 August 201; C3, 23 January 2015; C4, 19 Feb 2015; Gauteng CDWP, 2014).

Furthermore, there is no formal mechanism or process to utilise the early warning information effectively and no budget is allocated for that purpose. In all interviews with councillors, municipal officials and senior managers, no indication was made that these early warning signs are systematically monitored, combined, collected, communicated and discussed, with an aim to utilise them to prevent forthcoming problems and challenges (FGD: 24 November 2014).

Figure 6.1 Early warning system report

ACTUAL AND PROJECTED EXPENDITURE: 2004/2005 FINANCIAL YEAR																			
Vote 34: Department of Water Affairs and Forestry																			
	April	May	June	July	August	Sep	Oct	Nov	Dec	Jan	Feb	March	Total expenditure end of Oct 2004	Projected expenditure from Nov to 31 March 2005	Total expected expenditure	Original budget	Adjustment budget	Adjusted	Variance between available funds
Programmes													expenditure	expenditure	Expected	Budget	Budget	Budget	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000	R'000
Administration	14,873	20,205	16,211	27,503	26,925	29,421	47,817	23,060	26,978	27,579	29,651	31,118	182,955	138,386	321,341	252,762	29,279	282,041	(39,300)
Water resource (P&R)	13,012	16,895	26,574	19,412	19,053	18,718	21,515	38,015	41,705	49,631	50,959	106,295	135,179	286,605	421,784	340,954	80,830	421,784	0
Water resource (Operation	43,713	48,061	170,868	105,541	78,132	48,585	116,548	(7,246)	104,388	109,855	109,520	241,307	611,358	557,824	1,169,182	1,024,801	144,381	1,169,182	0
Water service (P&R)	6,524	2,854	2,968	3,253	1,478	3,052	1,429	5,436	5,361	7,851	11,388	8,817	21,558	38,853	60,411	60,411	0	60,411	0
Water services (Operations)	12,706	69,947	242,136	99,869	87,696	28,109	182,317	119,559	110,008	114,345	134,650	245,343	722,780	723,905	1,446,685	1,273,361	173,324	1,446,685	0
Forestry (P&R)	638	844	1,227	1,021	1,021	1,989	1,286	2,522	2,273	2,424	2,143	2,612	8,233	11,974	20,207	20,207	0	20,207	0
Forestry (Operation)	23,066	26,345	65,204	28,120	28,104	34,740	37,116	35,821	29,868	32,392	31,575	32,451	260,695	162,107	422,802	329,648	93,154	422,802	0
Theft and losses	0	42	6	328	18	114	50						558	0	558	0	0		(558)
Unallocated trading account	596	521	612	263	384	51	107						2,534	0	2,534	0	0		(2,534)
TOTAL EXPENDITURE	115,128	185,714	525,806	285,220	261,018	164,779	408,185	217,167	320,581	344,077	369,886	667,943	1,945,850	1,919,654	3,865,504	3,302,144	520,968	3,823,112	(42,392)
Land and subsoil assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Theft and losses	0	42	6	328	18	114	50						558	0	558		0	0	(558)
Unallocated trading account	596	512	612	263	384	51	107						2,534	0	2,534			0	(2,534)
TOTAL EXPENDITURE	115,128	185,714	525,806	285,220	261,018	164,779	408,185	217,167	320,581	344,077	369,886	667,943	1,945,850	1,919,654	3,865,504	3,302,144	520,968	3,823,112	(42,392)

Source: DWAF (2006: 102).

M&E identifies the state of progress or delay and information provided by M&E reports do contain early warning signals or indicators of any problems that may occur (Görgens & Kusek, 2009). The M&E system provides early warning signals but not an early warning 'system'. The key two words here are 'signals' and 'system'. But providing or having early warning signals or indicators is only one of four components in an early warning system (ISDR, 2003; Basher, 2006). Noticing and understanding early warning signals is only a small part of an EWS. One of the four essential components of an EWS is having a risk database. Without a systematic risk database, monitoring and interpreting those signals cannot be conducted effectively.

6.2.2 Definition of an EWS: Narrow and broad

This study found that the reason for the lack of components of an EWS in the municipal M&E system is the different interpretation of an early warning system (EWS). It is noted that two kinds of definitions of an EWS are used in different fields. M&E and Performance Management use a narrowed definition of an EWS and Disaster Management, Strategic Management and Risk Management use a wide and broader definition of an EWS (UNISDR, 2005, Woodhill, 2005; Basher, 2006).

One of the major differences between the narrow definition and the broad definition of EWS is the area the EWS system covers. The narrowly defined EWS covers the area before problems appear, i.e., monitoring and identifying them, while the broadly defined EWS covers the area both before problems appear—a part of both strategic and risk management—and after they happen—a part of crisis management (Gilad, 2004). Moreover, it not only develops a risk and problem knowledge database and a short, prioritised risk list to focus on that particular period, but also develops and prepares for response capability to effectively address incoming problems.

The M&E framework of the CoJ (2012: 6) states that "while also serving as an early warning system, notifying leaders and managers of potential risks that may threaten achievement of the IDP" (p. 6). It can be understood that an early warning system refereed by the CoJ in its M&E framework (2012) has a narrow definition that is different from that of early warning systems used in disaster management, which have a wider definition and thus more components involved in the system.

Moreover, the monitoring process undertaken by a proper early warning system is different from the monitoring process taken by an M&E system. In the monitoring process, an early warning system uses a more focused method of anticipating and then closely monitoring processes or projects by using established (or prepared) risk knowledge data-base. On the other hand, an M&E system does not use this kind of data-base.

Furthermore, warning signals provided by a conventional M&E system could not be regarded as early signals as the nature of the timing and frequency of the current M&E system in its reporting to the responsible stakeholder is not in a position to provide those warning signals to the responsible persons or sector in a timely manner in order that the responsible persons or sector could take the necessary preventive or corrective steps and actions before the impending problems perhaps mature into a fully-fledged crisis. Even if a M&E system can provide warning signals early enough to take the necessary corrective or preventative actions, it could not be regarded as an EWS as providing early warning signals is just one of the four essential elements of a proper early warning system (EWS).

The M&E systems currently used by municipalities do provide early warning signals or indicators. It is, however, necessary to integrate all four essential elements of an EWS into the M&E system, and reporting and communication have to be frequent, so that the responsible persons or sectors are informed or alerted about impending problems and challenges.

The main differences between the narrow definition of an EWS and that of the broad definition of an EWS are their purposes and aims, their scope (or territories) and their functions (or activities and responsibilities). In the narrow definition of an EWS, the purpose and aim is to monitor and communicate the warnings as early as possible to responsible persons or departments (or sectors). An early warning system (EWS) with a narrow definition does not necessarily use a risk knowledge database. Although it does warn and inform responsible persons or the management about the warning information, it is not its task to prepare an early warning report that discusses the impact of the possible problems, or suggest solutions and required resources. Moreover, it does not have to play any role in the preparation and planning for corrective or pre-emptive actions.

On the other hand, according to the broad definition of an EWS, the system comprises all four inter-related elements of an early warning system, i.e., risk knowledge, monitoring and warning system service, dissemination and communication, and response capability (de León, Bogardi, Dannenmann & Basher, 2006; Basher, 2006; UN, 2006). The purpose and aim of the team is not only to provide warning information about possible or emerging problems, but it also is actively involved in all activities and processes of preventing and mitigating approaching problems (UNISDR, 2006).

The team prepares a risk knowledge database, prepares a list of early warning signals (of selected problems and risks for a particular period), monitors these signals, warns about the possible or emerging problems, disseminates and communicates to all parties involved not only the warning information, but also the possible impacts of approaching problems, solutions, required resources and steps for corrective or preventive actions. Moreover, the team is also involved in developing response capability, together with related groups and persons. The length and depth of the reports of an EWS team are therefore different: reports of an “narrow” EWS team are concise while those of a “broad” EWS team are comprehensive.

6.2.3 Two kinds of EWS: Gross and specific EWS

Because of two different definitions of an EWS, there are also two kinds of EWS which have emerged. They could be understood as a Gross EWS and a Specific EWS. A conventional M&E system can serve as a gross EWS, as M&E reports and briefings can describe the number and intensity of deviations from plans and in turn predict, rightly, that the objectives or goals of programmes, projects or work would not be achieved. A classic example of such predictions and warnings are the reports on the MDG (Millennium Development Goals). For example see, MDG No. 4, Reduce child mortality: the target set for South Africa of 20 deaths per thousand live births or lower by 2015 compares adversely with the current level of 104. But MDG No.2, Achieve universal primary education was achieved 98% by 2009 up from 96% in 2002. Again MDG No. 5, Improve maternal health target (of 38 maternal deaths per 100,000 live births) would not met, as it was at 140 in 2013. MDG No. 6, Combat HIV/AIDS (Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome), malaria and other diseases, as well as MDG No. 7, Ensure environmental sustainability, would not met (RSA, 2013; UNDP-SA, 2012).

One example is a possibility of achieving a target set by City Power in terms of reducing electricity losses. City Power targeted to reduce electricity losses to 10 per cent by December 2015 (CP, 2014a: 15 & 28; CP, 2014b: 17) and to 2 per cent by December 2016 (Molatlhwa, 2015). The electricity losses were 30.7% in 2013/14 financial year (CP, 2014a: 28; CP, 2014b: 17). By looking at data stated quarterly, at mid-year or in the annual reports, It is easy to expect that those targets are difficult to achieve as the electricity lost was 30.7 per cent in 2013/14 FY (CP, 2014a: 19).

Another example is a target set by Pikitup to achieve 70 per cent participation in the 'Separation at source' programme by the end of 2015-16 FY (Pikitup, 2013a, the report does not have page numbers. It is approximately at page no. 61, Table 3-5: SDBIP (Service Delivery and Budget Implementation Plan) Performance Indicators - 2012/13). Data provided in reports reveal that that target could not be achieved, as there was a 17 per cent participation rate at the end of 2012-13 financial year. This is an average participation rate when all participating depots are considered. There is 27% participation rate in the Waterval depot area and less in other areas. The Orange Farm depot only started implementation of Separation at Source in the third quarter and thus the initial rate is low, but is expected to increase as the community becomes more aware of the programme (Pikitup, 2013a. The report does not have page numbers. It is approximately at page no. 41, under the Section 1: Key Achievements of Chapter Three: Service Delivery Performance). It should be noted that 58 per cent participation was achieve in 2011/12 FY (Pikitup, 2014a).

However, knowing for a fact that a project or programme or goal would not be achieved is not helpful unless there is enough time left to take the necessary corrective actions or steps, there is also analysis and discussion about factors or causes for non-achievement of the programmes, projects and goals and recommendations are made to correct them or address them.

6.2.4 Existence of early warning signs in municipal problems

The study revealed that municipal service delivery problems such as the billing issue, skills shortage and water outage have factors and causes that precede them. This section discusses three municipal problems, explores the factors and causes behind them, and the chain of process. The aim in discussion of those factors and causes is to prove that problems do not happen out of blue, and there are warning indicators (weak signals) or events (wild cards) preceding them before the problem becomes

apparent, an argument made by the Weak Signal Theory (Ansoff, 1975, 1979). Moreover, the purpose of exploring these factors and causes that create municipal problems is to better understand the factors and causes, so that a correct diagnosis of the problem could be arrived at and necessary corrective actions can be taken. The data, information and knowledge form part of a risk data-base, and have to be assimilated in developing a response capability, one of four essential components of an EWS. A long list of early warning signals and indicators of particular factors or stages is presented in Appendix 10).

Example 1: Water outage: Factors and causes

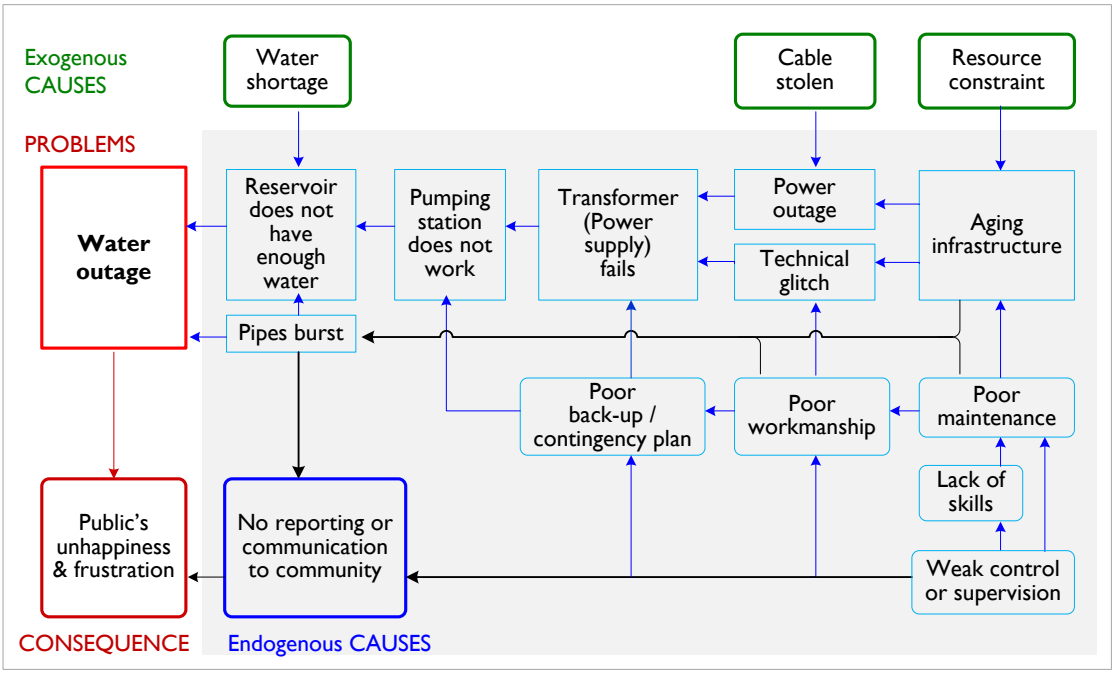
In the case of water outages, there are at least two immediate causes that create water-outage: first, reservoir does not have enough water to deliver; and second, pipes burst so that water—although delivered from the reservoir—does not reach the residents or households, or customers. These two immediate causes of water-outage have again several factors and causes. For example, the reason for not having enough water in the reservoir might be that the pumping station does not work either because the power supply to the transformer failed, or because of power outage, caused by Eskom, or because of technical glitch at the transformer or pumping station, or through cable theft. These causes and factors can be understood as an outcome of aging infrastructure. Causes of aging infrastructure are important to understand as that is one of the critical common problems all municipalities are facing. The issue of aging infrastructure is different from the issue of infrastructure backlog or lack of infrastructure. More factors and causes involved in the water-outage scenario are described in Figure 6.2: Factors and causes leading to water outage.

It is necessary to stress here that water-outage, especially unplanned or uninformed outages, causes inconvenience and difficulties to the public, communities and customers such as businesses, companies and even government departments, which include hospitals and schools where water is essential for their functionalities. However, what causes communities and customer's anger and frustration is poor communication and lack of engagement from the municipalities and the water utility, i.e., Johannesburg Water (Interview: CM4, 20 September 2014; C3, 23 January 2015; M&EP, 22 April 2014).

Most of the time, when Johannesburg Water is aware of some problems—for example, the low level of water in a reservoir or the breakdown of a transformer or

pumps, or a pipe burst, precedent factors and causes described in Figure 5.3—that will result in water-outage, no communication or announcement is made to inform affected communities. Even when the utility is not able to inform and warn the communities and customers about water-outage on time, they should have informed the public and communicated the reasons of the water-outage and the expected duration.

Figure 6.2 Water Outage: Factors and causes



Data reveals that the communication, information-sharing and engagement of the municipality and the water utility, Johannesburg Water, is poor and, in the view of communities and consumers, unacceptable. Respondents stated that there is no clear communication channel or contact number and people do not know which one they have to contact or make enquiries of, the City (the municipality), or the water utility (JW). Many times, there were complaints that the City and JW—were telling communities and consumers, simultaneously, that the problem was not their fault, but the fault of the other party. Furthermore, customer service is most of the time, unhelpful, as it often does not know or have relevant information about the causes of water outages, or how long it will take to effect repairs (Interview: CM4, 20 September 2014; C3, 23 January 2015).

The indicators to monitor the water outage problem include water level in reservoir; number of communication or announcement to customer, number of water outage;

number of pipe burst in a month; duration of water outage (hours); number of incidents of transformer or pumps break down (in a month), frequency of conducting maintenance of infrastructure; quality and quantity of required equipment and tools; number of vacancies (Table 6.1).

Table 6.1 Sample of indicators to monitor water outage

	Indicators	Target	Actual
1	Water level in reservoir		
2	Number of communication or announcement to customer		
3	Number of water outage incidents		
4	Number of pipe burst in a month		
5	Duration of water outage (hours)		
6	Number of incidents of transformer or pumps break down (in a month)		
7	Frequency of conducting maintenance of infrastructure		
8	Quality and quantity of required equipment and tools		
9	Number of vacancies		

There are three salient points in the example of water outage and factors and causes behind it. First, there are precedent factors and causes leading to water outage. Second, what public, communities and customers find unpalatable and unacceptable is not about water outage *per se*, but more about the lack of communication, information-sharing and engagement either from the municipality or the water utility (Johannesburg Water.) Third, those precedent factors and causes leading to water outage, and information about them, would not be found in M&E reports. Thus, in order to have an early warning system, in the cause of water-outage, daily monitoring of those precedent factors and causes and communication when there is something wrong with them, is necessary, and an EWS and process for those daily monitoring and communication has to be in place. (Table 6.2)

Table 6.2 Three points in the example of water outage

1	There are precedent factors and causes leading to water outage. Those factors and causes serve as early warning signals or indicators of impending water outage.
2	It is not about water outage per se, but more about the lack of communication, information-sharing and lack of engagement that make communities, households and customers unhappy, frustrated and angry.

3	Those precedent factors and causes leading to water outage (early warning signals) could neither be discovered by M&E activities, nor be found in M&E reports. Daily monitoring of those precedent factors and causes and communication when something is wrong with them, is necessary to have an effective and helpful EWS.

Example 2: Billing problem: Factors and causes

Billing problem is one of the well-known challenges the municipality has been experiencing. The municipality has been struggling to fix it since about five years ago (about 2009). Until now (in the middle of 2015) it still has not been completely solved. There are some cases still reported where residents still receive inaccurate or incorrect bills for their municipal services, for example, complaints at Hello Peter website, where complaints are posted by municipal service customers and rate payers. Even in the November of 2015, complaints related to billing issue are still posted by Johannesburg residents.

There are a range of causes involved in the chain process of the billing problem. The immediate cause is a lack of accurate, correct and current information that is a result of either a system failure, or data-collection failure, i.e., lack of actual meter reading—which was acknowledged and noted by City Power in its 2014-2019 Business Plan (CP, 2014b: 80-81), as well as weak data-capturing and documentation. The reasons for system failure might involve a lack of resources in terms of capacities such as skilled technicians, equipment and machines such as computers and software; or poor maintenance of them if necessary machines and equipment are in place; or just poor workmanship if all necessary resources are provided. According to the Auditor General report (AG, 2011a), noted the failure of financial officials and managers both of CoJ and its entities to align the source data and billing data when recording revenue and debtors.

System failure is related to poor performance of service providers, as the city does outsource that technical service. One respondents of this study stated that

> A major component of this problem, was the purchase (at great expense) of a new computer system and data base. The migration of the data from the 'old' system to the 'new' system, where many consumer account files were lost. Also, I was also told that the Tender was awarded on a 'cadre' basis to a company that had no experience in this area. And who 'outsourced it to another company also without the relevant experience. The whole matter was a travesty, and has cost the CoJ Billions (Interview: C3, 23 January 2015).

The reason behind the poor performance of service provider can be understood from the perspective that the service provider is unqualified for that task, but was awarded the contract (or tender) because of a flawed tender process. In turn, it can be thought that the tender process is flawed either because of, first, lack of skills that cannot correctly conduct the tender process or cannot evaluate correctly competing candidates for the tender; or second, poor decision making in terms of awarding the contract; or third, corruption, even if the necessary skills are there to conduct the tender process properly and can also make the right decision.

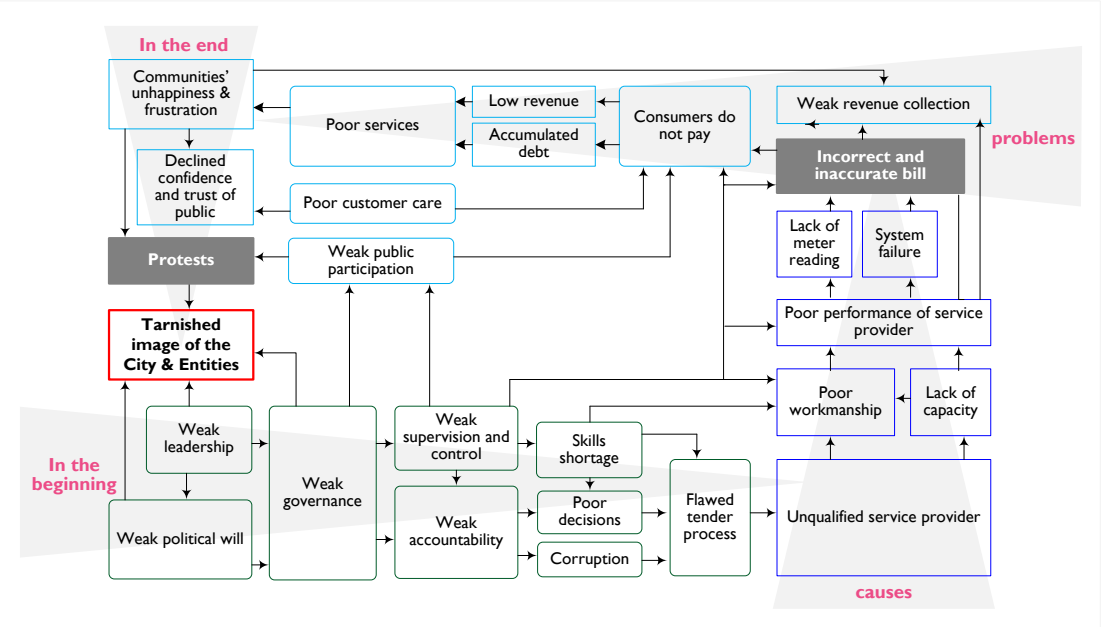
These factors and causes can be regarded as a result of weak internal control and supervision. Auditor General's report the Gauteng Provincial Legislature on the CoJ for the year ended 30 June 2011 stated that "Monitoring controls to ensure adherence to the internal politics, and procedures for the correct recording of revenue and consumer debtors were not sufficient" (AG, 2011a: 13). Moreover, in the same report, AG noted that "[i]n certain instances, the accounting officers of the municipality and its entities did not exercise oversight responsibility regarding financial and performance reporting and compliance with MFMA and SCM regulations" (AG, 2011a: 13).

The next step is to explore why skills are inadequate, decisions are poor, and corruption exists. The skills become a shortage when supervision and internal controls are weak so that there is no awareness or identification about the situation of skills shortage. Poor decision making is related either to the skills shortage or weak management that does not hold people accountable when they make poor decisions, or that does not prevent corruption. Weak supervision and internal controls can in turn be attributed to weak governance, which is also responsible for a weak accountability system. Weak governance can be understood as a result of weak leadership who does not have enough political will to make the system work so (See Figure 6.3). The indicators to monitor the billing problem include number of meters read in a month; rate of billing (CoJ); numbers of bills with mistakes; number of customer complaints lodged in a day (or a week); number of customer complaints resolved in a day (or a week); numbers of system failure in a month; rate of revenue collection; amount of revenue collected; amount of debt owed by consumers (Table 6.3).

Table 6.3 Sample of indicators to monitor the billing problem

	Indicators	Target	Actual
1	number of meters read in a month		
2	rate of billing (CoJ)		
3	Numbers of bills with mistakes		
4	number of customer complaints lodged in a day (or a week)		
5	Number of customer complaints resolved in a day (or a week)		
6	numbers of system failure in a month		
7	Rate of revenue collection		
8	Amount of revenue collected		
9	Amount of debt owed by consumers		

Figure 6.3 Billing problem: Factors and causes



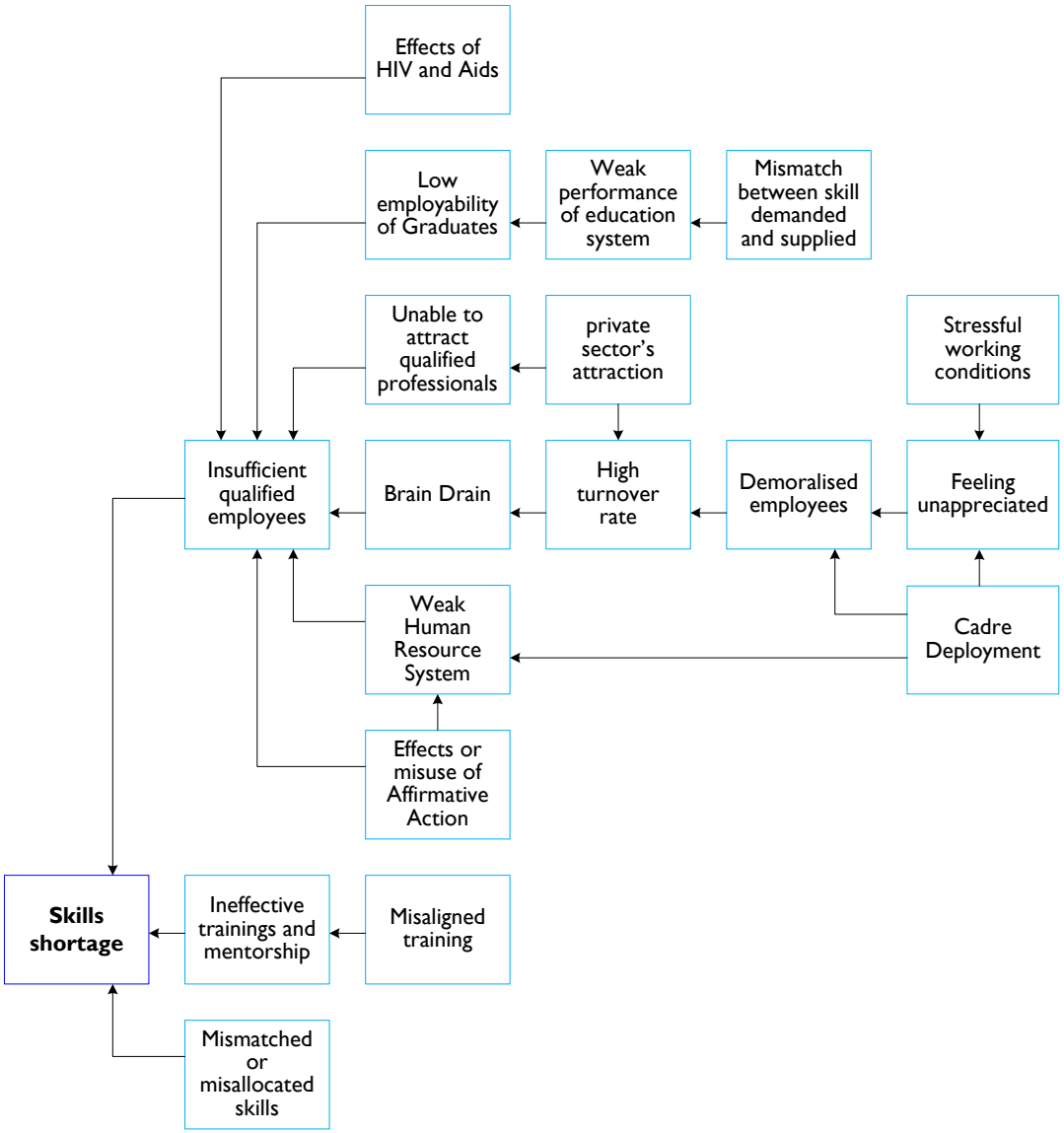
Example 3: Skills shortage: Factors and causes

In the case of a skills shortage problem, there are three immediate causes that create the skills shortage: first, insufficient qualified and skilled personnel or workers; second, ineffective training: third, mismatched or misallocated skills. The eight dimensions of skills shortage is discussed in length in Chapter 5: Factor Categorisation. This section explores the factors and causes of skills shortages.

For the first immediate cause (not having enough qualified and skilled employees), at least six factors are identified as responsible for this. They are effects of HIV/AIDS (which reduces numbers of skilled workers); low employability of graduates (which might be a result of a weak education system, or mismatch between skills demand

and skills supplied by education system); inability to attract qualified personnel (because of attraction from other sectors, such as private sector, or other regions or cities); brain-drain (owing to high turn-over rate, or employees are demoralised; weak human resource system (which selects and appoints wrong people, while there are qualified people to be selected and appointed); or effects or misuse of labour legislation such as Affirmative Action (qualified and skilled people cannot be employed because they are not eligible according to law, while people eligible by law are not skilful, or suitable for positions).

Figure 6.4 Skills shortage: Factors and causes



The second immediate cause (ineffective training or mentorships) might be an outcome of misaligned training. The third immediate cause (mismatched or misallocated skills) is a management and planning problem (Figure 6.4).

Table 6.4 Sample of indicators to monitor the level of skills shortage

	Indicators	Target	Actual
1	number of consultants hired		
2	number of employee over 50		
3	number of employee trained		
4	number of professionally registered engineers and technologists		
5	number of temporary staff employed		
6	number of training provided to employees		
7	number of trainings completed		
8	number of trainings not completed		
9	number of trainings provided to employees		
10	number of vacancies		

6.2.5 Early warning signals revealed by the study

The weak signals theory has been tested and applied in different fields and organisational settings. However, it has neither tried in the performance management, M&E fields, nor the local government and municipal contexts. One of the main arguments claimed by the weak signals theory is the existence of weak signals (or early warning signals) of problems, changes or deviations. The research reveals 373 early warning signals, categorised into six main categories and 25 sub-categories (Table 6.6). The details of those early warning signs and their categorisations are described in Appendix O.

Although this study and data revealed here are not exhausted to be readily applied in the municipal EWS risk database, they do provide a starting point in designing and developing a risk database, which can be supplemented and updated gradually and incrementally by the municipal EWS team. Similarly, the root cause analysis (RCA) carried out by this study on three municipal service delivery problems (i.e., water outage, billing problem and skills shortage in Section 6.2.4) is intended to serve as a sample one that could be used as a starting point. The RCA is a study that has to be conducted by municipal officials and staff on each municipal problem.

The data-categorisation proposed by this study (in Section 5.7), which is different from the categorisation used by CoGTA, the National Treasury, Auditor General, DPME and other individual studies, is based on the order of M&E steps and process, i.e., planning, inputs, processes and outputs (in Section 5.7), and thus helps the monitoring team to develop indicators to be monitored in each M&E stages.

This study shows that phenomena corresponding to Ansoff's theory of weak signals, i.e., early warnings, can apparently be detected in municipal service delivery processes (see Section 6.2.4). And the time available highlighted by Ansoff also appears to exist. At the same time, this study also establishes that barriers to detecting and capturing weak signals (i.e., early warnings) discussed by Ansoff are essential knowledge that deserve special considerations and preparation in planning and implementing an EWS in municipal phenomenon (See Section 2.5.1). Moreover, the decision support model proposed by Nikander (2002) based on Ansoff's theory appears to be applicable to EWS for the municipal service delivery process too (see Section 2.4.2).

6.3 Integration of an EWS into an M&E framework

Early warning systems must be an integral part of all levels of the Municipal M&E system, strategic and risk management, as well as in policies such as M&E policy, planning (IDP) and budgets. An EWS is to be consolidated into existing information and processes conducted by the current M&E system and processes (CoJ, 2012). It thus does not start the monitoring and data collection process from scratch. Data-collection is primarily done by the M&E (See responsible persons for monitoring and reporting in Performance Management Framework of the CoJ, in Section 3.4.1 of this thesis), but more frequently, will be based on a list of problems and factors or causes that is prepared from a wider and more comprehensive risk-data base.

6.3.1 EWS process

There are four steps in an EWS process: monitoring, analysing information, warning and communicating (or reporting), and building response capability. The first three tasks are the responsibilities of an EWS team. And development of response capability is the responsibility of all units, sectors and departments of the municipality and municipal entities (CoJ, 2012 & 2009).

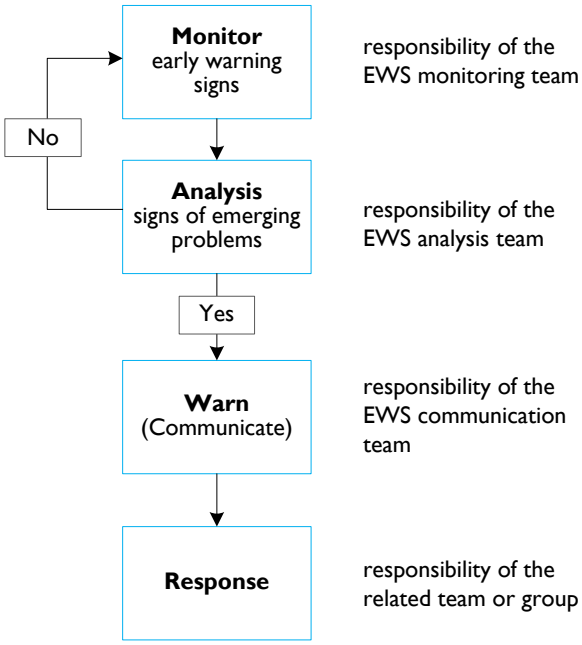
There are three primary tasks of the EWS team: first, to ensure the required data and information is attained; second, to analyse these based on a pre-determined list of

problems and factors or causes, i.e., just to see the deviations from plans, and to note significant changes or delays in the processes; and third, to prepare and distribute reports to all stakeholders and people involved in the processes.

The EWS team does not collect data, instead it gathers, compiles data—through documents and reports—fed (or submitted) by the M&E data-collection team and all sectorial teams and departments of the municipalities (See CoJ's PMS and M&E Framework). The EWS team is responsible for categorising, documenting and storing them systematically so that they can be easily accessible when necessary, and communicates and distributes them to all responsible persons.

The life-blood of an EWS is information collected through monitoring and from institutional experiences and memories (Nikander, 2002; UNISDR, 2005; Basher, 2006). Another crucial aspect of an EWS is time. Receiving information and communication has to always be on a timely basis, as their usefulness and value depend on their immediacy in order to undertake the necessary preparation, planning and actions (UNISDR, 2004).

Figure 6.5 EWS processes



Based on de León, Bogardi, Dannenmann & Basher, 2006: 23.

6.3.2 Developing risk data-base

The first essential element of an EWS is a risk data-base (Basher, 2006; UNISDR, 2005). In order to build a risk data-base, all municipal problems, challenges and factors causing those problems have to be collected and documented. The first step to building a risk data-base is just sampling and documenting all problems and challenges, as well as crises experienced during the past several years: the more the list is comprehensive covering as many years as possible, the more useful and valuable the data-base will be (de León, Bogardi, Dannenmann & Basher, 2006). They can be grouped or categorised into Key Performance Areas (KPAs), commonly used in M&E.

Experiences such as good practices, and lessons of monitoring, detecting and interpreting warning signals, and solutions for various problems should be documented and transformed into training materials to support training workshops for technical development projects to enhance preparedness and to develop the response capability of the Municipality and municipal entities. As discussed in Chapter 3, the City's current performance management system has already established a systematic performance coaching system and arrangement (CoJ, 2009), from which necessary information and data for the establishment and maintenance of risk data-base can be obtained.

Developing a risk data-base is an on-going process: continuous revision and addition are needed. Moreover, besides comprehensiveness of the data-base, the efficiency and ease of search and retrieval of information is also an important characteristic of a good risk data-base (UNISDR, 2005). In the data-base, it is necessary to record the nature of problems, difficulties and challenges, together with their causes, and solutions and if possible, also the persons or teams who handled or solved these problems, and the resources and know-how necessary to solve them. Based on various official documents, reports and studies, together with data collected through interviews, focus-group studies and observation, this study compiled the lists of municipal problems, the factors and causes, as well as early warning signals (Table 6.5).

Problems list (a short and prioritised list) has to be prepared, based on the targets and objectives for that particular period, for example a one-month, or three-month period. Not all risks documented in the risk database will be relevant all time. The highest

possible risks have to be calculated, discussed and prioritised for the short term, for example six months, or three months. A number of layers could also be set for different priorities, 1st priority, 2nd priority, and 3rd priority, depending on the possibility of things happening in that particular period. Moreover, prioritised risk will be varied for different periods of time as well as for different municipalities depending on their particular contexts and time. The prioritised risks or challenges (or concerns) are stated, for every year, in the Auditor General Report, IDP (CoJ), and Annual Reports of the City (CoJ) and Municipal Entities (City Power, Johannesburg Water and Pickup).

Table 6.5 Factors, causes and problems revealed by this study

Factors, causes and problems	Categories	Sub-categories	Sources				
			Interview	Literature Review	City Power Documents	Joburg Water Documents	Pikitup Documents
Exogenous			17	12	7	8	8
Supply-side	Planning	Leadership	11	6	0	0	0
		Governance	13	10	4	1	1
		IDP	6	14	10	1	1
		Public Participation	29	3	2	0	0
	Inputs	Human Resources (or human capital)	22	18	6	5	6
		Finances	4	2	1	2	1
		Infrastructure	3	3	5	5	4
		Equipment	0	7	5	3	7
		Information	5	11	4	0	2
		Systems	1	7	3	0	1
	Processes	Administration and management	23	6	13	3	14
		Supervision	1	4	0	0	3
		Monitoring	7	3	6	0	7
		Supply Chain Management (Procurement)	5	3	2	0	2
		Coordination and communication	6	21	4	1	3
		Operation	0	0	0	0	0

		other	0	0	0	0	0
	Outputs	CoJ and MoEs	8	0	0	0	0
		Customer service, CoJ	0	1	10	1	4
		Electricity	0	1	17	0	0
		Water & sanitation	5	1	0	5	0
		Refuse removal	1	1	0	0	8
		Revenue service, CoJ	1	1	5	0	0
Demand-side			6	6	4	2	12
Total			174	141	108	37	84

See Appendix J, L, M, N for the comprehensive list of factors, causes and problems.

Table 6.6 Early warning signs revealed by this study

Factors	Categories	Sub-categories	No
Exogenous			3
Supply-side	Planning	Leadership	7
		Governance	29
		IDP	17
		Public Participation	13
	Inputs	Human Resources (or human capital)	48
		Finances	40
		Infrastructure	16
		Equipment	18
		Information	15
		Systems	3
	Processes	Administration and management	13
		Supervision	1
		Monitoring	7
		Supply Chain Management (Procurement)	12
		Coordination and communication	18
		Operation	3
		other	22
	Outputs	CoJ and MoEs	2
		Customer service, CoJ	40
		Electricity	16
		Water & sanitation	24
		Refuse removal	3
		Revenue service, CoJ	2
Demand-side			1
Total			373

See Appendix O for the comprehensive list of early warning signals

6.3.3 Data-collection and reporting

The EWS team does not need to collect data itself, rather it asks for the required data and information from the M&E team. The current Performance Management System of the City of Johannesburg outlines, in detail, the responsible persons and reporting schedules as well as persons to oversee the PMS (See section of CoJ PMS and M&E in Chapter 3) (CoJ, 2009, 2012). The responsibilities of the EWS team is to document and organise them for EWS purpose, such as monitoring trends and reporting and communicating their findings.

Two full-time employees are necessary for the data collection task, and who will be the sole responsible persons for data-collection and documentation. Their primary task is to collect information and data, record or document the collected information and data, check and verify the correctness, accuracy, and completeness from different sources (that feed information to the PM and M&E teams), and prepare, write, distribute weekly situation reports. They would be occasionally required to brief and explain the reports and analysis, whenever necessary to responsible managers, supervisors or technicians. The daily task of the data-collectors is to contact, talk, communicate—by phone or through email—different managers and supervisors (as well as foremen) daily, based on the templates of data-collection, with an aim to have all necessary information and data for the weekly reports on different sectors and departments. The creation (establishment) of data-collection templates or formats is to be based on main risk-database and prioritised and selected list of problems and challenges prepared monthly or quarterly.

A number of important indicators are recommended to be included in every report, such as all quarterly, bi-annual, and annual reports and business plans. It should also be in the weekly and monthly reports. Indicators will be various in different types of reports, but all reports have a page with selected important indicators. A sample of a summary page is provided below (Table 6.7). Risk levels are divided into five levels: very high, high, moderate, low and no risk. It can be expressed by number—4 for very high, 3 for high, 2 for moderate, 1 for low, and 0 for no-risk. Or it can also be expressed by colour—Red for very high, Orange for high, Yellow for moderate, Light Green for low, and White for no-risk (Table 6.3).

All sectoral teams or departments of municipalities and municipal entities would be required to submit and provide their performance data and information whenever requested from the EWS team—a privilege or power delegated to the EWS team that has to be endowed by the EWS and M&E policies and regulations of the municipality (and local government).

6.3.4 Resources required for an EWS

The EWS team needs at least two full time staff and two part-time staff—seconded from the M&E team. It should be noted that this EWS team is responsible only for the delivery of four basic services: Electricity, Water, Sanitation and Refuse Removal. This is just a proposed number and could be varied based on the size of a municipality and resources available. It is, however, imperative to understand that two sufficiently trained and skilled, motivated and hard-working (diligent) staff is far better and effective, or productive than a team of 10 people who are unmotivated, poorly trained and thus do not have the necessary skills. It is therefore advisable to start with just two staff carefully selected, appropriately trained and adequately resourced.

Skills that EWS staff or technicians are required to have are sound technical, analytical skills to be able to interpret and analyse data and information; communication and writing skills to communicate succinctly, and efficiently and timely distribution of early warning messages to decision-makers and responsible sectors, teams, or persons to take corrective and preventative action.

Table 6.7 Risk levels, code number and colours

Risk level	Code Number	Colour	Colour in words
Very high	4		Red
High	3		Orange
Moderate	2		Yellow
Low	1		Green
No-risk	0		White

Table 6.8 An example of one-page summary of KPI

	Indicators	Base-line	Target	Actual	Risk levels
	Service delivery coverage for each services (%)				
Financial Situation					
	Profits (Losses) (Rand)				
	Surplus (deficits) (Rand)				
	Cash flow position (Rand)				
	Debt to Revenue ratio (%)				
	Debt provision (Rand)				
Operational Performance					
	Meter reading level (%)				
	Revenue collection ratio (%)				
	RCR completion times and rate				
	No. of targets set (for a quarter, or a year)				
	No. of targets achieved, in a month				
Operational Effectiveness					
	no of water pipes burst per 100km				
	no of sewer blockages per 100km				
	Total losses / Unaccounted for water (%)				
	Technical losses (power) (%)				
	Non-technical losses (power) (%)				
	No. of Power outages (HV and MV)				
	Amount of illegal dumping (million tons)				
	sewer blockages cleared with 24 hours of notification				
	no of water pipes burst per 100km				
	no of sewer blockages per 100km				
Customer service					
	Customer satisfaction level (%)				
	Calls answered in 30 seconds / total calls received (%)				
	Customer complaints/queries resolved / total queries received, within 7 days (%)				
	Average time taken to resolve queries that referred				
	Query resolved within 7 days (%)				
Faults restoration					
	Within 1.5 hours (%)				
	Within 3.5 hours (%)				
	Within 7.5 hours (%)				
	Within 24 hours (%)				
	Water bursts restored within 48 hours (%)				
Capacity and Resources					
	Vacancy rate				
	No. of Vehicle breakdowns, in a week				
	Fleet availability (%), Pikitup				
	No. of strikes, in a month				

There is no set formula for determining the budget for an EWS. Moreover, during initial planning, it can be difficult to determine this until a pilot project has been carried out. A general rule of thumb should be that the EWS budget should not be so small as to compromise the accuracy of information and credibility of predictions and warnings. Since most of the data and information are collected by an M&E teams, which budget is by an industrial standard, allocated between 3 and 10 per cent of a project/programme's budget (IFRC, 2011; Frankel & Gage, 2007). Approximately 25 per cent of an M&E budget should be allocated for an EWS (or between 0.75 and 4 per cent of each project or programme's budget). The budget for EWS are to cover all expenses and costs for capacity building/training, office equipment and supplies, travel and lodging, computer hardware and software, an information management system, transportation and vehicle maintenance, and printing and publishing of documents. This is however just a proposed percentage and needs to be deliberated and decided by practitioners, managements and leaderships to be appropriate for their particular contexts and resources available.

6.3.5 Four operational components of an EWS

There are four operational components of early warning systems (Basher, 2006).

(1) Observation, detection, monitoring, analysis, forecasting and development of warning messages or reports;

(2) Assessing potential risks and integrating risk information into warning messages or reports;

(3) Dissemination of timely, reliable and understandable warning messages to responsible units or sectors;

(4) Development of response capability, through the performance coaching provided by the City Manager to the sector leads and sector members who are directly accountable to him, by the Board Chairpersons to MDs/ CEOs of municipal entities, and by line managers to their subordinates (See responsible persons for performance coaching in CoJ, 2012). The tasks of the EWS team includes planning, preparedness and training programmes focused on formulating and mastering effective responses to problems.

6.3.6 Sources of data and information

Sources of data and information are the M&E team, departments or sectors. They might be quarterly, mid-year and annual reports, business plans, CDW reports, meeting records and minutes, media, Auditor-General reports, PMG meeting, briefing,

question and answer records and minutes, statistical reports (See CoJ's Performance Management Framework, 2012).

6.3.7 EWS framework (proposed by this study)

In order to serve as an EWS, the current M&E framework has to integrate an EWS framework. In this section, an EWS framework will be proposed. The framework is designed in order to help municipalities to detect, take corrective actions against, prevent and contain the upcoming municipal service.

This framework is a sample and it is recommended that municipalities establish their own framework based on this sample. The framework is recommended to be inserted between Sub-section 7.1 Requirements for implementation, at page number 71, and Sub-section 7.2 Concluding comments at page number 72 and that concluding comments sub-section will become sub-section 7.3 as the proposed model of the EWS framework would be Sub-section 7.2 (CoJ, 2012).

1. Purpose

The purpose of this framework is to provide an Institutional Framework for the developing, preparing and implementing of an Early Warning System in the CoJ Group.

2. Objectives

a) To ensure that the CoJ has an Early Warning System.
b) To ensure that possible future problems would be spotted by monitoring continuously and systematically.
c) To ensure that the necessary resources, staff and skills are allocated and planned for in order that the EWS be effective and efficient and operated.
d) To contribute to the reduction of factors, difficulties and challenges that hamper the effectiveness of service delivery processes.

3. The scope of application

The Scope of the EWS framework is for the entire CoJ Group consisting of:

- City of Johannesburg Core Administration; and
- City of Johannesburg Municipal Entities.

The Core Business Units shall implement the Framework and Municipal Entities are expected to follow a similar approach. MEs should customise or align their systems with the Framework without downgrading the set Guidelines and Standards.

4. Definitions

An EWS is defined as a detection and communication process that alerts key players and stakeholders of developing problematic trends that can be obviated by taking corrective and preventative interventions.

5. Aim of an EWS

The aim of an EWS is to provide warning information about emerging problems to leadership, management, decision-makers, all responsible persons, so that they take preventive actions.

6. Responsibilities of key actors

An EWS policy (and framework) is required to define the roles and responsibilities of various authorities and stakeholders, explicitly. The major roles and responsibilities of different stakeholders for the contingency plan can be as follows:

Table 6.9 Responsibilities of key actors

Key Actors	Task	Responsibility
EWS Observer	Monitoring and observation	• Gather and store information from sectoral teams and groups monitoring, • When necessary, contact and collect data and information from sectoral teams or groups when they do not provide enough information or data • observe early warning signals from relevant data and information, by using prepared check list (or risk knowledge data-base) • provide early warning signals to data analysts
EWS Management	Conduct management, supervision, internal	• Provide leadership

Team	control, and oversight of the whole system	• Establish objectives and visions for the team • Establish an accountability and performance management system • Establish communication channel and report structure • Provide management and supervision for the EWS team • Ensure necessary resources are available to the team. • Conduct M&E
Data analysts	Analyse and interpret early warning signals and forecast emerging problems and their impacts, study past experiences, and conduct record keeping documentation, preparing report	• Analyse early warning signals and indicators provided by EWS observers, based on the knowledge of past records and experiences, using root cause analysis and steps of weak signal theory • Prepare early warning reports • Send EW reports to communicators
Communicators	Communication and dissemination	• Communicate, contact to responsible teams or group as per agreed communication channel • Make sure that messages (reports) are delivered to and received by responsible team or person
Sectoral team or groups	Response, search and study solutions, documenting and reporting response activities and experiences back to the EWS team	• Regularly collect and provide necessary data and information to EWS observers • Prepare and build response capability • Take necessary corrective or preventative actions or steps when early warning signs occur
Entire EWS team	Development of risk knowledge data-base, compilations of lessons, experiences and best practices	• Prepare risk data-base • Conduct documentation and record keeping • Compile and study best practices and lessons • Disseminate best practices • Provide training on EWS

7. Objectives of an EWS

An EWS has six main objectives.

(1) To assist Managers, Supervisors and Employees to identify the emerging problems and challenges.
(2) To provide a structured framework for developing and implementing an EWS
(3) Assist the M&E Functions to develop a consolidated risk data-base, early warning signals of common problems and challenges, and solutions to those problems and challenges; to monitor, interpret, understand and communicate the early warning signals and the possible problems and challenges to responsible persons and decision-makers; and to develop necessary response capabilities to solve those problems and challenges.
(4) To help employees to be aware of common problems and challenges and their early warning signals and solutions to them.
(5) To increase employees' awareness and understanding about the common problems and challenges faced during the municipal service delivery processes.
(6) To create a culture of pro-activeness and learning in the organisation
(7) To reduce the number of problems facing the municipality and municipal entities.

6.4 Benefits of having an EWS for the municipality

Implementing an EWS creates more work and responsibility for municipal leadership, management and staff. Since the EWS systematically records lists of tasks, responsible persons for these tasks, and their performance levels in implementing them, the accountability and performance management system will be strengthened. This is not good news for anybody who tends to shy away from work or responsibilities and they will try to block such a system from functioning because when they fail to undertake their tasks, their failures and negligence will be recorded and they will be more easily held accountable. In fact, those are the people who must be closely monitored and supervised with the help of an EWS. Ansoff (1984) discussed in the abstract about them as officials (decision-makers) who may feel that hightened recognition of the problems (performance deficiencies) revealed by early warning signals (weak signal) may endanger their position or negatively reflect on their reputation.

On the other hand, there are certainly many people in municipalities who really love their jobs, genuinely want to perform their tasks and responsibility well and want to deliver quality service to communities as much as they can because they really care for their people and are passionate to serve their communities and society. For them, an EWS enables them to perform well, to serve well and to deliver well. Moreover, an effective EWS enables municipal leadership and managers to monitor their service delivery processes systematically, to handle service delivery problems and challenges in a proactive way, and to manage their staff better and hold their officials and staff more accountable.

It is a proven fact that effective early warning systems have substantially reduced problem-solving costs and the number of problems experienced (Rogers & Tsirkunov, 2011; Teisberg & Weiher, 2009; UNISDR, 2006). Since an EWS provides information on possible problems and emerging crises (such as service delivery protests, skills shortage or financial problems), the municipality can address and mitigate emerging problems while they are in their beginning stages and therefore more easily tackled and handled. Almost all recurring problems could be prevented (or at least reduced) in number because through the EWS these problems and their causes are learnt and understood and response capabilities are prepared to prevent them. Consequently, a properly set up and applied EWS leads to increased efficiency, higher productivity and performance.

It should be noted that increased efficiency and higher performance helps municipalities to get funds for their development and infrastructure projects from international donors such as the Danish International Development Agency (DANIDA), and the German donor agency Kreditanstalt für Wiederaufbau (KfW), as donors tend to provide aid to municipalities that have a reputation for being well-organised and able to deliver on their obligations. International donors are willing and happy to provide aid and funds when they know a city can fulfil its commitments (Cameron, 2012). Most importantly, having an M&E system that serves as an EWS, the municipality becomes compliant with the legislative requirement of having an M&E system that serves as an EWS.

6.5 Conclusion

This chapter has two main parts. The first part discussed the findings related to municipal M&E system and practices, and to what extent the M&E system has the components of EWS. The second part discussed how to integrate an EWS system into the existing M&E framework, and then presented a sample of an EWS framework. The benefits of having an EWS for the municipality was also stated in the end. Development and sustainability of an EWS requires political commitment and dedicated investments. Implementation of an EWS requires a clear concept of operations and standard operating procedures, enabling effective coordination among agencies across the components of the early warning systems. The concept of an EWS is very new to the municipal management domain and there is no previous utilisation of an EWS in municipal service delivery processes. Thus, the proposed model of an EWS for municipalities is at the beginning stage of its evolution into municipal management territory.

Chapter 7
DISCUSSION AND THEORETICAL IMPLICATION

This chapter presents the discussion on findings stated in the preceding chapters. There are three main sections in this chapter: First, it discusses the nature and characteristics of municipal service delivery problem and challenges and provides a new explanation about their causes and factors behind them. Second, it explains how the method and approach of Weak Signals Theory can be integrated into M&E and EWS fields, as well as in the local government context. Third, it introduces the extended territory of M&E by incorporating the components and characteristics of an EWS.

7.1 Introduction

First, it discusses the nature of municipal service delivery problems and challenges, argues that the municipal problems are more related to participatory and communicative matters, and suggests that the mild state of alienation is responsible for these psychological or mental natures of municipalities and their staff and employees—that factor is not covered by the four roots of service delivery problems. Second, it explains how Weak Signals Theory can be integrated into EWS framework. It also suggests that the two theories used in this study—four roots of service delivery problem theory and four essential elements of an EWS—are complimentary to the Weak Signals Theory. Finally, it introduces the new type of M&E—a proactive M&E (pM&E), or M&E that serves as an EWS (eM&E). Furthermore, it argues that the M&E concept and framework need to be re-designed to encompass and build-in the concept of EWS.

7.2 Municipal Problems: More about public participation and customer services

Data pointed out that most of the municipal problems are not about quantity and quality of municipal services (although there are some serious shortcomings in efficiency and productivity that still can be improved), but more about public participation in the municipal service delivery processes and customer services. The responsibilities of local government and municipalities are not only to provide services, but also involve communities in all major steps of municipal functionalities

and operation. What communities expect from municipalities is not only about the quality and quantity of services but how those services are provided and how municipalities conduct their affairs and functions. Most of the complaints from communities are not about the level of services municipalities provide, which are impressive especially in capacitated metropolitan municipalities.

One respondent said:

> What we want is to have a say. It is not about how many houses we want, but we want to have a voice on how houses are distributed. We want some controls over the allocation of budgets. We want a role in monitoring and evaluation… If government pulls down itself to the level of people, things will be better (Interview: C2, 26 August 2014).

The main problems communities have with municipalities are about how municipalities relate to them, for example, how municipalities communicate and engage with communities, how responsive municipalities are toward communities' questions, how democratic and transparent municipalities conduct their affairs. One respondent, a councillor, stated that

> What people often want is honesty, they want to hear something like we would have these problems, we are falling behind, that is what will happen in the future (Interview: M&EP, 22 April 2014).

The weak public participation processes and practices of municipalities result in bad feelings and perceptions in the public and communities that they have no say in the municipal functions and processes, especially in planning. The communities and public find personalities of municipality and municipal entities as uncaring, non-participatory, uncooperative and undemocratic.

Communities feel that they are alienated from their roles and right to be able to participate and be involved in planning such as IDP processes and monitoring functions. Data both from interviews and document studies pointed out that what makes the public and communities unhappy, angry and frustrated is more about the failure or weaknesses of municipalities to involve them in municipal affairs and business, such as planning, budgeting, implementation and monitoring—as stated above, people feel, rightly, that municipalities are unresponsive, inaccessible and non-cooperative, and the communication, reporting and cooperation from municipalities are not good enough—and that customer relations and services are poor and inefficient.

Municipal problems and the factors and causes behind them have been well studied, discussed and understood. This study revealed two major municipal problems: first, the perception and expectation gap related to municipal service delivery performance, and second, inadequate public participation related to municipal service delivery processes. The findings indicated that the communities' complaints and dissatisfactions are not because of poor service delivery performance. This study discovered that except in informal areas, service delivery performance of the CoJ and its municipal entities are acceptable and people are generally happy with the service levels they received from the municipality. It is necessary to point out that municipal entities do not receive service fees in informal areas. Besides a fact that informal areas are growing steadily, basically, services are delivered there for free. There is moreover infrastructure backlog issue which makes delivery of service by municipal entities difficult.

That finding was supported by a survey conducted with over 25,000 people to gauge satisfaction levels with governance, by the Gauteng City-Region Observatory (GCRO)—a collaborated afford among partnership between the University of Johannesburg, the University of the Witwatersrand, the Gauteng government, and the SA Local Government Association, in which at least 60 respondents per ward were sampled in each metropolitan municipality and 30 per ward in local municipalities—revealed that in general communities satisfaction with municipal services is high (Table 7.1).

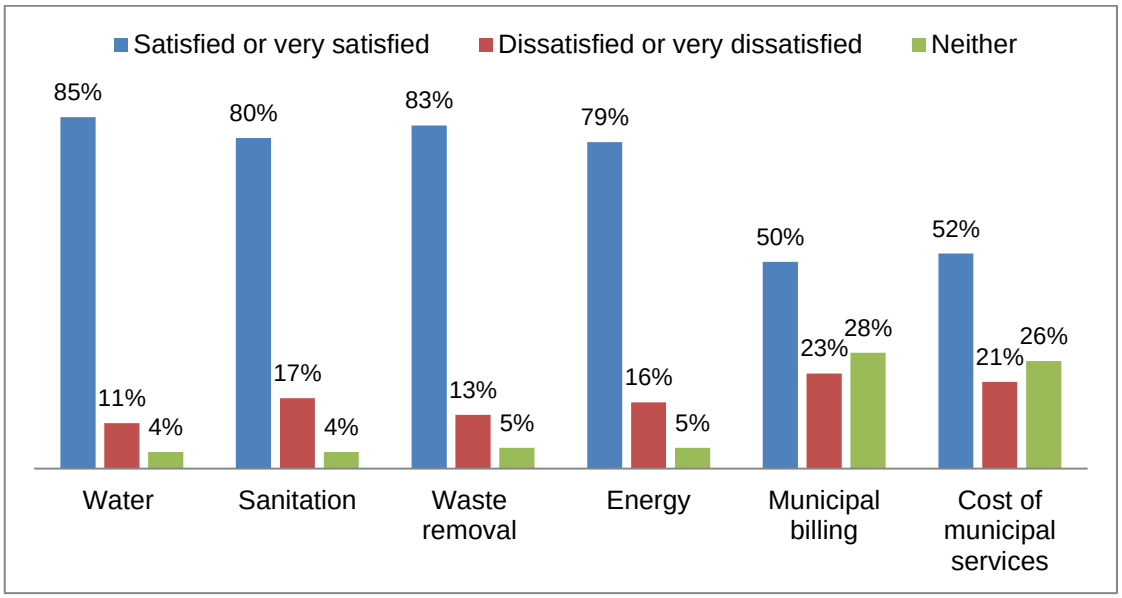
Table 7.1: Respondents' Satisfaction with Municipal Services

Respondents' satisfaction with	Satisfied or very satisfied	Dissatisfied or very dissatisfied	Neither
Water (%)	85 (S 77 + VS 8)	11 (D 7 + VD 4)	4
Sanitation (%)	80 (S 72 + VS 8)	17 (D 11 + VD 6)	4
Waste removal (%)	83 (S 76 + VS 7)	13 (D 9 + VD 4)	5
Energy (%)	79 (S 73 + VS 6)	16 (D 11 + VD 5)	5
Municipal billing (%)	50 (S 46 + VS 4)	23 (D 17 + VD 6)	28
Cost of municipal services (%)	52 (S 48 + VS 4)	21 (D 16 + VD 5)	26

Source: GCRO (2014: 14 -19).

Note: S= Satisfied; VS = Very Satisfied; D = Dissatisfied; VD = Very Dissatisfied

Figure 7.1: Respondents' satisfaction with municipal services



Source: GCRO, 2014:14 -19.

7.2.1 Three root causes of municipal problems

Out of many factors revealed by data, this study identified three factors as root causes of those factors. They are (1) weak internal control, (2) lack of, or poor, enforcement, and (3) poor public participation.

Weak internal control: There are many employees who are self-motivated and dutiful, there are also many employees who need constant control and supervision from management or supervisors to get their work done properly, effectively and efficiently. Poor productivity, ineffectiveness, poor workmanship and poor attitude from many workers to their responsibility to do the best job they can, and finally poor work morale are regarded by the researcher as outcomes of weak internal control, which is also a cause of weak accountability systems.

Poor enforcement system: These two factors are complimentary to each other. The lack of one will make the other incomplete. It is possible that an accountability system can be weak or non-functional although there is strong internal control unless a proper enforcement system exists. It is like having an effective police force that arrests law-breakers, but without a proper judicial system that sentences the criminals or wrong doers. The researcher has a personal experience about the effects of weak judicial system on the prevention of crimes. While attending court as a witness, I had a couple of informal interviews with two police officers, who arrested two robbers who mugged

me in August 2014 and we—the police officers and I— were required to attend court and testify there. The police officers told me that they arrested people, rightfully, according to their responsibilities and duties, but many of those arrested people were released within a few months, through various corrupt means, or internal connections they secured usually by bribery.

The theory of four roots of service delivery problems, by Devarajan and Reinikka (2004), makes the same point but it uses “weak incentive”, meaning that service providers and politicians, i.e., the municipality and the council, do not have the proper incentive to deliver services. It is a different way of stating that there is no one to check and hold them accountable. In the other words, there is neither internal control (checking them), nor enforcement system (holding them accountable) so that they do not feel that they have to deliver. It is another supporting statement for an argument, the researcher made above, about employees and staff who require the theory X management.

Weak internal control and poor enforcement are also root causes of skills shortage. It is because selection and appointment processes conducted by the HR department need to be constantly controlled and thoroughly monitored so that it takes all the required steps according to legislation in terms of the selection and appointment of employees and staff. The internal control and monitoring, as well as holding accountable, of an HR department can prevent the hiring or appointing of unqualified staff or employees. Moreover, good internal control can also provide the management with essential information on available and scarce skills, so that necessary steps can be taken to fill vacancies, provide training and mentorship, or improve skills development programmes proactively. In the same vein, good internal control can also provide the infrastructure and equipment that is available and needed. Lack of systematic, regular and enforced internal control and supervision is observed and even admitted by government departments and entities CP, 2014e) as one of the biggest factors that creates lack of productivity and inefficiency as well as poor workmanship.

Poor leadership and weak governance are not included in these three root causes. This is because effective accountability systems can turn both a poor leadership into a good one, and a week government into a strong one. The root cause of poor leadership and weak governance is a weak accountability system, which is a result of

poor internal control that does not hold people accountable. Both good leadership and strong governance do happen without constant monitoring under the watchful eyes of big brother. However, it is unhelpful, or even harmful, to regard, or believe, that both all leadership and all governance are naturally and essentially good and strong governance do happen without constant monitoring under watchful eyes of the big brother. That point was also made by a respondent who is a councillor. She related it to the public sector transformation of UK under the Blair Administration, by acknowledging the untenability of the assumption that public servants serve for the interest of the public (Interview: C3, 23 January 2015).

It is therefore the view of the researcher that the true problem is a weak accountability system rather than poor leadership or weak governance—these two are in fact regarded as an outcome of the former. (See for detailed and comprehensive discussion of Constitutionalism, which holds that leaderships and governments need to be checked and controlled by the Constitution, as power corrupts people (Wormuth, 1949).

The weak accountability system is viewed and discussed widely by many (AG, 2011; NT, 2011, 2010; Cogta, 2009; DPME, 2011; Salga, 2011b, 2010) as one of the root causes of municipal service delivery problems. While the weak accountability system is indeed a cause of municipal problems, it is not a root cause. Instead it itself is also an outcome of other causes. It is a view of the researcher that the weak accountability system is an outcome of two root causes. They are weak internal controls and poor enforcement systems. These two factors are in fact essential parts of an accountability system.

Poor Public Participation: Another root cause identified by this study is poor public participation or community involvement and engagement in municipal processes. The local government system is established as a joint-business or a joint-responsibility of municipalities and their community members (or constituencies). All problems, strengths, weaknesses, and limitations are required to be shared, communicated, discussed, addressed, and solved. All decision-making, planning, objectives and goal prioritising, and budgeting are meant to be made together too.

There are many programmes and projects that could not be successfully or effectively implemented without adequate community cooperation and participation, for example

Separate @ Source campaign of Pikitup, and the Demand-Management Programme (DMP) of City Power and Johannesburg Water. Similarly, there are many strategies to address or prevent problems, especially related to the demand-side, such as non-payment problems; cable, water and electricity thefts; illegal connections of water or electricity; illegal dumping. Those strategies could not be effective without community cooperation and support. Because of poor public participation, municipalities and all municipal entities and utilities have been losing many kinds of opportunities and resources that can be attainted from communities.

There are a number of instances where community members can help and assist the municipality and municipal entities. One example of public cooperation, to make meter-reading corrected, was described by one interviewee, community member. He said, “I wait until 6, every month. If they don’t come and read the meter, I read and phone them. I have the phone number. I also check the meter by myself” (Interview: CM3, 17 June 2014).

Another example is the technical assistance of a community member, an electrical engineer, who offered City Power that he could restore power in Parkmore after a long power cut in May 2015. The problem was that parts of Parkmore Extension 1 lost electricity as they were scheduled for load shedding. Residents assumed that the power would come back at 6:30 but did not. Residents informed City Power and a technician team was sent out but they failed to fix the problem, as they could not find out what the problem was (first they thought it was caused by cable theft). Then, Mr Moore stepped in and helped supervise the technicians as they reinstalled all the fuses to the main switch, then tested each section and the power was back on (Zwane, 2015).

One respondent, a resident, also shared her experience relating to the assistance community members can give by being vigilant, observing their surroundings and providing critical information. She said

> In this street, this last January (2014) we saw people going down from the pavement into the bottom and turned out that somebody had come five o’clock in the morning, wearing blue overalls, they took out the man-hole cover and they went down. Somebody, the guard, said “Hello, what are you doing?” They said “we are sub-contractor to the municipality to fix something, five in the morning.” Somebody else came and tried to photograph the vehicle. But it turned out two hundred meters of electric cable has been stolen. Two hundred meters of cable

and it took the City Power nearly two days to fix (Interview: CM4, 20 September 2014).

7.2.2 Relationship of three root causes, data and theory

This study explored factors related to and responsible for municipal service delivery performance. Factors or causes revealed by data are categorised into three main groups: Exogenous, supply-side, and demand-side (Chapter 5). Supply-side factors are further divided into four groups: Planning, inputs, processes and outputs. In this section, the relationships between these three root causes and the theory of four roots of service delivery problems are presented. Moreover, where three root causes are situated in data-categories is also presented (Table 7.1).

Table 7:1 Relationship of three root causes, data and theory

Root causes and factors	Weak internal control	Lack of, or poor, enforcement	Poor public participation
Data categorisation	Processes Governance Leadership	Processes Governance Leadership	Planning Inputs Processes
Theory: Four Roots of Service Delivery Problem	Resource misallocation Expenditure leakage Weak incentive	Weak incentive	Resource misallocation Demand-side failure

Weak internal control: Weak internal control belongs to the groups of processes of, governance and leadership (in the data category). It is also related to monitoring. Internal control is an essential mechanism for achieving the upmost effectiveness and productivity of a work force. If the level and quality of internal control is weak then either governance is weak or leadership is poor.

The first three causes of the theory of the four roots of service delivery problems are (1) resource misallocation, (2) expenditure leakage, and (3) weak incentive. These three causes happen when internal control is weak due to either weak governance or poor leadership, or both. When resources are misallocated, they become less-useful or underutilised. Examples of resource misallocation include the appointment of unqualified persons and awarding contracts to service providers who are not capable

to deliver services. These events happen when internal control, through supervision and monitoring, is lacking or ineffective.

Expenditure is leaked when financial management is lacking or weak, which is also a kind of weak control or lack of internal control. Expenditure leakage happens in various forms. One example is the procurement of or purchasing materials, equipment, tools, vehicles or computers at high prices either because of corruption (collaboration) or lack of understanding of market (related to skills shortage, and appointments of unqualified persons). One respondent, a senior manager at the Provincial Government, shared this, one department bought 400 computers at prices that were three time higher than actual prices (Interview: SOG2, 12 March 2014). Another respondent, a former senior manager at the finance department of the CoJ, said, “You don’t care if computer system falls down, what you actually care about is buying the system that you can get a cut” (Interview: SOG1 18 February 2015). These things can only happen when there is no internal control.

Lack of or weak internal control creates weak incentives for service providers, municipal employees, staff, management, even politicians and councillors to perform their responsible tasks and duties because it does not matter whether or not they work, perform or deliver. The theory of four roots of service delivery problems argues that when service providers are poorly monitored, they do not deliver properly.

Lack of, or poor, enforcement: Enforcement is a necessary and critical component of an accountability system. It is related to internal control. But it can also exist when there is proper internal control. Without enforcement, people do not have the incentive to comply with or abided by the rules and regulations. When rules and regulations are not applied, or even enforced, but punishments are not severe enough, people tend to disregard or ignore the rules and regulations. Expected Utility Maximisation theory maintains that people comply with the rules and regulations only at the level of their expected utility in the case of non-compliance weighed against the probability of detection. When there is no chance, or a low probability of detection, or the punishment is not severe enough, he or she will not be bothered to comply with the rules and regulations. Then, there will be no benefits or advantage, just a greater burden that these rules and regulations will have on society or an organisation (Becker, 1968). That point was in fact already made almost three centuries ago, by John Locke (1694) in his masterpiece *Second Treaties of Government*.

When the performance of service providers as well as municipal staff, management and politicians is not properly monitored and there are no consequences for non-performers or people who don't deliver, there will be no incentive to carry out their responsibilities and task. Thus, it can be argued that weak incentive is an outcome of lack of accountability and internal control.

Poor public participation: The four roots of service delivery problem do not explain the causes of poor public participation. There is an implication in the theory that the politicians (the municipality) and the service providers do not have any incentive to include communities or the public in their processes such as planning, budgeting, projects and goals prioritisation, implementation and monitoring and evaluation. Another explanation alluded to by the theory is that demand-side failure is responsible for poor public participation. Demand-side failure refers to a lack of understanding or interest in communities in the processes of governments, and public services. It is stated that there are many instances within international experience that communities or the public, especially poor people, do not know what services they are entitled to and who in government and the service providers they can hold accountable. The theory also relates resource misallocation to poor public participation.

7.2.3 Four roots of service delivery problems in the context of the CoJ

The theory of four roots of service delivery problems is used in this study as one theoretical framework (Sub-section 2.4.1, in Chapter 2). The four roots according to the theory are resource misallocation, expenditure leakage, weak incentive, and demand-side failure (Figure 7.1). Exploring factors affecting municipal service delivery problems was guided by the four roots causes of the theory. This study found that the four root causes of the theory are relevant in the context of the City of Johannesburg.

Figure 7:1 Four roots of service delivery problems



Resource constraint is not a real problem as without resources no one can deliver. When municipalities do not have resources for certain mandates, it is not their problem as they do not have resources. One participant in a focus-group discussion

affirmed that “we no longer have issue of unfunded mandate. Mandates are now budgeted” (FGD, 24 November 2014).

However, the problem is more about the lack of consultation and engagement with communities as well as other levels of governance about resource constraints. However, respondents stated that resource constraint is not a problem for the city of Johannesburg. One respondent, a former senior financial manager at the CoJ firmly stated that

> I think it is a cheap answer to say there are no resources. They would often say that, municipalities. But they are getting far more resources in real terms, far more money is going to them than 10 years ago. We are just going up and up and up every year, in real terms not talking about inflation. Meanwhile, performance seems to be getting worse (Interview: SOG1, 18 February 2015).

That statement is in line with an argument of the World Bank (2011: 14-15) that states that “fiscal resources have not been the binding constraint to improved service coverage and quality”. It continues that in terms of the financial resources municipalities have South Africa is in an enviable position because of the fiscal space and resources created and targeted to the poor. According to the World Bank (2011), the real challenge is to ensure that public transfers result in better outcomes.

The resource constraint experienced by municipalities does not stem from the limitation or constraint of input resources, but rather from the inefficiency and weaknesses of the billing, low and insufficient revenue collection systems (Heyns, 2011; Nkwinika, 2010)—City Power *2014-2019 Business Plan* also stated that “77,000 customers found not to be billed on electricity” and “there are 172,000 properties that are not on the billing system” (CP, 2014B: 82)—and non-economy which are in turn results of skills shortages, lack of proper supervision, control and monitoring and weak or insufficient public participation in the municipal planning, decision-making and implementation (National Treasure, 2011).

In its report entitled “State of Local Government in South Africa: Overview Report on National State of Local Government Assessments”, CoGTA (2009: 40) states that “With some justification, many municipalities complain that there are insufficient funds to eradicate infrastructure backlogs on water, sanitation and roads services, resulting in incomplete infrastructure projects. However, individual assessments have also

demonstrated examples of under-spending, a degree of wastage, inappropriate usage of funds, and poor oversight" (p. 40).

Furthermore, the lack of resources and money is also an outcome of a weak revenue collection process and non-payment by communities for municipal services. The weak revenue collection can be regarded again as a result of skills shortage, weak management and administrative process, in other words, a limited accountability system where there are no consequences for poor performers or non-compliant employees. That weak accountability system further causes public distrust toward municipalities.

Resource misallocation is related to allocation and expenditures in infrastructure maintenance and development, as well as skills development and staff training. It is also related to the appointment of unqualified or unsuitable employees as well as expensive consultants. Corruption can be understood as a kind of resource misallocation as resources are used for the right purposes but also gains for certain persons or groups.

Expenditure leakage is related to inefficient and uneconomical spending of finances, which involves incidences of unauthorised or wasteful expenditure; costs caused by poor workmanship and low productivity, for example the use of inferior materials that require to be renew frequently; costs for court cases and for the necessity to hire extra staff because of labour strikes, for example the Pikitup experience; and granting contracts that are not -delivered, contracts that neither deliver or decompensate. It can be argued that expenditure leakage, as well as skill shortages, is a result of lack of control, supervision and monitoring, accountability.

Matters regarding power (electricity) and water losses are common and recurrent findings of Auditor General annual reports to the Gauteng Provincial Legislature and the CoJ on City Power's Report on the Financial Statements (AG, 2010b, 2010c, 2011b, 2011c, 2012b, 2012c, 2013b, 2013c, 2014b, 2014c). For example, Auditor General (2014c, 2013c) noted that Johannesburg Water lost 35.7 per cent of the water it purchased (equivalent to R1.2 billion) in 2013/14, and 28.9 per cent (equivalent to R820 million) in 2012/13. Similarly, City Power lost 28 per cent of the electricity it purchased (equivalent to R2.3 billion) in 2013/14, and 26 per cent (equivalent to R2.1 billion) in 2012/13 (AG, 2014b; 2013b).

Weak incentive is relevant to the experience of South African local government. All respondents pointed out the weak accountability in all spheres, where non-performers, weak performers, and transgressors get away without any disciplinary action or punishment taken against them.

Demand-side failure: Demand-side failure is highly relevant to the findings of this study. But in this study, a new interpretation of the origin of demand-side failure was revealed as an effect of the mild alienation the society is experiencing.

As discussed above, the theory of four root causes of service delivery problems do not cover all factors and causes behind municipal problems in the CoJ. There are some problems and factors that could not be explained by any of these four causes, satisfactorily.

Table 7:2 Four roots of service delivery problems, and causes and factors

Four roots of service delivery problems	Causes and factors identified from interviews and document studies
Resource misallocation	• Cadre deployment • Appointment of unqualified staff or employees
Expenditure leakage	• Corruption is a biggest source of expenditure leakages • Wasteful expenditure • Poor revenue collection
Lack of incentive	• Lack of consequences which can be understood as a result of poor accountability system, weak governance and regulatory system • Poor workmanship • Poor monitoring and evaluation system • Poor public participation, which can be regarded as a result of no incentive to make it happen, and public (communities), at least in their perception that, do not have any incentive to participate. Similarly, municipalities do not see a need to be compliant with that requirement as there is no consequence for non-compliance with it.

Demand-side failure	• High expectations from communities, which is a result of poor public participation and municipalities' weakness (or failure) to include communities in planning, decision-making, budgeting, prioritising, implementation, and M&E • No-payment • Lack of participation in municipal affairs • Lack of understanding of communities about the roles in municipal affairs, which can be argued that it is a failure or unwillingness (or reluctance) of municipalities to help communities understand their roles
Factors and causes that cannot be included in the four roots of service delivery	• Legislative burden • Poor working relationship between and among different sectors, departments, communities, and civil society, which is argued by this study, as a result of the mild state of alienation • Skills and capacity shortage • Poor customer service • Weak public participation

7.2.4 A mild state of alienation

The findings of this study suggest that the four roots of service delivery problems, while covering most aspects and dimensions of municipal service delivery problems of the CoJ and its three municipal entities, does not cover all factors and causes observed in this study. Although problems such as poor revenue collection, billing problems, power and water outages stem from capacity constraints and skills shortages, high vacancy rate, insufficient infrastructure and associated constraints. Other problems such as non-payment, electricity and water theft, illegal connections and illegal dumping can be understood as outcomes of the high levels of poverty and the unemployment rate.

However, some operational and coordination problems, such as fragmentation in planning and documentation, silo-mentality in individual citizens and employees, and poor social cohesion that is manifested in relationships, communication and social problems such as poor customer care, poor working relationships between different sectors of municipalities, and municipalities and communities, weak public participation are not related to capacity constraints, or skills shortages, or financial constraints. It does not need special skills, or capacity or any financial resources to have smooth and pleasant working relationships between different sectors or levels of municipalities, i.e., between the political sector and administrative sector, or municipalities and communities, or even between councillors of different parties.

Furthermore, problems such as planning failures, weak governance performance, weak political will of leadership, weak participatory practices and processes (i.e., poor public participation), and the poor relationships amongst different sectors or departments, which reinforces (and is also caused at the same time) the silo mentality in employees and staff, and the phenomenon of fragmentation in operations as well as in the collection, documentation, management and utilisation of information and data documentation can be understood as being rooted in or stemming from mental and psychological factors not covered by the four roots of service delivery problem as argued by Devarajan and Reinikka (2004).

These reasons as well as the in-depth discussions with interview respondents and the in-depth analysis of their discussions led this study to suggest that these psychological and personality problems may have originated from the mild state of political alienation that individuals, across society and the country have been experiencing over the past few years. In the following sections, definitions and symptoms of alienation will be presented, followed by five symptoms observed in municipal sphere.

7.2.5 Definition and symptoms of alienation

Although alienation has been studied widely, there is no clear definition provided by these studies (Scheff, 2008) and it is defined by theorists and sociological researchers in many different ways (Seeman 1975). For Karl Marx (1963), Blauner (1964) and Hodson (1996), alienation means self-estrangement and the lack of self-realisation at work. Scheff (2008) argues that alienation is measured across a spectrum and is at the opposite end to solidarity. It is the isolation of individuals from a community. Schwartz (1973) refers to it as a complex of isolation, despair and powerlessness within the public that they feel that politicians do not care about them and politicians are not trustworthy. Wood (2014: 3) defines political alienation as “a generalised feeling of distance from the central political institutions, leaders, and political values of society”. Although there is no clear and agreed definition of alienation, the symptoms or signs of alienation have been established.

Signs or indications of alienation include psychological and behaviour traits. Some of these indications include poor or lack of communication (such as poor public relations or public participation) (Mandle, 1970), low social cohesion and social capital, weak

social solidarity, the loss of connection to society and shared values, feelings of being ill-treated or exploited, increased corruption and crime (Durkheim, 1951), conflict of norms, normlessness (Seeman, 1959), distrust amongst one another, feeling that they are separated from society, self-interest becomes more importance than concern for the social group, workers' estranged relationship with their work and their co-workers (Marx, 1963), disenchantment and disillusion, loss of human aspects in work relationship and mindlessly obeying the rules (iron cage), lack of cordiality and courtesy (such as poor customer relationship) (Weber, 1958).

7.2.6 Symptoms appeared in municipal sphere

There are at least five symptoms of alienation that have been observed within the municipal sphere: (1) poor communication; (2) disconnection, low social cohesion or weak solidarity; (3) distrust toward politicians and municipal authorise; (4) reduced political participation and elevated frequency of protests: and (5) lack of cordiality and courtesy of municipal staff in dealing with communities and municipal service customers.

Poor communication: Mandle (1970) holds that poor or lack of communication among stakeholders (in local government and municipality contexts, communities, residents, councillors, ward committee members are included in the categories of municipal stakeholders), is a sign of alienation. He explained that poor or lack of communication among stakeholders is a result of abandoning or un-using the capacity to communicate, which he called "alienation of the capacity to communicate". He argues that when it happens, it is a sign that that society has descended into a state of alienation.

The widely acknowledged and discussed phenomenon or experience of weak public and community participation in municipal processes and functionalities can be attributed to poor or a lack of communication among stakeholders. Interviewees stated that poor communication not only happened between the municipalities and their constituents (or communities), but also between the City Council and councillors (Interview: C3, 23 Jan 2015), and even between councillors and their own ward committee members (Interview: C4, 19 Feb 2015).

One councillor also shared her frustration at the lack of communication and cooperation, and irresponsiveness from the City Council in relation to her inquiries

and requests to obtain statistics and data related to her ward. But she stated that in her view, it is not because the City Council does not want to share the data and information with her, but that the council itself does not have those data and information. But she explained that even if the City Council does not have the data and information she asked for, she at least should be given the reason for not being able to provide the information and data (Interview: C3, 23 Jan 2015).

The lack of communication is also evident in the high profile billing crisis. One councillor argues that at the heart of the billing crisis is poor or lack of communication both between municipal staff, who register and print invoices, and their supervisors, and also between municipal employees (responsible person such as manager) and residents who are owing the City unreasonably high amounts. He stated as follows:

> If I am an employee of the City of Johannesburg, I am printing a bill that says you are owing the City R100,000. I am printing it at a printer, I see it and print it. As the person who prints it, I must firstly ask myself "is this really?" Is this household big enough to spend R100,000 a month? That is the first question that you must ask. ... I must go back and see how much they pay three months back. And I will ask myself why this bill is so huge. Even before printing it, it means I must find you or I must call you, say put a caller note, "come here", let's discuss about the bill before printing it. … But if it is someone else who care enough, who has called you and let you know and say we see something very very much worse in terms of your bill. You were billed R2,000 last month, but this month said R20,000, what is it you're using in your house? As a person who is sitting behind the desk and a computer, I must be able to ask this question. But in the City, people just print. And that causes the whole chaos (Interview: C4, 19 Feb 2015).

Another interviewee, a researcher, also stated how the councillors and mayor are not in constant communication with communities and that is one of the answers why there are service delivery protests. He stated as follows:

> Because of councillors, the Mayor are not in constant communication with people to understand what are the challenges and problems facing the people and their not responding and unresolving [sic] that particular problems and challenges (Interview: R, 1 May 2014).

Another evidence of that is the Bureaucratisation of the M&E process, as well as others like public and stakeholder consultation and participation as stated by one respondent, an ex-councillor, as follow:

> At the end of the year (Financial year) we sit down and to get budget reports done, to do planning for the next year. Councillors are supposed to get comments and feedback from communities and report back. But the process becomes bureaucratised. Instead, administrators do them, but even they outsource to external persons, consultants. I think that is the problem. I think the better system would be using two systems, where people involved. Everybody should be involved and be continuous, and should be corrective (Interview: C2, 26 August 2014).

That is a kind of Weberian Alienation, caused by bureaucratisation (or rationalisation) (Seeman, 1959).

Disconnection, low social cohesion or weak solidarity: It can also be maintained that the frequent labour unrest as a result of poor working relationship between labour and management experienced repeatedly by Pikitup is also a sign of worker alienation with their employers. The unhappiness and frustration of the people and workers (the grassroots) who are feeling excluded or marginalised from the democracy, their distrust in the political leadership of the country, and the disconnection from their leaders is also noted and commented on by Jay Naidoo, the founding General Secretary of COSATU (Congress of South African Trade Unions), and former Minister in the Mandela Government, who stated that:

> Most are alienated from their leaders, whom they see as disconnected from their day-to-day challenges. They have begun to lose trust in our democracy… There is growing foment in our land. The people in our townships, rural areas and squatter camps are bitter that democracy has not delivered the fruits that they see a tiny elite enjoying (Naidoo, 2014: para 10 & para 16).

Moreover, there is an evidence of low social cohesion or weak social solidarity among general public. The Quality of Life (QoL) Survey conducted by the Gauteng City-Region Observatory (GCRO)—conducted with a partnership between the University of the Witwatersrand, University of Johannesburg, the Gauteng Provincial Government and the South African Local Government Association (SALGA), which was probably the largest ever survey of social attitudes in Gauteng, with a sample of 27,493 respondents, and is accurate to ward level—revealed that racial attitudes of people in Gauteng is hardening. It stated that 73 per cent of black respondents and 44 per cent of white respondents in Gauteng say 'blacks and whites will never trust each other'.

Table 7:3 Respondents' trust in other people

Johannesburg	Most can be trusted	You need to be very careful	Don't know
Respondents' trust in other people in their communities (%)	78	17	5

Source: GCRO (2014: 72).

Table 7:4 Respondents' beliefs on trust between blacks and whites

Respondents' satisfaction with	Disagree or strongly disagree	Agree or strongly agree	Neither
Respondents who believe that blacks and whites will never trust each other (%)	24 (D 20 + SD 4)	65 (A 49 + SA 16)	11

Source: GCRO (2014: 80).

Note: D = Disagree; SD = Strongly Disagree; A = Agree; SA = Strongly Agree

Table 7:5 Respondents' beliefs that no-one cares about them

Respondents' satisfaction with	Disagree or strongly disagree	Agree or strongly agree	Neither
Respondents who believe that no-one cares about people like them (%)	50 (D 39 + SD 11)	39 (A 32 + SA 7)	11

Source: GCRO (2014: 80).

Note: D = Disagree; SD = Strongly Disagree; A = Agree; SA = Strongly Agree

Distrust toward politicians and municipal authorities: As stated in chapter 1, the trust of citizens toward local government and municipal authorities has been declining steadily (Powel, 2009). And local government has become the least trusted of all public institutions in the country since 2000 (CoGTA, 2015; Alexander & Kane-Berman, 2014; Powel, 2009; Idasa, 2010a, HSRC, 2009). At the same time, procurement and decision making within local government is highly susceptible to corruption (Marchant, 2015; Jolobe, 2014; Corruption Watch, 2014a; Ndletyana, Makhalemele & Mathekga, 2013; Putu, 2006). Durkheim (1951) argues that corruption is a result of anomies such as low social cohesion and social capital, weak social solidarity, the loss of connection to society and shared values. Anomy is a term

Durkhein (1951) uses as another form of alienation. Similarly, Seeman (1959) states that corruption is a symptom of conflict of norms or normlessness, which is one of Seeman's five dimensions of alienation (they are powerlessness, social isolation, self-estrangement, normlessness, and meaninglessness).

Reduced political participation and increased frequency of protest: Social scientists (Lipset & Raab, 1978; Seeman, 1975; Geyer, 1996; Geyer & Heinz, 1992) have been concerned that alienation might reduce political participation through institutional channels such as voting, and might lead to nonconventional activity like protest movements and collective violence. Denters and Geurts (1993: 460-1) discuss two modes of political alienation: powerlessness and meaninglessness. Political powerlessness means that people's trust in the responsiveness of the local system has collapsed. Political meaninglessness means that their actions or inputs into the political system (through participating in elections or decision-making processes) does not have any impact on political outcomes. The political system is deemed unresponsive to the demands of common people and therefore they do not have any incentive to participate in political processes (Campbell, Converse, Miller & Stokes, 1960). Booysen (2007), Atkinson, (2007) and Benit-Gbaffou (2006) argue that communities choose marching and protest because the formal channels of engagement and communication between the communities and municipalities is generally not working.

The Institute of Race Relations (IRR) (2015) argues that there is a clear sign of alienation of South Africa's young people—the first Post-Apartheid Generation or Born Frees—from the democratic political system. McKinley (2014) also points out that a growing portion of the adult (voting age) population has become alienated from the political system. And studies (McKinley, 2014; Schulz-Herzenberg, 2014) show that an increasing number of eligible South African voters did not even bother to register as voters. There is also a suggestion that there is a link between protests (both service-delivery protests and students' Rhodes Must Fall protests) and alienation (Ismail, 2015). He observes that a sense of alienation is shared by both white and black students together.

Lack of cordiality and courtesy of municipal staff: Both Marx (1963) and Weber (1930) discuss the loss of human aspects in work relationship and mindlessly obeying the rules (iron cage) as symptoms of alienation and link it to the lack of cordiality and

courtesy of workers or staff. As stated in Section 5.5.2 and 5.8.1, the public and communities have been frustrated with the poor personalities of municipalities manifested in poor communication, unresponsiveness, and in lack of courtesy.

7.2.7 Fragmentation, silo mentality and alienation

Fragmentation and silo mentality are discussed as causes of municipal inefficiency and low productivity. One respondent, a senior official who worked at the CoJ for over eight years, said,

> Fragmentation, all over, all over. And that's hard to overcome. And you have to be tight, tight group of senior level people as well, and then you have to carry it down so people are interacting all the way down. Quite often, they don't want to care about anything else. I got my job (Interview: SOG1, 18 February 2015).

Auditor General (AG, 2011a) repeatedly noted the failures of the municipality and municipal entities to reconcile data regularly and stated it as a source of financial mis-statement. Another problem related to fragmentation is silo the mentality of individual employee, sector, or department. Two respondents discussed the problem of silo-mentality. One said that "silo-mentality, yes, exactly like that. Department to department, they don't talk" (Interview: SOG1, 18 February 2015).

A respondent, a consultant who worked for the CoJ for over eight years, also stated about the lack of integration among planning, management and M&E, as follows,

> The other problem with local government is that they don't have a planning and management in an integrated manner. Even though they have IDPs, the actual business planning, the management, and monitoring and evaluation of them are not happened across the department, and across the M&E of municipal owned entities (Interview: Con, 28 January 2015).

The Department of Performance Monitoring and Evaluation (DPME), which is now named the Department of Planning, Monitoring and Evaluation, states that "weak coordination of departments and agencies impacting on local government is aggravated by the lack of a spatial or area-based focus and fragmented, weak and/or unreliable data" (DPME, 2012: 2). Moreover, both its report entitled "Municipal Assessment Tool (MAT) and Summary Outcomes Report" (DPME, 2013) and the presentation and briefing by Hassen Mohamed, Deputy Director-General of the DPME (he is also MAT Outcome Facilitator and Project Manager) of the Department of Performance Monitoring and Evaluation (DPME) to the Standing Committee on

Appropriations of the Parliamentary Monitoring Group (PMG) on 10 September 2013 observed, acknowledged, presented and discussed the nature or characteristics of various initiatives, interventions and assistance provided (by national and provincial governments) to the local government level is ad hoc , crisis-driven and fragmented (PMG, 2013). The “ad hoc” nature, and the lack of a structured and coherent approach to municipal development capacity initiatives were also noted by the Department of Performance Monitoring and Evaluation (DPME: 2012: 1).

The lack of an “**integrated minimum floor of norms and standards of performance** for the efficient and effective functioning of local government (administratively, politically and in terms of service delivery)”, and the lack of a “consistent and integrated set of key performance data on municipalities that brings together various pieces of information to form an integrated and holistic picture of the municipality” were observed and stated in its Municipal Assessment Tool Guideline of the Department of Performance Monitoring and Evaluation (DPME: 2012: 2) (Emphasis in the original).

It is possible to suggest that fragmentation is an outcome of silo-mentality, and silo-mentality, in turn, an effect of the state of alienation—a psychological state which occurs in individuals, society, among different races (whites, coloured, Indians, blacks, etc), or between different classes (the rich and the poor), or between different levels of employees (management and workers). Silo-mentality can occur in individuals (in mind-set, and attitude) or in groups (practices and behaviours). Fragmentation occurs in functionalities, operations, association and relationships (Figure 7.2).

Figure 7.2 Alienation, silo-mentality, and fragmentation



7.2.8 Effects of alienation on municipal service delivery

The data reveal that the state of alienation has negative effects on five areas of municipal service delivery functions. Low public participation is regarded by this study as a result of alienation. Low public participation in turn creates poor planning that is manifested in deviations between budgeting and actual revenues, expenditures, targets and actual achievements. Moreover, because of poor public participation, the municipal plans (DIPs) do not reflect communities' needs and concerns. Alienation also has negative effects on revenue collections and payment. Revenue collection is low either because staff's productivity is low or customers and communities do not pay or delay to pay, both of which can be regarded as an effect of alienation. Information and communication are also affected by alienation owing to fragmentation and silo-mentality. Alienation affects skills and production by means of reducing workers' morale and productivity, causing workers' poor attitude, and withholding of their skills and expertise. Workmanship and work ethics are also affected too. The most affected area would be customer service. As an effect of alienation, customer service staff become rude and unhelpful, and process and system lack order (Figure 7.3).

Figure 7.3 Consequences of alienation

<table>
<tr><td rowspan="2">Information and Communication
Fragmentation in information collection, gathering, documentation and storage
Information shortage, duplication, fragmentation
Information withholding both by municipalities and communities
Lack or poor flow of information, ineffectively or untimely, between workers and managements, as well as between municipalities and communities</td><td colspan="2">Skills and Production
Workers' poor attitude
Staff's low morale and productivity
Workers' withholding their skills and expertise, (as well as information)
Silo-mentality
Poor workmanship and work ethics</td></tr>
<tr><td>Consequences of Alienation</td><td>Revenues and Payments
Low revenue collection because of staff's poor productivity and inefficiency.
Low revenue, because of no or late payments from customers and communities</td></tr>
<tr><td colspan="2">Customer Service
Rude and unhelp staff
Lack of clear process that customers and communities can place their complaints</td><td>Planning (DIP) and Public Participation
Poor planning, deviations between budgeting and actual revenues, expenditures, targets and actual achievements</td></tr>
</table>

and questions • Poor customer care and services: long queue, disorganised structure, information lost	• Low public participation • Planning does not reflect communities' needs and concerns

7.2.9 Causes of alienation

Exploring the sources or causes of alienation is not a part of this study. But it can be argued that a number of social factors, especially the emergence of new wealth, conspicuous consumption, and widening inequality, persistent poverty, and high levels of unemployment, as well as the prevalent influence of consumerism, are responsible for the development of alienation.

Instead of uniting all the different classes and races, the social, economic and political situation and development of South Africa has been making the divisions more visible and widened. There is some mobility of people from one class to another. But those who ascend to a higher level of social class do not help or assist their fellow people who are stuck at the poorer level. Although the new political system liberates the whole population from the Apartheid system, the economic situation of most African people has not been acceptably improved. The aspirations, visions and hopes inspired at the beginning of the new democratic era, reinforced and fuelled by the ambitious, over-promised, constitution and promises made by governments, turned out, in the perception and minds of the general population (citizens) to be an illusion.

Moreover, the general public feel that they are separated from the wealth of their country and also from the fruits of their liberation, the political changes, and governmental transformations. This has made people frustrated, hopeless and angry. This unhappiness, hopelessness, frustration, resentment, bitterness and anger felt by the general public, especially by the poor, is further exacerbated by the high levels of inequality, the clearly visible and increasingly widening-gap between the rich, including the new political elite rapidly financially empowered by the new democratic system (Langa & von Holdt, 2012) and the poor whose life conditions and living standards have not been improved after over 20 years of political redress and changes, and the conspicuously wide salary-gap between municipal management (or bosses or chiefs) and general staff—while municipal managers get about R3.5 million a year, as a salary and various allowances, the majority of municipal staff receive about R60,000 a year (SAMWU, 2015; de Lange, 2012)—resulting in the beginning of

alienation. One interviewee, a former ANC councillor who was a well-known and well-respected struggle veteran, also discussed about class formation and how political leaders and office holders are seen by the general public and workers as in another class and they feel alienated and even betrayed.

> Because the government itself is also at the side of accumulation, class formation, so the president himself is at this class. He is integrated into that system of accumulation. So you find that like our deputy president, now Ramaphosa, is the miner, he is a mine-owner, he is a billionaire and he is very rich (Interview: C2, 26 August 2014).

Furthermore, the emerging stage of alienation has been fuelled by the public awareness of the waste of public money by reckless spending, on lavish hotel stays, imported luxury vehicles and multimillion rand parties, lubricated by Johnny Walker Blue, home alterations conspicuously pursued by politicians, government officials, municipal managers, leaders, and councillors (Interview: M&EP, 22 April 2014). One interviewee shared an experienced which happened in his community as follows:

> They (community members) know that there are projects that have been approved may not come from them but the projects in their areas and they see that that project is taking very long time to be delivered. … Grievance is that there are projects we don't understand why a year passed but nothing has happened. But we see you who suddenly driving a kind of car or making an improvement in your house that we know you can't afford from your salary. And then they see the councillor driving a very nice car all of a sudden buy very expensive car the really the top earners in our society are driving. And one or two people may be linked to who won the tender driving those cars. Those things make the community very angry when people flush their wealth while in fact there is no delivery to the community. So what the community then assume or conclude is that somebody is stealing the money that was meant for the project. They got an impression. So that is the impression, so it doesn't really matter whether it is true or not. But the community sees those and they say it is a corruption and they are becoming angry at corruption (Interview: M&EP, 22 April 2014).

That similar phenomena and events have happened and are experienced all over the country are widely stated and discussed (Langa & von Holdt, 2012). In its report entitled "The State of Local Governance from a Citizen Perspective", Institute for Democracy in Africa (Idasa) stated most people were not happy with their councillors: "66% of the respondents think that government staff and councillors benefit privately in a dishonest manner from resources intended for service delivery" (Idasa, 2011: 47).

These events and situations lead to low social cohesion and also cause people to chase and try to attain, personal wealth and status through deviant behaviour, for example through corruption and political connections (nepotism) (Langa & von Holdt,

2012), which Durkheim (1951) calls “anomie” as one dimension of the state of alienation. One respondent, who was in the Anti-apartheid struggle and well-respected former ANC member and councillor, stated how people’s attitude and mind-set toward money and wealth have been changed. He said

> So there is a tendency in the state also to be part of class-formation, so people coming in, many of them are not inspired by service to the people. Even they might have been former guerrilla comrades but they are more of “I must make it” like I need a good job, money so you see this is the problem (Interview: C2, 26 August 2014).

7.3 Integration of Weak Signals Theory into EWS framework

Weak Signal concept is originated in the strategic management and other researchers have been trying to use it in different disciplines. However, Nikander (2002) has successfully adapted and applied the concept and theory of weak signals in the field of project management. The application of weak signals theory applied by both Ansoff (1975, 1979), for strategic management, and Nikander (2002), for project management, share common characteristics in their use of weak signals. Both of them use weak signals to look for warning information about future events, and both include the need to anticipate the future. On the other hand, there are differences in terms of operational practices.

In strategic management, weak signals are monitored and observed in an external operating environment of a company or an organisation while in project management, in the internal and external environment of project. Weak signals theory is used in strategic management to detect early warnings of unexpected strategic surprises, while in project management, for unpredictable small changes and events. In strategic management weak signals analysis is used for continuous activities over several years, while in project management for the short implementation time of projects and for unrepeated once-off events.

Nikander (2002) notes that it is hard to apply Ansoff’s theory in project work because of differences in the scale of work load. But he asserts that the rationale of the theory is applicable to project work environment. Since the WST is applicable in project management, it can be argued that it is also possible to use the WST in process management. Moreover, Kaivo-oja (2012) argues that weak signals theory and concept are applicable in all kinds of different organisations, categorised by IBM’s Cynefin Research Centre. The Cynefin domains classify organisations into five

domains based on their inherent uncertainty—obvious (known), complicated (knowable), complex, chaotic and transitional domain. Municipalities, which are the unit of analysis of this research, belong to obvious or known domain, where cause and effect relations exist and will be repeated. Municipalities belong to the first domain called obvious (known) where cause and effect relations are repeatable, perceivable and therefore predictable.

The important difference between the application of WST in municipal M&E and in other fields such as strategic, disaster, business, financial management, international politics and future study is that while for municipal M&E, the method is largely based on past experiences i.e., risk database, the common problems and challenges, their causes, early warning signals and solutions. All of them were learnt and recorded from the past experiences. For other fields, the method is based exclusively on past experiences and is more and more increasingly inadequate and needs to be able to "sense discontinuities" as changes in these fields are happening faster and more unpredictably than in the field of municipal sector.

An attempt to incorporate the Weak Signals theory into the M&E system is based on a belief that the Weak Signals theory is also applicable in the an EWS framework, by making necessary adaptation and adjustment. Furthermore, it is found that integrating the Weak Signals theory and concept into the EWS framework will improve the effectiveness of M&E system. At the same time, it will extend the application of the Weak Signal theory into a new discipline and a new organisational setting and working environment.

In addition, this study found that the WST is applicable in the EWS system, incorporated into municipal M&E system, because of four reasons; first, the WST articulates and argues, and then is also proved by studies (Hiltunen, 2008; Miller and Ward, 2003; Webb, 1987; Nikander, 2002), that there are weak signals (early warning signs) about incoming problems or challenges; second, the theory provides systematic and practical steps on how to monitor and capture the weak signals (early warning indicators). Most of these steps are in line with steps outlined and proposed by UNISDR (2005) to design an EWS system; third, since the inception of weak signal concept by Ansoff in, the WST has evolved and applied by different disciplines including strategic management, international security, international politics, business

economy, financial study, military science, communication research, journalism and even public sector management, for example public banking institutions.

Fourthly, the unpredictable nature and characteristics of problems and challenges as well as changes experienced by municipalities are not the same as those experienced by organisations and institutions such as military, intelligent agencies, financial institutions such as banks and investment agencies, private sector project management. There are still some elements that are similar those organisations and fields, such as the possibility to develop risk data based on experiences and common problems and challenges, to monitor, spot or detect early warning signals or indicators, or weak signals; to study, understand and establish the relationships or connections or networks of problem causes, problems, early warnings and responses.

It is, however, important to acknowledge that the nature of problems, challenges, changes, risks or surprises of municipal service delivery problems are not as turbulent, surprising or unforeseeable as those of other organisations and institutions mentioned above. But it makes the monitoring, detecting and interpreting weak signals or early warning signals easier and more effective in developing response capabilities and strategies.

It can also be argued that unpredictable events are unpredictable because we do not understand how chains of events are caused by various factors to become one big event that is suddenly and unexpectedly happening. This point is supported by Betts (1982) who demonstrates the existence of warning phenomenon in German attack to Russia in June 1941, the Japanese attack on Pearl Harbor, the Korean War, and three Arab-Israeli conflicts, and Robinson (2012) in his study of weak signals in American history. Once we understand underlying factors and the relationships between different, invisibly connected, causes that drive the chains of events and eventually create a big event, and we can see or are aware of the development or evolution of each and every step, factor and cause, it is possible to anticipate that event well before it materialises and becomes visible. In Chapter 5 of this thesis, the chain of events that escalate into three municipal problems of water outage, billing issue, and skills shortage are presented. The long lists of early warning signs or indicators of those individual events or factors are presented in Appendix J, K, L, M, N & O.

The weak signals theory is regarded as a useful theory for early warning system because it provides a means to see, understand and use early warnings of emerging problems and challenges in order to be proactively capable to prepare and plan, in advance, to address, overcome or mitigate, as much as possible, the effects of problems and challenges.

Furthermore, this study would like to argue that there is no real difference between organisations where risks and changes are quick and dynamic, or turbulent in a word of Ansoff (1978), and organisation where risks and problems are predictable and business and working environments are relatively stable, by applying weak signals concept and theory in attempts to anticipating, forecasting, detecting, and taking advantage of early warning indicators of possible problems and challenges. Although WST was intended to apply to organisations in turbulent environments, it is still applicable in organisations that are stable and their problems and risks are less unpredictable. In fact, it can be argued that the predictable and stable nature of these organisations and their problems give extra advantages in using the theory, having an advantage of more accurate predictions of incoming problems and therefore able to provide relatively correct warnings and effective response strategies.

Although municipalities have the simple organisational structure and nature in terms of the complexity of their problems and challenges, the current capacity and management level of municipalities are hardly enough to effectively apply Weak Signals analysis and approach in their M&E system. However, there is still a great potential for municipalities that have enough resources in terms of financial, human and management quality, to be able to adopt the weak signals analysis and approach in their M&E systems, and can become effective and productive by anticipating, addressing, controlling and solving most of their problems and challenges, with the help of EWS that is integrated into the M&E system.

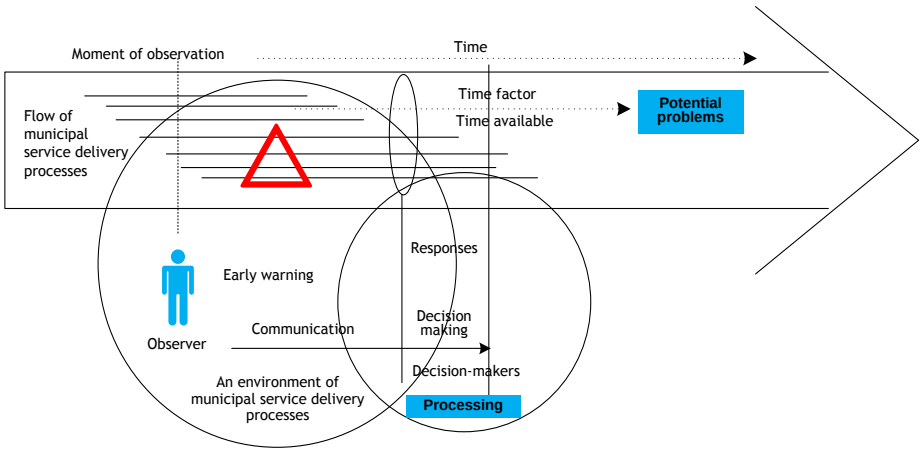
7.3.1 Early warning phenomenon in a municipal service delivery environment

The nature of the early warnings phenomenon, factors relating to the phenomenon, and its relation to municipal service delivery processes is illustrated in Figure 7.4. In the figure, municipal service delivery process is depicted as a chronological flow of events. There are two phases in the phenomenon and several factors occur in it. The first phase is an observation and communicational phase. An observer will note the

flow of events, receive, interpret and communicate messages. Municipal service delivery processes have a chronological flow of steps and events, from which an observer obtains information and communication. To obtain the desired information, various methods are used. Observers, then, interpret the information. The second phase is a phase of analysing the information obtained and making decisions to take actions. That phase involves a decision-maker or decision-makers. Based on information and data provided by an observer or observers, he or she or they make decisions about planning, organising, mobilising resources in order to take pre-emptive actions concerning the upcoming problems and challenges. In the, time factor is an important concept in the early warning phenomenon in a municipal service delivery process environment. It is the amount of time available between the moment observer notices and catch signals and the moment potential problems became actual ones. Capturing, interpreting, communicating and preparation and planning necessary actions or responses have to be taken place during that time frame. (Figure 7.4).

Ansoff's theory of weak signals has, primarily, three important parts—sources of signals, decision-making process, and time available to defuse incipient problems and issues. According to Ansoff (1984), there are three sources of weak signals or early warning indicators, which could be collected and utilised. These sources are environmental, internal and performance trends. These three sources are applicable to the context of municipal service delivery process.

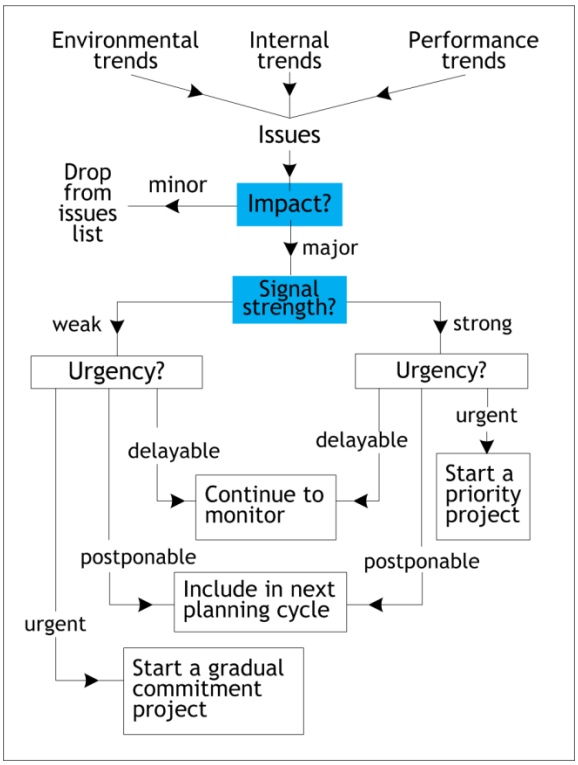
Figure 7.4 An early warning phenomenon in a municipal service delivery process environment



Source: Adapted from Nikander & Eloranta (2001: 389).

The intervention or corrective actions that the responsible persons or department can devise or implement will depend on the levels of potential impacts implied from and calculated based on these signals: Impacts of the future problems (which could be minor or major) and strength of signals (which can be strong or weak). Based on this information and decision, different actions and matter of urgency are calculated. When issues are delayable, monitoring will be continued. When issues are postponable, necessary actions and steps will be included in next planning cycle. However, when issues are urgent and strength of signals about the issues is strong, quick pre-emptive or preventive actions need to be taken. But if strength of signals about issues is weak, but issues are urgent, based on the time availability and severity of the impacts, a gradual commitment is needed to take actions in near future (Figure 7.5).

Figure 7.5 Warning signals strategic issue management decision



Source: Adapted from Ansoff, 1984: 366.

Between the time when early warning signals or indicators are detected and the time when the full impacts of the relevant problems occur, there are four sub-periods—times for decision, for planning and negotiation, for mobilisation and preparation for implementation, and for undertaking the corrective actions (Nikander, 2002: 86) (Figure 7.6).

Figure 7.6 The sub-periods of time available between early warning and full impact of problems



Source: Nikander, 2002: 86.

7.3.2 Integration of two supplemented theories into the WTS

In order to design an M&E system that serve as an EWS, the weak signals theory alone was not sufficient. Moreover, in its nature, the WST is conceptual, and the research problems, i.e, early warning characteristics of an M&E system, are, in nature, operational. To supplement the Weak Signal Theory, as stated above, two complementary theories are used in this research—Four roots of service delivery problem that was expounded by Devarajan and Reinikka (2004) and later adopted and used by the World Bank to study public sector service delivery problems; and "four essential elements of EWS" discussed by Basher (2006: 2170) and later adopted and practised by the United Nations (UN) in its disaster management. Integrating these two operational theories into a conceptual theory strengthen and expend the practical and operational dimension of the WST.

7.3.3 Contributions to the remedies on the WST's limitations

The key term in the theory is "weak". But Ansoff himself and researchers who studied and discussed about the theory do not discuss about the term "weak". It is a weak term—difficult to define and measure. However, it should be understood that the definition and meaning of "weak" depends on the context where it is applied.

Another key term in the theory is "signal". Ansoff did not define "signal" clearly about signal. Coffman (1997) filled this gap by discussing three kinds of signals—signals that are beyond our perception; signals that are within our perception and we recognise them easily; and signals that are within our perception but which we do not recognise because of our failure, negligence or incapability to be aware of them. Weak signals theory is about trying to receive and use the third kind of signals that we

miss or fail to receive, not because they are out of our perception but because of our inability to detect or receive them.

So far, interpreting weak signals is still a subjective activity. The theory, initiated by Ansoff and improved and expanded by many researchers later, has not provided a methodology to make interpreting weak signals less subjective, and more objective and therefore less debatable regarding the interpretation of the signals and also determining response strategies. One of the main reasons for the subjectivity of weak signal interpretation is the nature of risk, changes, surprise or future problems and challenges that are generally unpredictable and capricious. Another reason is the nature of signal evolution into strong, clear and concrete information about future risks or problems. According to Ansoff (1975; 1979) and later a number of researchers (Ansoff & McDonnell, 1990; Ansoff, 1984; Hiltunen, 2006, 2007, 2008a, 2008b; Kuusi & Hiltunen 2011; Nikander, 2002; Uskali, 2005; Kothari, 2010), there are five steps where weak signals evolve into strong signals. There is also a trade-off between the amounts or length of time available and level of certainty the signals reveal, and need to be balanced by signal interpreters, who are both signal monitor and detector, and decision makers who are responsible for determining response strategies.

The WST, to date, does not deal with or provide a means to deal with these matters. However, this research, through literature review about various information theories and monitoring and evaluation theory and empirical data collected and interpreted by this study, discovers that there is a prospect of improving the WST by integrating relevant theories that explain the value of information, rational relationships between a chain of events, causes of problems and problems. By integrating relevant and related theories into the WST, its subjective nature of signal interpretation can become less subjective and therefore there will be a better chance of getting consensus between signal observers, who are also interpreters, and decision makers involved in the early warning process. It will also be able to provide a better means of detecting weak signals, in other words early warning indicators, because problems, causes of problems and interrelationships among different problems could be more understood due to their improved predictability.

As mentioned above, the WST was, originally, developed and applied for the fields and organisational settings where risks, challenges and changes are highly unpredictable and the speed of changes are also very high. However, gradually, the

concept and theory of weak signals has been adopted and adapted by several fields and organisational structures where their risks, problems and changes are less predictable and their environments are less turbulent. In the same vein, the basic rationale of this research is that the concept and theory about weak signals could be applicable in M&E system of public sector although risks, challenges, changes and problems of public sector are less uncertain and its business environments are relatively stable and predictable. The predictable and stable nature of their problems, challenges and risks makes the process of monitoring, detecting, interpreting weak signals in these organisations and their operational environment easier and more effective than in other fields and organisations in which the weak signals concepts and theory was originally and initially applied.

Another important shortcoming of WST is its lack of discussion on the cost of mis-warning. Since signals are weak, fragmented and incomplete in providing an accurate estimation of their meaning, sources, impacts, and, in turn, determining responses, the interpretation of these signals and declarations are not definite in their predictions—predictions, and therefore, warnings could be right as well as wrong. However, there is no discussion in the theory on the costs of wrong predictions, and preparation and planning to address risks or problems that are unpredictable. However, this point is discussed in in literature of early warning system (Choo, 2009). It is, therefore, worth making the point that the theory of weak signals has a prospect of becoming more vigorous and useful by integrating the ToC and logic model, which are essential concepts of M&E. Furthermore, it is reasonable to anticipate that by incorporating essential elements of EWS, information theory, ToC and logic model into the WST, an integrated theory of Weak Signals could be achieved.

It is possible to overcome the problems of wrong warnings or mis-warnings, by having a clear guideline and policy regulation that allows signal observers and interpreters to make reasonable, but accountable mistakes in their warnings. Comprehensive training as well as complete consultation and communication between EWS teams and decision makers should get as much consensus as possible on issues about what kinds of warning-mistakes are acceptable. Moreover, there should be a hearing section with a committee of stakeholders to get fair and just decisions whenever there is a dispute over a warning decision.

7.4 Extended M&E territory

This study discovered that the fundamental objectives and functions of M&E and those of an EWS are different. An EWS is more related to Strategic Management, Risk Management and Disaster Management as they relate to the considerations, anticipation and preparation of possible risks in their plans and allot or budget necessary resources for the purpose of addressing those risks. On the other hand, M&E does not have the aspect of anticipation, planning and preparation for the worst possible risks in its plan, and the concept of early warning is not present in it.

M&E has a “retrospective nature” with the aim to learn and analyse what has been done (Wilson, 2002), while an EWS has an “anticipative nature” that looks to the future situations or conditions, watching for possible problems based on a pre-established set of problems that can occur in the processes or programmes. M&E does provide “early indications of progress or lack thereof in the achievement of intended results”, means of tracking the actual performance or measuring the situation against what was planned or expected according to pre-determined standards (UNDP, 2002: 102).

One participant of the focus-group discussion gave an illustration of what M&E is. His example is memorable and clear. He said, for example when we are going from Johannesburg to Pretoria, there are a number of landmarks along the way, such as big buildings of international companies, DBSA (Development Bank of Southern Africa) office in Midrand, the Tollgate, and UNISA (University of South Africa) at the entrance of Pretoria. By seeing these landmarks, we know that we are on the right track. However, his M&E system does not provide any information or instructions about any hurdles or problems that can be experienced along the journey.

7.4.1 The birth of proactive M&E (pM&E or eM&E)

This is where a proactive M&E system fills the gap. By incorporating an EWS in it, the Proactive EWS system can anticipate possible problems, understand their early warning indicators, and build and prepare capacity to address or solve those possible problems.

There is another illustration about what a proactive M&E (pM&E) is. pM&E is like bringing (or having) life-saving equipment such as a parachute, or a life-boat when

taking a flight or ship. It is because of the knowledge that there is a possibility of a problem during the journey. Conventional types of M&E such as iM&E and rM&E only bring a map and other necessary articles, hoping that the journey will be smooth. It is true that conventional types of M&Es can provide early indications of whether or not they will arrive at their destinations on time. But there is no information about possible problems or dangers.

7.4.2 Different types of M&E: iM&E, rM&E and eM&E

M&E is divided into different types. The two main types are implementation-focused M&E and result-based M&E (Kusek, & Rist, 2004). There will be a new type of M&E (the proactive one), when the EWS concept and components are incorporated in it. For the sake of terminology (or jargon), let us use the names implementation-focused (iM&E), result-based M&E (rM&E), and EWS incorporated M&E (eM&E, it can also be called (pM&E) which stands for “proactive M&E”. EWS incorporated M&E (eM&E) and proactive M&E (pM&E) are the same thing.)

The differences among these three M&E types are the stages (or phases) they watch for (or monitor); and questions they ask. An EWS incorporated M&E (eM&E) covers three stages of a programme or project: planning, inputs, and processes (or activities) stages. A results-based M&E (rM&E) covers two stages: Processes (activities), and outputs stages. Another difference between a traditional M&E and eM&E is the timing of interpreting or evaluating the data and information collected through monitoring. In M&E, monitoring is conducted routine, daily and on-going, while evaluation is episodic (Wilson, 2002). But in M&E incorporated with an EWS, both monitoring and evaluation are required to be routine, daily and on-going activities. Data are collected and interpreted (or evaluated) “simultaneously” because of time-sensitive nature of an EWS.

The types of questions they ask are also different. Implementation-focused M&E systems are designed to answer the ‘accountability’ questions. Results-based M&E systems are designed to address the “so what” questions. EWS incorporated M&E systems are designed to respond to the “what if” questions. Questions different M&E types ask are stated in Figure 7.7.

Moreover, their identifications are also varied. iM&E identifies itinerary throughout the processes. rM&E identifies rationalé and justifies the significance or importance of intervention. eM&E identifies barriers and problems that could be encountered during the process.

Based on those differences of the three M&E types, this thesis argues that the current M&E system cannot function as an early warning system (EWS). In order to be able to serve as an EWS, the municipal M&E system has to be transmuted into a proactive system, by incorporating the concept and components of an EWS. It means that the M&E system needs to have components of risk (or problems) anticipation, identification and response preparations in the way of strategic management, risk management, and disaster management.

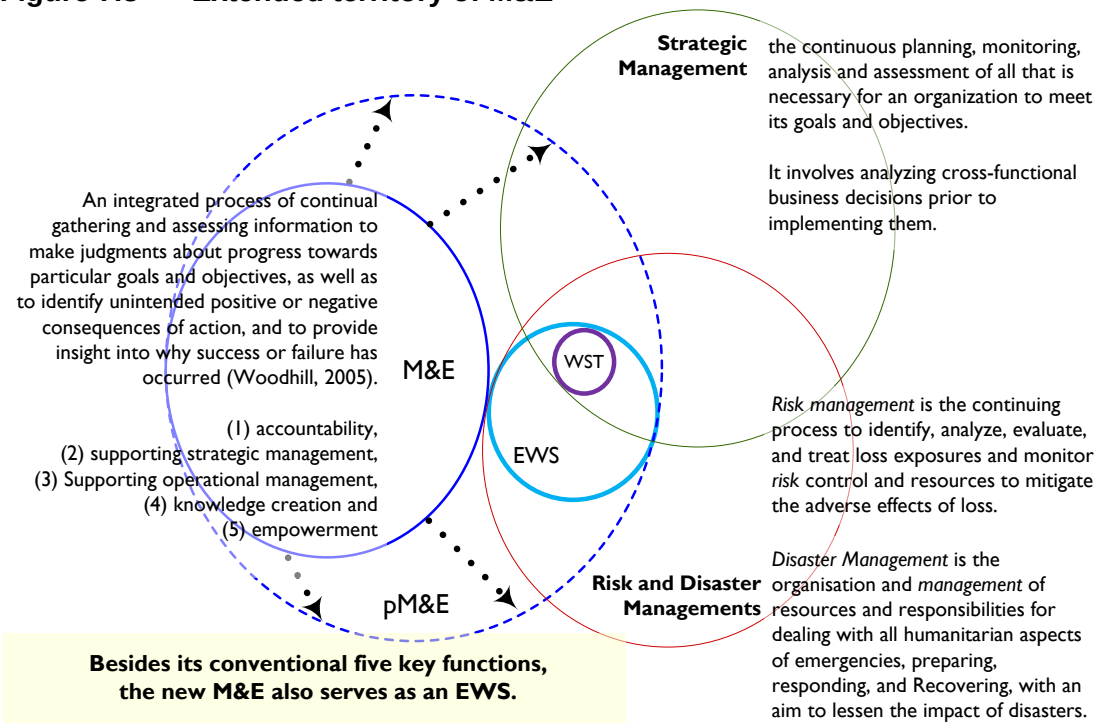
Figure 7.7 Three types of M&E and their stages and questions

EWS incorporated M&E (eM&E)			
		Results-based M&E (rM&E)	
	Implementation-focused M&E (iM&E)		
Planning	**Inputs**	**Processes (Activities)**	**Outputs**
What barriers and problems could be encountered?	Did they mobilised the needed inputs	So what activities have taken place?	So what about the fact that outputs have been generated?
If when barriers or problems are encountered, what are the solutions and how can we be prepared?	What are the limitations and weaknesses in the needed inputs	Did they undertake and complete the agreed activities?	So what that the outputs from these activities have been counted?
What capacity needs to be developed		Did they deliver the intended outputs (the products or services to be produced)?	What are the goals of the organisation?
What warning signs do those barriers or problems have			Are they being achieved?
			How can achievement be proven?

Source: Based on Kusek & Rist, 2004).

As discussed in the Chapter 2 and Chapter 6, there are two kinds of EWS definition: narrow definition and broad one. Because of these two definitions, there are also two kinds of EWS: Gross EWS and specific one. The conventional M&E serves as a gross EWS, i.e., providing information of whether or not the set objectives or goals of programmes, projects or work would not be achieved. In order to make an M&E system to be able to serve as a specific EWS, it has to be integrated the application or the methods of weak signals theory, as well as the early warning components (i.e., four essential elements of an EWS). A new kind of M&E (i.e., pM&E or eM&E) extends the M&E territory, which has functions and objectives of both strategic management, risk management and disaster management. Figure 7.8 shows the extended territory of M&E, in which EWS (a function of risk and disaster management) as well as the use of WST (applied by strategic management). Because of its extended territory and added functions and objectives, the new M&E (or eM&E or pM&E) can now serve as an EWS, as required by legislation of South Africa's local government.

Figure 7.8 Extended territory of M&E



LEGEND

WST: Weak Signals Theory, which is originally used in strategic management but later adopted by many other fields.

EWS: Early Warning System, which is primarily used in disaster management (DM).

pM&E: Proposed Model of proactive M&E (pM&E) that is Integrated with EWS components, and therefore serve as an EWS.

Source: My own conceptualisation

7.5 Conclusion

This chapter contains discussions on two topics: factors affecting municipal service delivery performance, and different types of M&E. There are three main points in this chapter. First is the suggestion that municipal problems are more about public participation than other factors. Second is the argument that problematic personality and psychological aspects of municipalities are originated in a mild state of alienation. The third point is the interdiction of Proactive M&E (pM&E), which is M&E incorporated with EWS. In the following chapter, the research questions would be answered and conclusion will be presented.

Chapter 8

ANSWERS AND CONCLUSION

This chapter has three main parts. First, it presents answers to three research questions posted in the beginning of the thesis (Chapter 1). Second, it discusses three contributions made by this study. Finally, it provides suggestions for future studies.

8.1 Introduction

The research examined the extent to which the current M&E system of the City of Johannesburg contains the components of an EWS. The purpose is to design and propose a model of M&E system that can serve as an EWS and enable municipalities to receive advance information about potential problems, and then to implement the necessary corrective interventions. There are three main questions this study tried to answer. The first question is a theoretical question: whether or not the Weak Signals Theory can contribute to the effectiveness of an M&E to serve as an EWS, as required by legislation. The second question asks to what extend the current M&E system of CoJ has EWS characteristics and components. And the third question is about modification of the current M&E system in order to integrate the components and characteristics of an EWS, so that it can serve as an EWS. This chapter presents answers to the research questions. Knowledge contributions of this study and suggestions for further researches are also discussed.

8.2 Answers to the research questions

The research posted three main questions, as stated in the Chapter 1 (Introduction Chapter). This section discusses those questions and answers revealed by the research, followed by contributions made by this study.

8.2.1 Question 1: Weak Signals Theory

The central research question is: 1. Can the effectiveness of M&E system be improved by integration of the weak signals theory, and why?

Answer: The effectiveness of M&E system can be improved by integration of the Weak Signals Theory (WST).

The findings state that the rationale of the Weak Signals Theory (WST) is applicable to an M&E and an EWS. And the WST theory can contribute in the effectiveness of an M&E system by integrating its approach into an Early Warning System. The limitation of the current M&E system is its inability to inform municipalities about incoming (or emerging) problems, i.e., providing early warning signals of these problems. The WST provides means to capture weak signals (early warnings), to interpret and use the information. The basic idea of WST is that "strategic surprises" (problems) do not appear out of the blue, weak signals (early warning of these surprises or problems) exist, and can be detected. Although weak signals (early warning) are weak, imprecise and difficult to analyse, it is still possible to take some actions to defuse or mitigate, or at least lessen the impacts of, problems on organisation. Another contribution of WST in the effectiveness of an M&E system is its active scanning (monitoring) approach, which is different from conventional monitoring in M&E system (Guillaume, 2011:). Moreover, Ansoff's three levels of filters (between signals and observers) and four kinds of delays (between detecting and understanding signals and taking preventive actions) are also useful and important in planning and implementing an M&E system (Ansoff, 1979, 1984) (see Section 2.4.1 for discussion on the WST).

However, this study finds out that it would be hard to apply the WST to an early warning system (EWS) for "a municipal service delivery process", and to use it in the current local government context, for three reasons: capacity constraint, political, and multi-sectorial nature of municipal system.

EWS is a group-activity. A good flow of information and work processes is essential. The key word in an EWS is "early". Expedition is key and indispensable in an EWS. Time is thus a determining factor for a system to be effective or not, or successful or failed. All steps and a chain of events are linked together in physiological interdependence and operate as a functioning whole. Only one delay in one step can mean an opportunity is lost to prevent or address an approaching problem. When the theory was first introduced, Ansoff (1979) discusses four kinds of delays that can make the use of weak signals theory ineffective. They are identification delay, verification delay, political delay, and cultural delay. Similarly, Choo (2006) also states

four gaps: knowledge gap, capacity gap, knowing-doing gap, and communication Gap (See Section 2.4.1 for the discussion on Ansoff's four delays and Choo's four gaps).

Communication Gap is wider in a local government context than other organisational contexts. This study identified ten joints (fault-lines)—within the local government structure—that connect different sectors and groups of municipalities, which cause the communication process to be difficult and long. These joints or fault-lines exist (1) among councillors from different parties; (2) between councillors and Mayoral Committee; (3) between the municipal council and the municipal administration; (4) between management and staff; (5) between the council (the city) and communities; (6) between councillor and ward committee members; (7) between ward committees and communities (CDWP, 2014: Case No. 21); (8) among ward committees in regions; (9) between the municipality (the council) and municipal entities; (10) labour union (such as South African Municipal Workers' Union) and the municipality or municipal entities. Such barriers or layers become more challenging when the working relationships between and among those sectors and levels are not smooth.

The political dimension and relationship tensions occurred between councillor and ward committee members stated by one respondent, who himself is a councillor is instructive and memorable. He said:

> Ward committee members are supposed to advise and assist the councillor. But they are not advising the councillor. They are now competing with the councillor, as some of them they come from political parties. They see themselves as better than councillor. That is how they are supposed to work but currently they are not working because meetings are not taking place. Those meetings are supposed to empower councillors when they go the Council (Interview: C4, 19 Feb 2015).

8.2.2 Question 2: Characteristics of an EWS in the current M&E systems

The second research question is: To what extent does the current M&E system of municipalities have the characteristics of an EWS?

Answer: The finding indicates that the four essential elements of an EWS do not exist in the current M&E system. An evidence that the municipality and municipal entities have established a knowledge data-base has not been found in all (26) interviews,

two focus group discussions, or official documents of the CoJ and three municipal entities. The data indicate that early warning signals exist and there are people who detect and understand those early warning signals and indicators (Interviews: M&EP, 22 April 2014; Con, 28 Jan 2014; SOCoJ5, 4 March 2014; FGD, 23 June 2014 and 24 November 2014) (see appendix O, the list of Early Warning Signals). When early warning information is communicated, for example CDW reports that warn about the possibility of community unrest and protests, adequate actions are not always taken (Interview: DCogta, 21 Aug 2014).

And a systematic procedure to utilise those early warning signs in order to defuse, prevent or mitigate the future problems, is not in place. A budget is also not allocated for EWS purposes, such as to mitigate the upcoming problems (Interviews: SOCoJ5, 4 March 2014; 24 November 2014). Most importantly, there is no evidence that response capability is developed (Interview: DCogta, 21 Aug 2014). In short, the current M&E systems of municipalities have very little characteristics of an early warning system (Interviews: DDPME, 19 July 2011; DDBSA, 6 July 2011). Findings about the municipal M&E systems are discussed in Chapter 7.

The prime reason for lack of EWS components is the current M&E system was not designed to provide EWS functions. An M&E system has to be a proactive type, which is incorporated with an early warning system. Discussion about Proactive M&E (pM&E) system is presented in Chapter 6.

8.2.3 Question 3: How to modify the current M&E Systems so that it serves as an EWS

The third research question is: Can the current M&E system of municipalities be modified and upgraded to integrate the components and characteristics of EWS in it, so that it can alert key players and stakeholders of developing problematic trends in the last stage of municipal service delivery processes, i.e., the implementation stage?

Answer: The current M&E system of municipalities can be modified and upgraded so that it can serve as an EWS and can alert key players and stakeholders of developing problematic trends in the last stage of municipal service delivery processes, i.e., the implementation stage.

In order to modify it, three things need to be done. The first step is to establish an EWS teams with qualified staff. Two full-time staff and two part-time staff, seconded from the M&E team would be enough for the beginning stage. Resources required for an EWS are described in Chapter 5. The second step is to incorporate an EWS system into the existing M&E system. The existing municipal M&E frameworks have to include an extra section, articulating the direction and guide-lines of how to integrate the EWS components into the framework, and also the budget for this. Also the EWS activities have to be allocated. A discussion on how to integrate an EWS system into the current M&E system is presented in Chapter 7. A sample EWS framework is also presented in Chapter 7. The third step is to make sure to get all stakeholders to buy-in into the process, and political commitment from the leadership. According to Wilson (2002), "widespread stakeholder buy-in" is indispensible to make a system effective and sustainable. Without it, a sound and perfectly designed M&E system will fail. Thus, a large-scale, participatory process is essential to build ownership and buying from the start. One of the essential parts in making EWS work in an organisation is to have a champion who has the power and authority in the organisation and is also willing to take the ownership of the system (Gilad, 2004). The Mayor, or the Municipal Manager should be the champion.

In order to be able to detect and know in advance of any deviations, problems, threats and barriers, municipalities need to have a Proactive M&E system that can serve as an EWS. The EWS process is discussed in Chapter 6, and a Proactive M&E system (pM&E) is described in Chapter 7.

8.3 Contributions to knowledge

The most important and necessary part of a PhD thesis is presenting new knowledge to the world, saying something, and then proving it, that has never been said or demonstrated before. This chapter tries to serve that purpose. First, it briefly presents three statements, or claims, that are related to the research problem and research questions posted at the beginning of this research project as well as at the beginning of this thesis. Second, it tries to substantiate those three statements or claims primarily with primary data collected and attained from interviews, focus group discussions, observations from field, and document study, followed by supplementing with secondary data such as media reporting, articles and previous studies and research reports. Since detailed discussion of findings and discussions have been presented in the previous chapters, the discussion in this chapter will be brief, with the

simple aim of highlighting and repeating some main points, in other words the contributions, made by this research.

8.3.1 Contribution to the understanding of municipal problems: introducing the concept of alienation as a cause of the municipal problems

All municipal problems, challenges and factors are discussed in literature, various studies, reports as well as with or by respondents. There is a general understanding and agreement on what the problems are but the systematic and complete data-base of problems, or risk data-base has not been developed or established. One of the findings or discoveries this research reveals as an underlying cause, through conducting root cause analysis is the state of alienation in the country as well as in organisations and municipalities. Nature of alienation is observed, albeit subtly, relationship both between the political sectors and administrative sectors of local government, and also between the municipalities and their constituents or communities.

One of the contributions this study made is the extension of the notion or concept of alienation from economic discovered and discussed by Hegel and Marx to a broader social phenomenon. The bridge, albeit tiny, to this wider application is the concept of alienation between municipalities and their constituent communities, as well as between broader government, including small numbers of well-connected and economically benefitted new rich, and the general population, who are generally disappointed and unhappy about their lives and lack of hope for their future as well as for their children.

Moreover, studies on local government, municipalities or municipal service delivery have not revealed or discussed the concept or notion of alienation as one of the root causes of municipal service delivery problems as well as tensions both between the political sector and the administrative sector of municipalities and between municipalities and their constituents or communities.

8.3.2 Contribution to the application of Weak Signals Theory

Another contribution this study made is the extension of the use of Weak Signals Theory. The WST has been, since its inception in the1960s, tested and applied in various fields, such as military and intelligence science, strategic management,

disaster management, business management, financial management, international politics and future studies.

As discussed in the Chapter 2: Conceptual Framework, the Weak Signals Theory does not apply the risk knowledge database as the way the early warning system of natural disaster management uses. The integration of risk knowledge database into the Weak Signals Theory could make the monitoring and interpreting the weak signals more efficient. The suggestion to apply the risk knowledge database in the Weak Signals Theory, as well as the Decision Support Model of Early Warning (DSMEW) (discussed in the Chapter 2), can be also regarded as a theoretical contribution made by this study.

Another bridge, albeit tiny but important, to this wider application is the use of WST in public sector management, in general, and in the management of municipal service delivery processes as well as the public sector, more specifically in municipal M&E systems. This study could be regarded as the first study on the feasibility of applying WST in such public sector domain, which has never been tried, although the public sector has been trying to use or apply many management techniques and tools applied by the private sector.

As a very first study to explore the feasibility or suitability of the use of WST in the municipal sector as well as in the M&E field, the findings and analysis of this study are by no means regarded as comprehensive or exhaustive. Many more, systematic, carefully-structured and administered studies are expected and should be encouraged to work on this issue, i.e., the use of WST in local government or the municipal sector and also in the M&E field.

8.3.3 Contribution to M&E domain and its functions

Another contribution this research made is the need to extend or redefine the M&E domain and its functionalities in order to have EWS purpose as one function of M&E system. The current functions and objectives of M&E system do not have an EWS purpose. EWS is more related to Risk Management. However, the legislation requires municipalities to have an EWS function in their M&E frameworks and functionalities.

Moreover, the environments municipalities operate in may be different, but the roles, responsibilities, functionalities, challenges and problems faced by them during their

service delivery processes are essentially the same, and the findings, lessons learnt, recommendations and the model and framework of an EWS and its roles and place in M&E systems discussed and outlined in this research and provided in this thesis could be regarded as universal, adaptable and useful for all municipalities.

Table 8.1 Contributions

1	Introduction of the concept of alienation to the municipal service delivery problems
2	Introduction of weak signals theory and approaches in local government context, and the integration of risk knowledge database in the Weak Signals Theory
3	Integrating EWS components into M&E domain, and proposition of a new section of EWS in a M&E framework

8.4 Suggestions for further researches (future studies)

Naturally this research cannot be regarded as the definitive research in this area. As a result of the research findings, potential areas for further research can be identified three areas that should be explored in future research.

8.4.1 Comprehensive, but narrowly focused studies

The field of local government is wide, complex and intricate with multifaceted components interrelated and connected with different sectors and stakeholders. Comprehensive studies should be conducted by narrowly focusing on just one particular issue, challenge or problem faced by local government or municipalities. Such studies should be organised, planned and arranged by the national government, with complete cooperation from provincial and local governments, and also cooperation with research and educational institutions.

While conducting this research, an impression was developed that officials and employees as well as leaderships and politicians from local government and municipalities were not willing to reveal their experiences, views and information they have and know. It took the researcher more than three months, 16 emails and five phone calls, just to get a letter allowing the researcher to do research about the CoJ. Five officials in senior management positions declined to meet and answer the researcher's interview questions. The typical reasons they gave were that they were not directly related to the issues that the research was studying or exploring; and they did not have enough experience and in turn information and knowledge that was

useful for the research. The reasons for their unwilling or lack of interest should also be explored and understood. But, again, it is impossible to study those reasons without the full authorisation, assistance and cooperation from the national and provincial governments.

8.4.2 Comprehensive root cause analysis

Root cause analysis discussed in this research is intended to serve as a sample one that could be used as a starting point. The experience of this study reveals that RCA is more appropriate for group study rather than single or individual studies. Therefore, in order to be able map-out and understand all factors related to municipal problems and challenges, a systematic and comprehensive RCA should be conducted by municipal officials and staff who have long working experiences and therefore have the tactic knowledge about the municipal structures, the dynamic and tensions among various separated sectors and stakeholders that are impossible for external researchers to understand or study within short period of times.

The point is that any studies on local government municipalities to be systematic and comprehensive, and in turn useful and valuable, have to be conducted by people who are in the inner cycle of municipalities. Without the assistance and cooperation of the people from municipalities, it is difficult to study and understand the true picture and realities of municipal working systems, structures, challenges, and problems, factors underlying and causing the challenges and the problems.

8.4.3 Causes and effects of alienation

The effects of alienation on local government performance have not been in the mainstream of local government and municipal studies. The focus of this study is on an early warning system (EWS) for municipal service delivery processes. In order to understand about early warning signals related to municipal problems, it is necessary for this study to explore the factors behind municipal problems. While studying these factors, the issue of alienation emerged. Data revealed that there are some tensions or distance in the relationships between municipal workers and municipal managements as well as politicians. It was also discovered that the relationships between municipalities as a whole entity and communities or the public are not harmonious and in many instances, misunderstandings, unhappiness and grievances exist.

At the very beginning of this thesis, a quotation of Mac Maharaj was stated. Maharaj (2009) observes that public servants are demoralised and devalued, and asks how they can be transformed to become efficient, proud and caring public servants. This study would like to conclude that such mental state or personalities of public servants that include municipal staff and employees, as well as unresponsive and poor-participative nature of municipalities that communities and the public perceive could be understood as an outcome of the 'mild' state of alienation that society and the municipal working environment experience. The word 'mild' is used to imply that the state of alienation is at a developing or beginning state. But it is intended to stress that that 'mild' state of alienation could develop into a state of alienation unless necessary corrective or preventative actions are taken in time.

Table 8.2 Suggestions for future research

1	Comprehensive and narrowly focused studies on each municipal problem
2	Comprehensive Root Cause Analysis for each municipal problem
3	On causes and effects of alienation on municipal processes particularly in municipal workers and public participation

8.5 Conclusion and overall messages

The municipal Performance Management and M&E systems are required by various legislation to serve as an early warning system (EWS). The preliminary study of this research, however, discovered that the current municipal (M&E) systems do not have the essential components of an EWS and, as a result, cannot alert key players and stakeholders of developing problematic trends in municipal service delivery processes.

Based on two premises—first, the current level and quality of municipal service delivery performance could be improved and in turn become better capable of fulfilling its constitutional obligations; and second, the existing M&E systems are not functioning or serving as an EWS—this study examined the extent to which the current M&E system of the City of Johannesburg contains the components of an EWS. To this end, three research questions were formulated (Section 1.4) and a theoretical framework (Section 2.4) was constructed with three main theories—the theory of weak signals, four roots of service delivery problems and four essential components of an EWS—to explore and understand the functionalities and performance of municipal service delivery, and the roles played by M&E systems,

which are by legislation required to serve as EWSs. The main theory this study uses is the Weak Signals Theory, which argues that it is possible to detect, foresee or predict problems or changes or surprises by means of an EWS which can indicate that these problems, changes or surprises transmit or hint that they are imminent, well before their actual arriving. Two more theories are also applied to supplement the Weak Signals theory. The first complementary theory is that the four roots of service delivery are related to the root causes of problems in the municipal service delivery process. The second complementary theory is the four essential components of an EWS, used in order to design an EWS.

This study reviewed the literature on M&E, early warning systems (M&E), weak signals theory (WST), the service delivery processes of local government in South Africa and factors affecting the municipal service levels and performance. The literature on M&E, EWSs and WST were reviewed in order to explore and understand the essential components, characteristics and functionalities of an EWS and approaches and mechanisms to monitor and detect early warning indicators or signals. The literature on municipal service delivery processes, their challenges and problems, and their factors and causes were also reviewed with an aim to understand the municipal service delivery processes, problems and challenges, the causes and factors behind these problems and challenges, and their early warning signals or indicators.

It is necessary to reiterate that this study is not about the quantities and levels of municipal service delivery performance, but rather about the municipal M&E systems and its functionalities as EWSs. And the main pillar of the research on how an EWS could improve performance regardless of the nature of service delivery. This research is thus primarily situated in a monitoring and evaluation (M&E) framework.

This study revealed that, firstly, by integration the approaches and methods of the WST, municipal M&E systems can improve their effectiveness and also can serve as EWSs. The answer to the first research question, therefore, is that The effectiveness of M&E system can be improved by integration of the WST. It, however, notes that the current “municipal” M&E systems are not conducive to fully apply the WST, for three reasons: capacity constraint, a highly politicised culture, and the multi-sectorial nature of the municipal system.

Moreover, the finding indicates that early warning signals exist and there are people who detect and understand those early warning signals and indicators. But a systematic procedure to utilise those early warning signs in order to defuse, prevent or mitigate future problems, is not in place. A budget is also not allocated for EWS purposes. And this study found no evidence that a knowledge (risk) data-base has been established or that a response capability has been developed. The answer to the second research question, thus, that the current M&E system of the CoJ does not have the four essential elements of an EWS.

Furthermore, the study also observes that there are different kinds of M&E systems, for example reactive or proactive M&E systems. One of the main differences between a reactive M&E system and a proactive M&E system is that different questions are asked and different indicators are developed at the planning stage of the M&E process (see Section 7.4.2). The answers to the third research question is that in order to be able to detect and know in advance of any deviations, problems, threats and barriers, municipalities need to have a Proactive M&E system (pM&E), and this study proposes a new section on EWSs that should be integrated into the current M&E framework of the CoJ (Section 6.3).

As contributions to knowledge, the overall messages of the thesis are fourfold. The first is a new explanation or interpretation of the root causes of municipal problems, stating that a mild state of alienation due to the nature of the highly politicised culture is prevalent amongst office workers and is one of the root causes of many problems which municipalities have. The implication of that observation suggests that when there is a state of alienation, there will be problems regardless how many resources are provided and available, how skilful and capable municipal officials and workers are, and how perfect policies, legislation, and systems are. The discussion on the effects of alienation on municipal functionalities and performance can be regarded as a point of departure from the four roots of service delivery theory of Devarajan and Reinikka (2004), as that theory does not discuss the psychological and social dimensions of municipal service delivery problems.

Second, this study identified the two main areas in municipal service delivery problems as expectation gaps and municipal personalities. The finding indicated that although there are gaps between communities' and consumers' expectations and the actual quality and performance of municipal service delivery as well as some

inefficiency issues in municipal operations, the levels and performance of the municipality—CoJ, City Power, Johannesburg Water and Pikitup—are adequate and above the acceptable levels, according to the internal benchmarks and standards. And the public are generally satisfied with municipal performance, except in the areas of customer service and relations. One of the important findings this study made is that it is the personality of municipalities, rather than their performances, that is source of communities' and the public's unhappiness and disappointment.

The third is its finding that a conventional M&E system does not serve as an early warning system, although it provides early warning indicators. The implication of that finding is that the territory of M&E needs to be redesigned, extending its purposes, objectives and functionalities; so that it can accommodate the concept of an EWS and serve EWS functions, as required by municipal legislation. The discussion on narrow and broad definitions of an EWS is worth paying attention to when drafting laws and legislation. The integration of an EWS section, provided in this thesis (in Chapter 6), into the municipal M&E framework will enable the municipal M&E system to be capable to serve as an EWS, as stipulated by the municipal legislation (Treasury, 2012; RSA, 1998, 2000, 2001. See Section 1.1, at page 34National).

The fourth point is its discussion on the applicability of weak signal approach or methods in a local government context. This study argues that although the rational and fundamental principles and ideas of weak signal theory are applicable to a local government context, and to municipal M&E systems, the application of its methods and approaches, such as to observe weak signals, to interpret the signals, to disseminate and communicate the knowledge about impending problems, and to make decisions about responses to those incoming problems, would be hard, even if not impossible, to use in municipal M&E systems, for three reasons: capacity constraint, political, and the multi-sectorial nature of the municipal system.

Although the full application of the approach and method provided by the Weak Signals Theory, might be hard to apply in the "current" evolutional stage of municipalities' operational development (for the three reasons discussed in Section 8.2.1), at least the components of the WST approach and methodology are still applicable in the M&E system of municipalities, for example exploring and understanding the weak signals (early warnings) of municipal problems and crises, conducting active monitoring or scanning, applying the decision support model of

early warning (DSMEW), and understanding and overcoming Ansoff's three levels of filters between signals and observers, delays between identifying and understanding warning signals and implementing mitigative actions, and Choo's four gaps (discussed in 2.4.1 and 8.2.1).

Moreover, there is a hope that in the near future the full application of WST approach and method could be applicable in municipalities for three reasons. The first reason is the existence of many good, ethical, honourable people, workers, leaders and managers all over the country, who have, sincerely, good intentions and good will for the country and the general public. Throughout this study, and long data-collection periods, I have met many good and respectable public servants as well as many politicians who, genuinely, love the country, and really want to improve the living-standards and well-being of the general public. The second reason is the functioning education system, which is, although its performances are faltering compared to international standards, still in a good state, still provides good educational qualities and standard, and produces world standard leaders in different fields and areas. The third reason is the well-functioning institutions, such as the justice system, although law enforcement has to be strengthened radically; the civil society is still strong and vibrant; and the democratic system, with its limitations, flaws and weaknesses, is still functioning pretty well and it is still an exemplary system for fellow African countries. These are the things South Africa has to be proud of, and to have faith, optimism and inspiration on which necessary, much-needed, reforms and the restructuring of some parts of government institutions, departments and social structure should be based and grounded on.

I would like to conclude the thesis with one interesting wish expressed by one respondent. He said, "If possible, I would like to mix all races and nationalities in a big wok and make all look the same and feel the same" said one respondent (Interview: CM5, 6 February 2015). Another respondent also states his wish as "I want all of us to be colour-blind or to become colourless" (Interview: SOG2, 12 March 2014). I am also, at the same time, remembering a poem of a 4th grader in New York City, which won a prize in the NYC Elementary Schools a few years back (plf515, 2012). It asks:

Would a rainbow of one colour be wonderful?

Chapter 9

APPENDIXES AND REFERENCES

Appendix A: Letter from City of Johannesburg. Permission to conduct research.

CITY OF JOHANNESBURG

Metropolitan Centre, 158 Loveday Street. Braamfontein
P O Box 1049, Johannesburg, 2000
Tel: +27 11 407 7558 Fax: +27 11 339 5704

12 May 2015

Student assistance to conduct research in the City of Johannesburg

Dear Sir/Madam

This is to request that PhD candidate at the Wits School of Governance, Myo Naing, be assisted with information for his study.

Request synopsis: *"I request your permission to conduct research in your institution and to access archival data. This will involve having interviews with councillors, senior managers and staff, with an aim to understand challenges and difficulties faced by the City of Johannesburg and its three municipal entities—City Power, Johannesburg Water and Pikitup during their service delivery processes. There will be no risk involved in participating in this study. The interview will run for less than 45 minutes and will be held at their offices or places that are the most suitable for them."*

Assistance to the student by Pikitup, Joburg Water and City Power senior officials or communicators of the respective entities will be appreciated.

Please note that all information shared with the student must be filed and stored as future reference and institutional records.

Sincerely

Mr. Loyiso Ntshikila
Chief of Staff
Office of the Executive Mayor

Appendix B: Ethics clearance certificate

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Naing

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H14/11/07**
PROJECT TITLE	Early warning characteristics of monitoring and evaluation system on the Functionality of municipal service delivery processes
INVESTIGATOR(S)	Mr M Naing
SCHOOL/DEPARTMENT	Wits School of Governance/
DATE CONSIDERED	21 November 2014
DECISION OF THE COMMITTEE	Approved unconditionally
EXPIRY DATE	02 June 2017
DATE 03 June 2015	**CHAIRPERSON** (Professor T Milani)

cc: Supervisor : Professor A Mc Lennan

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10005, 10th Floor, Senate House, University.

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

Appendix C: Interview guide

(1) What are the common problems and barriers during the service delivery processes?

(2) What are the signs, signals, or indicators that precede and indicate the approach of these problems, challenges and crises?

(3) What are the ways to know and communicate these signs, signals and indicators?

(4) What are the factors affecting the performance of municipal service delivery processes: resource constraint, which includes skills-shortage, management weakness, regulatory burdens?

(5) What normally goes wrong in the service delivery processes?

(6) What are the common problems and challenges that hinder the service delivery process

(7) The underlying situation and root causes of these problems

(8) What mistakes do they make often and regularly?

(9) How do they know that they are on track to deliver?

(10) How are M&E information on service delivery processes, activities, functionalities, outputs and outcomes reported and analysed?

(11) What are the likely blockages and plans to solve them?

(12) What are the key performance indicators (KPI) and measures (revenue, quantity, quality, access)

(13) What are the key areas of concern (from communities' view and experiences)

Appendix D: Numbers of persons interviewed, and dates of interviews

Twenty six persons from four different groups—public servants and municipal officials and staff; Civil Societies; Community members; and researchers and academics—were interviewed. Their positions, ranks and groups they belong to, as well as Code numbers referred to them are described in the following table. In coding the name, the following system of code formulation was devised and applied:

C refers to councillor
SO refers to senior official
SOG refers to senior official from the Gauteng provincial government
SOCoJ refers to senior official from the City of Johannesburg (CoJ)
SOME refers to senior official from municipal entity
D refers to Director
DDPME refers to director from DPME
DDBSA refers to director from DBSA
DCogta refers to director from Cogta
CM refers to community member
R refers to researcher
M&EP refers to M&E practitioners

Table D1 Numbers and descriptions of interviewees, and their code names

Persons	Descriptions: Positions, ranks, and groups	Codes
6	councillors (one is former councillor, and six are current councillors)	C1—CG
2	senior officials from the Gauteng provincial government	SOG1—SOG2
6	senior officials from CoJ	SOCoJ1—SOCoJ6
1	senior official from municipal entities	SOME1
1	director from DPME	DDPME
1	director from DBSA	DDBSA
1	director from CoGTA	DCogta
6	community members	CM1 – CM6
1	researchers	R
1	M&E practitioners	M&EP
Total numbers of interviewees		**26**

Table D2 Dates of interviews and codes

Numbers, description	Codes	Interview Date
5 Councillors	C1—C5	C1, 31 July 2014 C2, 26 August 2014 C3, 23 Jan 2015 C4, 19 Feb 2015 C5, 25 March 2015
2 Senior Officials from the Gauteng provincial government	SOG1—SOG2	SOG1, 18 Feb 2014 SOG2, 12 March 2014
6 Senior Officials from the City of Johannesburg (CoJ)	SOCoJ1—SOCoJ6	SOCoJ1, 6 Nov 2013 SOCoJ2, 6 Nov 2013 SOCoJ3, 6 Nov 2013 SOCoJ4, 6 Nov 2013 SOCoJ5, 4 March 2014 SOCoJ6, 9 April 2014
1 Senior Officials from Municipal Entity (JW)	SOME1	SOME1, 13 Nov 2015
1 Director from DPME	DDPME	DDPME, 19 July 2011
1 Director from DBSA	DDBSA	DDBSA, 6 July 2011
1 Director from CoGTA	DCogta	DCogta, 21 Aug 2014
5 Community Members	CM1 – CM5	CM1, 19 March 2014 CM2, 11 April 2014 CM3, 17 June 2014 CM4, 20 Sep 2014 CM5, 6 Feb 2015
1 Consultant	Con	Con, 28 Jan 2014
1 Researcher	R	R, 1 May 2014
1 Academic	A	A, 8 August 2014
1 M&E practitioners	M&EP	M&EP, 22 April 2014
26 persons in total		

Appendix E: Note of preliminary interview

Date: 6 November 2013
Place: Thuso House, 66 Siemens Street, Johannesburg
Time: 10:00 – 11:15 am
Interviewees: SOCoJ1, SOCoJ2, SOCoJ3, SOCoJ4,

This is a note of an Preliminary study or interview and a quick on-site-observation. In order to maintain anonymity and confidentiality, the names of interviewees and respondents are always, as is consistent with responsible research practice, withheld. When necessary, the code numbers are used to refer persons and to discuss the interrelatedness of his or her discussions. A visit was paid only to meet and chat in a friendly way with municipal staff and officials and also to familarise myself with the office. There was also an intention to establish rapport with respondents before conducting actual interviews (Chadwick, Bahr & Albrecht, 1984).

When I arrived at the office, we took our seats at a big round table. Then, the respondent (SOCoJ1) disappeared for a few minutes. Then he came back with three other people—two were women and one was a young man. We made introductions, in a very friendly and warm way. I then talked about my research briefly. Since I thought this was just a normal chatting to arrange for conducting interviews in sometime in the near, I did not audio-record the conversation. But it turned out that they were answering my research questions and suggesting how I should narrow down. The respondent SOCoJ2 knows about the research process as she has recently completed a research project—she stressed that it was not for a PhD.

The following are the main points of our conversation.

(1) Municipal service delivery process is wide. I should limit my study components of it.

I realised that what I thought about the municipal service delivery process is not what they are really doing. In the municipal service delivery process, there are many steps that involve consultation with the community, which was introduced recently—I did not ask when it was introduced but I will follow up with that question later. After consultation, prioritisation was discussed and decided. The IDP for the next five years

was drawn. Based on the IDP, yearly prioritisation and detailed operational plans were discussed and drawn.

Now I understand that what I meant by the “municipal service delivery process” is not the whole process but day to day operational steps of providing services—I will only study four basic services, i.e., electricity, water, waste refusal and sanitation—through observation and interviews with community members. In other words, what I am going to study is the last stage of service delivery process. It is about day-to-day functionalities or operations of delivering services to end users, i.e, community members.

(2) The City of Johannesburg (CoJ) recently started taking a wider role in the operations of municipal entities.

The CoJ established the municipal entities and is the main share-holder of them, owning 55% of their shares. The respondent SOCoJ1) added that he does not know who own the other 45%. (It should be noted that according to the IDP 2012-2016 report of CoJ, the CoJ is the sole owner of the City Power and Joburg Water.

The municipal entities used to be independent and the CoJ did not involve or micro-manage them. But because of their inefficiency in operation, now the CoJ involves itself and micro-manages in the planning and operations of the municipal entities. It is good news for my study because the purpose of my study is to give the CoJ a better overview and over-sight powers to manage and lead the delivery of services. The EWS (Early Warning System) designed and proposed by my research will be a useful tool or mechanism for the CoJ in managing municipal entities.

(3) The main problem is the issue of non-payment for service

The respondent SOCoJ1 said in his view, the main problem that municipalities are facing is the issue of non-payment for service. He also stressed the underlying factors of this issue, which involve poverty, unemployment, urbanisation, mushrooming informal settlements—slum, the effect of the financial crisis that entails job-losses or retrenchments of many people. I noted non-payment issues in the literature. I can relate it to expenditure leakage issues such as avoidable wasteful expenditure and not strictly or systematically following due legal process to collect debt and revenue as well as fee-collection processes that are in place in the municipal system. I will follow

up with these interrelated issues. I think that these issues could be related to skills-shortages, which is one component of the resource-misallocation factor.

(4) Provision of houses (this is not relevant to my research. But it is good to know about it too.)

It is not related to my study. But I took note of the discussion. The respondent SOCoJ2 said municipalities are not directly providing houses to community. The municipalities, i.e, the government, no longer build houses and give them to community members directly. Instead, they are provided indirectly. The municipalities are supporting businesses to be successful and thrive by providing an enabling environment such as infrastructure. When businesses thrive and grow, they can create many jobs for communities and community members will get jobs and regular incomes and then will be able to buy and own houses.

(5) Municipalities also study common problems of their operations and functionalities

The respondent SOCoJ3 said municipalities also study common problems and challenges of their operations and functionalities. In annual reports of municipalities, I could find problems and challenges that municipalities noted and discussed. She said I should look up reports of all six metropolitan municipalities—she gave me the website address where I can get their reports—and also compare the problems and challenges against each metropolitan. She also pointed out that I can also find these questions, i.e., common problems, challenges and barriers, in Mayoral speeches. Then one person left and returned with three thick books, and showed me some pages about problems and challenges. The respondent No. SOCoJ1 joked that Comrade Myo, you must not be afraid of thick books, a PhD is too much reading.

(6) Another problem facing municipalities is environmental degradation.

The respondent SOCoJ 2said one of the problems municipalities are facing and have to address is environmental degradation. There will be a seminar on it next year. She said I should also look at these problems. She said they can introduce me to people who are working on that issue. The respondent SOCoJ4 also said that they will introduce me to a strategic department of the CoJ that is dealing with problems and challenges and finding way to address and tackle them. He added that I should detail my questions so that they could know exactly what I wanted to know and can answer clearly and exactly.

(7) Researches about municipalities are also valuable for municipalities and the government

One respondent SOCoJ2 pointed out that researches about municipalities are valuable for municipalities and the government by making a contribution to improving municipal performance. Municipalities as well as the government want to know about problems, barriers, challenges and factors that affect the performance of municipalities. The kind of win-win-situation attitudes shown by municipal staff is encouraging for students and researchers who are studying municipalities and local government.

Appendix F: Data management

Metadata standards and procedures

Simple descriptive and administrative metadata was used to store, discover, identify and access collected data. Interviews were audio-recorded, in MP3 format. Moreover, notes were also taken during all interview sections. Information about each interview such as interviewer, interviewee, date, place, duration, main points, follow-up issues in next meeting and appointment were kept securely in a confidential password-protected database.

Each interview followed a questionnaire format. The questionnaire was in a text file. Literature such as documents and academic journal articles were either in Microsoft Word format are PDF format.

Site-observation notes were taken in the format of Microsoft Word, Microsoft Excel and Notepad. Whenever necessary and possible, photographs were taken: permissions and consents were taken before taking photographs. All photographs were in JPEG image format. The audio files, interviewees' consent forms, database, and text files were stored and saved in one main password-protected folder.

The data were collected in the Microsoft formats for Microsoft Word, Microsoft Excel, PDF, Notepad, MP3, MP4, JPEG image, Microsoft Visio. The types of data involved site observation notes, transcribed interviews, audio-recordings, pictures, literature review notes,

The size of the data was approximately 200 pages of interview transcripts—about 15 pages for an interview that last between 35 minutes to a little bit more than one hour: The average length of interview is approximately 30 minutes; approximately 50 pages of site observation notes, approximately 30 audio clips, and 10 pictures. All of these data were less than 200 MB.

Confidentiality, anonymity and encryption of the data

A written memorandum that ensures confidentiality were given to all interviewees. All interview data were confidential. Moreover, all data were anonymised. All data were

saved in a single password-protected folder. The signed consent forms for interview were stored in lockable filing cabinets, separately from the collected research data.

Quality Assurance Plan

The study was conducted in English and no translation was required. Confidentiality was maintained by storing interview recordings and interview transcripts in password-protected files, and using codes such as numbers rather than persons names and locations. Only the researcher had access to all data. When the thesis supervisor and examiners need to check the data, there will be no names or personally identifying information on any/all interview transcripts and any/all notes.

Some interview transcripts were sent to a number of interviewees who wanted to see and check, for accuracy. Although they were requested to add or remove any information if they desire to do so, no one did so. All printed documents, transcripts and notes were stored in lockable filing cabinets. The signed consent forms for interviews were also stored in lockable filing cabinets.

Data formats, Storage and back-up schedule

The formats for data were in Microsoft Word, Microsoft Excel, PDF, Notepad, MP3, MP4, JPEG, Microsoft office visio. All data were stored in a password-protected folder and backed-up in a desktop computer, a lap top, a DVD. The regular back-up DVD were kept by one of my friends who lives about 10 kilometre away from my home. Site observation notes, interview transcripts, thesis chapters, and important literature and papers were stored on-line. All printed documents and notes were stored in lockable filing cabinets.

The study uses free open source software such as Stories Matter and Mendeley. These two software formats as well as Microsoft office suite will not be expired in the foreseeable future.

Directory and file naming convention and ensuring confidentiality

Code numbers were used for all interview audio clips and transcripts. Names of respondents and participants in the study and information collected were kept confidential. Permission were however sought for the views to be quoted. In transcripts, notes and the dissertation, Names of interviewees were not mentioned.

Files of research papers, documents, reports and literature were named using the APA referencing system.

Documenting methods and procedures

Literature review papers were documented with the American Psychological Association (APA) style citations and reference APA documentation. Instead of names of particular people such as interviewees, code numbers were used in all notes. Printed notes were stored in lockable filing cabinets.

Data deposit and duration of data retainment

The data will be destroyed after five years of successfully completion of the study, in front of one or two staff of the Information Technology (IT) department of the university.

Appendix G: List of municipalities

whose performance management and M&E frameworks and policies of municipalities stress the importance of an EWS in M&E systems

CoJ (2012),
Gauteng Provincial Government (2010)
CoGTA, Province of KZN, (2012),
Swellendam Municipality (2013),
Amathole District Municipality (2013),
Frances Baard District Municipality (2006),
Buffalo City Municipality (2010),
Nyandeni Local Municipality (2010),
U-Mas'pala Municipality (2008),
Mogale City Local Municipality (2010),
Umdoni Municipality (2009),
Matatiele Municipality (2012),
Emnambithi – Ladysmith Municipality (2012)
Amajuba District Municipality (2013)

Appendix H: Personal experience (difficult to get responses from the municipality)

Whilst conducting this research, the researcher had the personal experience of trying to get permission from the CoJ to conduct interviews, and observation, and also to get official documents. More than 10 emails were sent to the Municipal Manager, Mr Trevor Fowler, whom I had met at the 2014 Presidential Local Government Summit and explained to him about my research and requested that he grant me an official letter of permission to conduct my study. He agreed verbally and showed interest in my findings. But I received no responses. More emails were sent, weekly, to all email addresses found in the CoJ website. Still no response was received again.

I talked about it to one of my friends, who is a deputy director at the CoJ, and he advised me not to send an email (the same email) to many persons together, because people who received my email would think that another person will respond — the typical 'it's not my job syndrome'. So, I sent an email to those email addresses, but this time individually, and I got a response, but it did not answer my email. The respondent in question is an MEC, and he forwarded my email to another person asking him to assist me. Getting that particular contact was a significant break-through. Eventually, I got a letter of permission to conduct my research at the CoJ and its three entities, which is a really nice letter (See Appendix 1), after more than two months, and writing more than seven emails. The person who sent that nice letter apologised to me and said that they thought I have been assisted. Apart from emailing, I also phoned all phone numbers found in the CoJ website, but no one answered. Sometimes the phone rang for a long time while sometimes it was busy (engaged). I even wrote to the CoJ Faceback page, requesting permission, but to no avail.

Another experience was related to Johannesburg Water (JW), concerning the JW Water Week Exhibition at the Alexandra Taxi Rank and Alexandra Plaza (on 3 - 6 February 2014). Four Water Week Exhibition programmes were announced in newspapers as well as on the JW website. I wanted to attend them. I went to the place where the Water Week Exhibition programme announced that they were to be held, i.e., at the Alexandra Taxi Rank and Alexandra Plaza, during the week that was announced. I found that no-one from JW was there and no one at those places knew about the Exihibition. I phoned the contact number of Johannesburg Water found on

its website. I emailed to the advertised email address about the Water Week Exhibition programme as I was really interested to attend. No responses were received.

I also had another experience at Pikitup. I had a really helpful and informative interview with Pikitup's Chief Operations Officer. He was really nice, (brotherly) friendly and supportive to me. His interest in my research as well as my eventual findings was apparent and he even requested me to share my findings with him as well as my EWS system once I had completed my study. At the interview, I requested to him to allow me to go with a Pikitup refuse collecting truck for a week. He agreed and asked me to write a formal letter, which I did. After almost one year, I had not received a reply, although I followed up repeatedly.

Appendix I: National Treasury's check list

	Description	
	Standard	**Service Level**
	Solid Waste Removal	
1	Premise based removal (Residential Frequency)	
2	Premise based removal (Business Frequency)	
3	Bulk Removal (Frequency)	
4	Removal Bags provided(Yes/No)	
5	Garden refuse removal Included (Yes/No)	
6	Street Cleaning Frequency in CBD	
7	Street Cleaning Frequency in areas excluding CBD	
8	How soon are public areas cleaned after events (24hours/48hours/longer)	
9	Clearing of illegal dumping (24hours/48hours/longer)	
10	Recycling or environmentally friendly practices(Yes/No)	
11	Licenced landfill site(Yes/No)	
	Water Service	
1	Water Quality rating (Blue/Green/Brown/N0 drop)	
2	Is free water available to all? (All/only to the indigent consumers)	
3	Frequency of meter reading? (per month, per year)	
4	Are estimated consumption calculated on actual consumption over (two month's/three month's/longer period)	
5	On average for how long does the municipality use estimates before reverting back to actual readings? (months)	
	Duration (hours) before availability of water is restored in cases of service interruption (complete the sub questions)	
6	One service connection affected (number of hours)	
7	Up to 5 service connection affected (number of hours)	
8	Up to 20 service connection affected (number of hours)	
9	Feeder pipe larger than 800mm (number of hours)	
10	What is the average minimum water flow in your municipality?	
11	Do you practice any environmental or scarce resource protection activities as part of your operations? (Yes/No)	
12	How long does it take to replace faulty water meters? (days)	
13	Do you have a cathodic protection system in place that is operational at this stage? (Yes/No)	

	Electricity Service	
1	What is your electricity availability percentage on average per month?	
2	Do your municipality have a ripple control in place that is operational? (Yes/No)	
3	How much do you estimate is the cost saving in utilizing the ripple control system?	
4	What is the frequency of meters being read? (per month, per year)	
5	Are estimated consumption calculated at consumption over (two month's/three month's/longer period)	
6	On average for how long does the municipality use estimates before reverting back to actual readings? (months)	
7	Duration before availability of electricity is restored in cases of breakages (immediately/one day/two days/longer)	
8	Are accounts normally calculated on actual readings? (Yes/no)	
9	Do you practice any environmental or scarce resource protection activities as part of your operations? (Yes/No)	
10	How long does it take to replace faulty meters? (days)	
11	Do you have a plan to prevent illegal connections and prevention of electricity theft? (Yes/No)	
12	How effective is the action plan in curbing line losses? (Good/Bad)	
13	How soon does the municipality provide a quotation to a customer upon a written request? (days)	
14	How long does the municipality takes to provide electricity service where existing infrastructure can be used? (working days)	
15	How long does the municipality takes to provide electricity service for low voltage users where network extension is not required? (working days)	
16	How long does the municipality takes to provide electricity service for high voltage (HV) users where network extension is not required? (working days)	
	Sewerage Service	
1	Are your purification system effective enough to put water back in to the system after purification?	
2	To what extent do you subsidize your indigent consumers?	
	How long does it take to restore sewerage breakages on average	
3	Severe overflow? (hours)	
4	Sewer blocked pipes: Large pipes? (Hours)	
5	Sewer blocked pipes: Small pipes? (Hours)	
6	Spillage clean-up? (hours)	
7	Replacement of manhole covers? (Hours)	

	Financial Management	
1	Is there any change in the situation of unauthorised and wasteful expenditure over time? (Decrease/Increase)	
2	Are the financial statement outsources? (Yes/No)	
3	Are there Council adopted business process structuing the flow and managemet of documentation feeding to Trial Balance?	
4	How long does it take for an Tax/Invoice to be paid from the date it has been received?	
5	Is there advance planning from SCM unit linking all departmental plans quaterly and annualy including for the next two to three years procurement plans?	
	Administration (Customer services)	
1	Reaction time on enquiries and requests?	
2	Time to respond to a verbal customer enquiry or request? (working days)	
3	Time to respond to a written customer enquiry or request? (working days)	
4	Time to resolve a customer enquiry or request? (working days)	
5	What percentage of calls are not answered? (5%,10% or more)	
6	How long does it take to respond to voice mails? (hours)	
7	Does the municipality have control over locked enquiries? (Yes/No)	
8	Is there a reduction in the number of complaints or not? (Yes/No)	
9	How long does in take to open an account to a new customer? (1 day/ 2 days/ a week or longer)	
	Procurement process	
1	How many times does SCM Unit, CFO's Unit and Technical unit sit to review and resolve SCM process delays other than normal monthly management meetings?	
	Other Service delivery and communication	
1	Is an information package handed to the new customer? (Yes/No)	
2	Does the municipality have training or information sessions to inform the community? (Yes/No)	
3	Are customers treated in a professional and humanly manner? (Yes/No)	

Source: National Treasury (2015)

Appendix J: Factors, causes, problems and EWS from Interviews

ACRONYM

A&M Administration and management
C&C: Coordination and communication
CS: Customer Service
DS: Demand-side
EWS: Early Warning signals
HR: Human Resources (or human capital)
PP: Public Participation
RS: Revenue Service
SCM: Supply Chain Management (Procurement)

Table J1 Summary of factors, causes, problems and EWS from Interviews

Exogenous		**Supply-side factors**							**151**	**Demand-side**	
	17	**Planning**	**59**	**Inputs**	**35**	**Processes**	**42**	**Outputs**	15		6
		Leadership	11	HR	22	A&M	23	Customer service, CoJ	8		
		Governance	13	Finances	4	Supervision	1	Electricity	0		
		IDP	6	Infrastructure	3	Monitoring	7	Water & sanitation	5		
		PP	29	Equipment	0	SCM	5	Refuse removal	1		
				Information	5	C&C	6	Revenue service, CoJ	1		
				Systems	1						

Table J2 Factors, causes, problems and EWS from Interviews

DS	DS	Entitlement of communities, expectations from the government to provide everything
DS	DS	High expectation
DS	DS	Illegal damping
DS	DS	non-payments of people who can afford to pay
DS	DS	people do not care about environment and neighbourhood
DS	DS	people lack awareness about their roles and responsibilities
EWS	A&M	A vision and mission is clearly articulated
EWS	A&M	A vision and mission is established
EWS	A&M	Attitude of "But we've always managed like this"
EWS	A&M	Decisions repeatedly postponed
EWS	A&M	Management performance contracts are applied properly
EWS	A&M	Management performance contracts are not established
EWS	A&M	No of Un-renewed contracts, due to the Sun Set Clause
EWS	A&M	Normal basis for staff promotions are not clear
EWS	A&M	Normal basis for staff promotions are not followed
EWS	A&M	number of disciplinary cases
EWS	A&M	Performance contracts are not effectively managed
EWS	A&M	Running behind the targets
EWS	C&C	Councillors do not report back to BECs regularly
EWS	C&C	Increasing tension with key stakeholders, whether it is poor credibility with the press, disenchantment with the unions, or disaffected pension trustees
EWS	C&C	Lack of Communication
EWS	C&C	number of meeting held among leaderships and management
EWS	C&C	number of meeting held among management and employees
EWS	C&C	Public participation policies and plans are not communicated to the committees
EWS	C&C	REC does not communicate political decisions to Caucus meetings
EWS	C&C	REC does not communicate political decisions to deployees
EWS	C&C	REC poorly communicate political decisions to deployees
EWS	C&C	REC poorly communicates political decisions to Caucus meetings
EWS	C&C	role definitions are not communicated

EWS	CS	Bad Relationship with customers
EWS	CS	issues of complaints
EWS	CS	number of customer complaints in a day (or a week)
EWS	CS	number of trainings provided in a month
EWS	CS	percentage of complaints responded or resolved
EWS	CS	time duration required to resolve or response to complaints
EWS	CS	level of customer satisfaction with affordability of tariffs (score out of 10)
EWS	CS	level of customer satisfaction with basic services (score out of 10)
EWS	CS	number of calls answered within 20 seconds in a day
EWS	CS	number of calls answered within 30 seconds in a day
EWS	CS	number of calls dropped (does not include calls dropped within 5 seconds) in a day
EWS	CS	number of connection made in less than 14 days in a month
EWS	CS	number of connection with no advance on the meter for 90 days
EWS	CS	number of disciplinary cases initiated
EWS	CS	number of grievances lodged by customer
EWS	CS	number of limiter connections with consumption > 200 liters per day
EWS	CS	number of queries resolved at first contact
EWS	CS	number of street theatre events held in a month
EWS	CS	rate calls answered within 20 seconds, in a day
EWS	CS	rate calls answered within 30 seconds, in a day
EWS	CS	rate calls dropped (does not include calls dropped within 5 seconds) in a day
EWS	CS	rate connections made in less than 14 days in a month
EWS	CS	rate meters billed on actual readings in a month
EWS	CS	rate meters read in a month
EWS	CS	rate of complaints resolved
EWS	CS	rate of queries resolved at first contact
EWS	CS	revenue improvement per customer service agent
EWS	CS	total calls answered in a day
EWS	equipment	frequency of equipment broken down
EWS	equipment	frequency of vehicles broken down
EWS	equipment	number of vehicles broken down
EWS	equipment	numbers of equipment broken down

EWS	equipment	time of vechiles broken down
EWS	finance	age of debt
EWS	finance	amount of budget, enough or not
EWS	finance	amount of cash flow
EWS	finance	amount of debt
EWS	finance	amount of profit or loss
EWS	finance	amount of revenue
EWS	finance	amount of surplus or deficits
EWS	finance	amount of unauthorised expenditure
EWS	finance	amount of wasteful expenditure
EWS	finance	amount spent on overtime, per month (Rand thousand)
EWS	finance	bad debt level
EWS	finance	Bad debt losses
EWS	finance	cash flow level
EWS	finance	Declining Profits
EWS	finance	Going over budget
EWS	finance	Large unpaid bills
EWS	finance	level of power losses
EWS	finance	level of profit or loss
EWS	finance	level of UFW (Unaccounted for Water)
EWS	finance	non-payment level
EWS	finance	revenue level
EWS	finance	Spending exceeds budget
EWS	Governance	Accountability of Mayoral Committee to Council is not managed properly
EWS	Governance	are there debatings in meetings
EWS	Governance	Caucus does not meet, or hardly meets
EWS	Governance	Caucus does not provide direction to party deployees on matters before Council
EWS	Governance	committee members do not clearly understand what is required of them in the committees
EWS	Governance	councillors do not attend council meetings
EWS	Governance	frequency of Caucus meetings
EWS	Governance	frequency of Mayoral Committee meetings
EWS	Governance	frequency of Troika meeting

EWS	Governance	key functionaries do not attend Caucus meetings
EWS	Governance	lack of effective coordination of issues between key functionaries
EWS	Governance	municipality does not hold scheduled council meetings regularly
EWS	Governance	number of councillors attend council meetings
EWS	Governance	number of Mayoral Committee meetings
EWS	Governance	poor or weak relationship between key functionaries
EWS	Governance	Portfolio Committees has not been established
EWS	Governance	rate of councillor attendence at council meetings
EWS	Governance	role definitions are not clearly
EWS	Governance	Speaker does not manage the affairs of Council effectively
EWS	Governance	Speaker' office is not managing the outreach programme for Council
EWS	Governance	The Committee Chairs do not effective manage the business of the committees
EWS	Governance	The Council has not adopted a council procedural bylaw for council meetings
EWS	Governance	The municipality has not established ward committees
EWS	Governance	Troika does not meet, or hardly meets
EWS	Governance	Ward committees are not adequately capacitated in terms of their roles
EWS	Governance	Ward committees are not competent in terms of their roles
EWS	HR	A vision and mission is not taken serious by management and employees
EWS	HR	amount overtime, hours per month
EWS	HR	amount spent on workplace training (Rand million)
EWS	HR	average time taken to appoint staff from date of request to date post filled
EWS	HR	Bad Relationship with customers
EWS	HR	budget for trainings
EWS	HR	expenditures on consultants
EWS	HR	Failure to meet deadlines
EWS	HR	Failure to Prepare Timely, Accurate Financial Reports
EWS	HR	Inexperienced Management Team
EWS	HR	kinds of mistakes
EWS	HR	Lack of ability to carry out internal reforms
EWS	HR	Lack of willingness to carry out internal reforms
EWS	HR	level of budget spent on workplace skills plan
EWS	HR	level of budget spent on workplace training

EWS	HR	Management team does not have skills and capabilities
EWS	HR	number of consultants hired
EWS	HR	number of employees received training
EWS	HR	number of grievances loged by staff
EWS	HR	number of temporary staff employed
EWS	HR	number of trainings completed
EWS	HR	number of trainings not completed
EWS	HR	number of trainings provided to employees
EWS	HR	number of vacancies
EWS	HR	percentage of appointments that comply with Employment Equity targets
EWS	HR	Poor forecasting or estimation, in planns and budgets
EWS	HR	Senior management does not have required commitment
EWS	HR	Senior management does not have required experience
EWS	HR	Senior management does not have required qualification
EWS	HR	Some skill-sets are missing
EWS	HR	Some skill-sets are over provided
EWS	HR	Staff qualifications are not approprtiate to requirements
EWS	HR	staff turnover rate
EWS	Information	“Standard” financial reports that do not reflect the personality of the business
EWS	Information	Inappropriate or Inadequate Financial Information
EWS	Information	Insufficient or lack of timely and meaningful information on which decision making depends
EWS	Information	quality of asset register, update or complete
EWS	Information	quality of centralised information gathering and system, data-base
EWS	Information	quality of infrastructure audit, data reliability
EWS	infrastructure	ages of assets
EWS	infrastructure	ages of infrastructure
EWS	infrastructure	amount of capital expenditure
EWS	infrastructure	amount spent on building new infrastructure (Rand million)
EWS	infrastructure	amount spent on infrastructure maintenance (Rand million)
EWS	infrastructure	frequency of infrastructure audit performs
EWS	infrastructure	frequency of lifecycle capital planning
EWS	infrastructure	percentage of Cpex budget sepnt

EWS	infrastructure	quality of lifecycle capital planning
EWS	leadership	Chief Whip does not provide leadership in Caucus
EWS	leadership	Mayoral Committee does not provide effective leadership to municipality
EWS	leadership	Mayoral does not provide leadership to Mayoral Committee
EWS	leadership	number of instruction given in Caucus meetings
EWS	leadership	quality of instruction given in Caucus meetings, constructive or red-tape
EWS	leadership	quality of leadership provided by Chief Whip to the Caucus
EWS	leadership	quality of leadership provided by Mayoral Committee
EWS	Monitoring	frequency of checking asset register
EWS	Monitoring	frequency of updating asset register
EWS	Monitoring	number of delayed projects
EWS	Monitoring	number of mistakes in reports
EWS	Monitoring	quality of reports, internal consistency, page numbers, fonts and format
EWS	Monitoring	time duration that projects delay
EWS	others	Diversion of resources, usually people, pulled off the project to work on something else
EWS	outputs	audit opinion
EWS	outputs	number of meters read in a month
EWS	outputs	rate of billing (CoJ)
EWS	planning	Lack of clarity in directions and objectives
EWS	planning	Many Year-End Adjustments and/or Write-Offs
EWS	planning	Poor forecasting or estimation, in planns and budgets
EWS	planning	Unclear responsibilities
EWS	planning	variations between budgets and actual expenditures and revenues
EWS	process	Delayed decisions caused by Inappropriate or Inadequate Financial Information
EWS	process	Failure to meet deadlines
EWS	process	Monthly financials delivered after the 15th of the month.
EWS	process	No regular (daily or weekly) reporting of the three or four key indicators of the business
EWS	process	Overusing the Overtime
EWS	PP	A public complaints register and system does not established
EWS	PP	average number of people attended in community meetings or gathering
EWS	PP	Bad Relationship with communities
EWS	PP	number of grievances by public

EWS	PP	number of meeting with communities
EWS	PP	The municipality does not have a public communication strategy and systems in place
EWS	PP	The municipality does not have public participation plans and policies in place
EWS	SCM	interest involved between contractors and decision-makers
EWS	SCM	Involvement of REC or its members in tenders or appointment or micro-managing decisions
EWS	SCM	quality of management over consultants
EWS	SCM	quality of management over contracts
EWS	SCM	quality of monitoring over consultants' performance
EWS	SCM	quality of monitoring over contractors' performance
EWS	SCM	quality of SCM processes
EWS	SCM	quality of tender process, properly followed
EWS	SCM	quality of tender selection, according to procedures and regulation
EWS	SCM	quality of transitions with private sector, competitive, transparent?
EWS	system	Inadequate Management Information System (MIS)
EWS	system	No dynamic measurement of the results of operations and of cash flow — in-depth budget-to-actual comparisons and effective cash-flow management
EWS	system	No standard cost system
exogenous	exogenous	Backlog
exogenous	exogenous	Growing demands, because of heavy migration
exogenous	exogenous	Growing Migration
exogenous	exogenous	Hard to enforce to get paid
exogenous	exogenous	Inequality
exogenous	exogenous	LG is overly regulated
exogenous	exogenous	Poverty
exogenous	exogenous	Regulatory burden
exogenous	exogenous	Unemployment
exogenous	Problem	Billing Issue: lack of supervision and monitoring, low morale, alienation
exogenous	Problem	Cable theft
exogenous	Problem	Electricity theft
exogenous	Problem	Illegal connection
exogenous	Problem	illegal dumping
exogenous	Problem	Meter tampering by people

exogenous	Problem	Vandalism, high amount of it, breaking water main, tampering meter
exogenous	Problem	Water theft
inputs	equipment	old equipment, tools and vehicles
inputs	finance	Financial constraint
inputs	finance	High debt level
inputs	finance	insufficient funding for M&E
inputs	HR	Appointments of unqualified persons
inputs	HR	Brain-drain (exploiting the system by employees)
inputs	HR	capability challenges to have an effective M&E
inputs	HR	Councillors' lack of understanding about municipal works
inputs	HR	employees' low morale and work ethics, result of alienation
inputs	HR	inability to prioritise
inputs	HR	insufficient in-house skills, skills shortage
inputs	HR	Lack of apprentice system
inputs	HR	Lack of necessary skills to perform their tasks
inputs	HR	Lack of preparing response capability
inputs	HR	lack of skills and knowledge to monitor and manage consultants
inputs	HR	Mistrust of people, people perception
inputs	HR	Motive, to exploit the system to get more money
inputs	HR	No skills shortage
inputs	HR	Poor attitude of municipal staff
inputs	HR	Poor customer-relationship
inputs	HR	Poor workmanship
inputs	HR	silo-mentality
inputs	HR	Skills shortage
inputs	HR	skills shortage for M&E
inputs	HR	Use of consultants
inputs	HR	Vacancies, (might be a result of BEE and AA)
inputs	Information	Failure to use information in M&E reports effectively
Inputs	Information	Inappropriate or Inadequate Financial Information
inputs	Information	Lack of information
inputs	Information	Loss of institutional knowledge and memory

inputs	Information	Manual data collection, which is inaccurate
inputs	infrastructure	Aging infrastructure, old, located in remote locations
inputs	infrastructure	Infrastructure backlog
inputs	infrastructure	Poor infrastructure maintenance
inputs	system	Lack of central registry system
outputs	CS	Bad Relationship with customers
outputs	CS	Billing issue
outputs	CS	Contact numbers do not work
outputs	CS	Failure of municipalities to communicate communities about power outage or water outage
outputs	CS	It is difficult to know the right contact numbers
outputs	CS	No answers of contact numbers
outputs	CS	Poor customer relations
outputs	CS	slow and rude customer services
outputs	electricity	power outage
outputs	refuse removal	refuses were not picked up
outputs	revenue service	incorrect or inaccurate billings
outputs	sanitation	Sewage running in the streets, in poor areas
outputs	water	Delay to fix water leak
outputs	water	Delay to fix water pipe
outputs	water	Wastage because of water leak
outputs	water	water outage
outputs	water	Water running in the streets, in poor areas
planning	Governance	Corruption, wastes of resources
planning	Governance	Inefficiency of the boards of directors of entities
planning	Governance	lack of accountability
planning	Governance	Lack of oversight mechanism
planning	Governance	Misallocation, in terms of representative or committee members
planning	Governance	No-consequence for non-performers
planning	Governance	patronage system in staff appointment
planning	Governance	patronage system in tender process

planning	Governance	Political interference
planning	Governance	Political intervention in appointment
planning	Governance	Poor accountability
planning	Governance	Poor governance and administration
planning	Governance	Weak Governance
planning	leadership	Bad decision
planning	leadership	flushing their wealth while there is no delivery to community
planning	leadership	Improper motive not to serve communities but to enrich themselves while in offices
planning	leadership	Lack of experiences of politicians and their reliance on management
planning	leadership	Lack of focused leadership
planning	leadership	Losing moral ground
planning	leadership	Motive, not to serve but to enrich themselves
planning	leadership	Motive, to be in their interest, not to be hold them accountable
planning	leadership	patronage system
planning	leadership	Political will
planning	leadership	unqualified leaders, no skills shortage
planning	leadership	We don’t have common ground
planning	planning	Failure of municipality to use assets such as land productively
planning	planning	inability to prioritise
planning	planning	Ineffective resource-sharing system
planning	planning	Lack of proper planning
planning	planning	Poor investment in resources: skills and financial
planning	planning	Unclear power relation and roles of political and administrative sectors
planning	PP	Complicated DIP plans and budgets for communities to understand them (use of technical language)
planning	PP	Consultation is more necessary when resource is limited
planning	PP	Cooperation from public
planning	PP	Councillors are not engaging, communicating with communities
planning	PP	Disconnection (alienation) between local government and the community
planning	PP	Failure of municipalities to communicate and engage with communities
planning	PP	Inaccessible to residents
planning	PP	Lack of asset-based (community based) development
planning	PP	Lack of communication

planning	PP	Lack of dialogue
planning	PP	Lack of genuine public participation
planning	PP	lack of proper participation system in IDP process
planning	PP	Lack of ward-based plan
planning	PP	M&E that involves communities and bureaucratised
planning	PP	No briefing and reporting to communities about projects and programmes in their communities
planning	PP	No community meeting
planning	PP	No proactive engagement to the community
planning	PP	Not including community's feedback in IDP
planning	PP	Not involving public in performance review process
planning	PP	Not involving whole community in DIP meeting
planning	PP	People are not allow to talk and discuss in IDP meeting
planning	PP	People do not get invitations to attend IDP meeting
planning	PP	Planning (IDP), not consulting with communities
planning	PP	Poor relationship between councilors and community members
planning	PP	They don't recognise people needs
planning	PP	Unresponsiveness
planning	PP	Unresponsiveness of the City (communities submit their IDP but do not get replies)
planning	PP	Unresponsiveness to councillors about their communities' information, projects and programmes
planning	PP	Weak public participation mechanism, it is ritual or compliance
process	A&M	avoidable expenditures
process	A&M	Delayed decisions caused by Inappropriate or Inadequate Financial Information
process	A&M	Inadequate Management (Rightly or wrongly, management usually is blamed for business failure)
process	A&M	Lack of consequence for poor performance
process	A&M	Lack of maintenance, causing aging infrastructure
process	A&M	Lack of supervision, or internal control
process	A&M	Low revenue collection
process	A&M	Meter reading
process	A&M	No consequence for wrong doers
process	A&M	No proper M&E system
process	A&M	No template for IDP
process	A&M	Not properly repair and maintenance

process	A&M	Poor Administration Procedures causing inefficiency and errors
process	A&M	Poor Financial Management
process	A&M	Poor implementation
process	A&M	Poor insufficient revenue collection
process	A&M	Poor maintenance
process	A&M	Poor or weak administration
process	A&M	They are bullshit. No one really care
process	A&M	They cannot be fired
process	A&M	Weak Monitoring system
process	A&M	Weak Performance Management, Score-card
process	A&M	Workers, employees are not treated well
process	C&C	Fragmentation
process	C&C	Fragmentation: lack of integration between planning and management
process	C&C	Increasing tension with key stakeholders, whether it is poor credibility with the press, disenchantment with the unions, or disaffected pension trustees
process	C&C	Labour, union
process	C&C	Poor relationship between politicians and administrative or management sector
process	C&C	Uncoordinated management
process	Monitoring	Internal M&E system
process	Monitoring	Lack of community involvement in monitoring and also in the outcomes
process	Monitoring	Lack of proper monitoring
process	Monitoring	Lack of stakeholder involvement in M&E system
process	Monitoring	M&E just for compliance (Compliance check lists)
process	Monitoring	No proactive identification of problems within delivery
process	Monitoring	Self M&E
process	SCM	Delay in supply chain process
process	SCM	Delay in tender process
process	SCM	Loss of resources (money) to failed (undelivered) service providers
process	SCM	Materials do not arrive (for example, smart meters)
process	SCM	Unqualified service providers
process	supervision	Weak supervision and lack of monitoring

Appendix K: Factors, causes, problems and EWS from literature review

ACRONYM

A&M Administration and management
C&C: Coordination and communication
CS: Customer Service
DS: Demand-side
EWS: Early Warning signals
HR: Human Resources (or human capital)
PP: Public Participation
RS: Revenue Service
SCM: Supply Chain Management (Procurement)

Table K1 Summary of factors, causes, problems and EWS from literature review

Exogenous		**Supply-side factors**							**123**	**Demand-side**	
	12	**Planning**	**33**	**Inputs**	**48**	**Processes**	**37**	**Outputs**	5		6
		Leadership	6	HR	18	A&M	6	Customer service, CoJ	1		
		Governance	10	Finances	2	Supervision	4	Electricity	1		
		IDP	14	Infrastructure	3	Monitoring	3	Water & sanitation	1		
		PP	3	Equipment	7	SCM	3	Refuse removal	1		
				Information	11	C&C	21	Revenue service, CoJ	1		
				Systems	7						

Table K2 Factors, causes, problems and EWS from literature review

DS	DS	Entitlement of communities, expectations from the government to provide everything
DS	DS	High expectation
DS	DS	Illegal damping
DS	DS	non-payments of people who can afford to pay
DS	DS	people do not care about environment and neighbourhood
DS	DS	people lack awareness about their roles and responsibilities
EWS	A&M	Lack of review and monitoring of performance reporting processes and controls by internal audit units
EWS	C&C	A problematic political/administrative interface,
EWS	C&C	Argumentative sessions at meeting
EWS	C&C	Communication plan is not followed
EWS	C&C	Duplication of effort
EWS	C&C	No discussion of task status
EWS	C&C	poor intergovernmental coordination
EWS	C&C	Poor Political and administrative relationship
EWS	equipment	Lack of a back-up server
EWS	equipment	low cost material used by many contractors
EWS	equipment	No CCTV cameras in sub-stations
EWS	equipment	quantity of machines and tools available versus required
EWS	finance	Overran costs
EWS	finance	spending exceed budget
EWS	finance	Unspent budget
EWS	finance	volume of electricity bought
EWS	finance	volume of electricity sold
EWS	finance	volume of water bought
EWS	finance	volume of water sold
EWS	governance	No consequence for non-compliance
EWS	governance	numbers of meeting attendances
EWS	governance	numbers of meeting convenced
EWS	HR	Excessive reliance on consultants

EWS	HR	Hiring expertise (for example, services of consultants) from outside
EWS	HR	Low staff morale
EWS	HR	number of vacancies
EWS	HR	People are not willing to say things straight out
EWS	HR	rates of changes in plans and reports prompted by mistakes and errors
EWS	HR	rates of reworks
EWS	HR	turnover rate of personnel
EWS	HR	vacancy rate
EWS	information	Conflictive information
EWS	information	Different baseline data between departments
EWS	information	Different versions of similar data (examples, from reports)
EWS	information	Incorrect document revisions
EWS	information	Not-enough information available to stakeholders
EWS	information	poor quality of reports and business plans, for example, figures and numbers contradicted in the reports, without page numbers, and poor formets
EWS	information	Significant changes in scope, schedule, or budget
EWS	information	Vagueness in reports
EWS	infrastructure	numbers of infrastructure broken-down
EWS	infrastructure	numbers of pipe burst
EWS	monitoring	Lack of method to provide feedback on a regular basis
EWS	monitoring	Lack of system to provide feedback on a regular basis
EWS	output	numbers of billing complaints
EWS	output	numbers of meter-reading
EWS	output	numbers of power outages
EWS	output	numbers of unplanned power outages
EWS	output	numbers of unplanned water outages
EWS	output	numbers of water outages
EWS	planning	Changes in plans
EWS	planning	Imprecise project objectives
EWS	planning	Lack of a clearly defined long-term development strategy
EWS	planning	Lack of an effective project communications plan

EWS	planning	Lack of clear milestones for project
EWS	planning	lack of planning to meet the infrastructure and services backlogs
EWS	planning	Not all required interactions are included in the communication plan
EWS	planning	Plan deviations
EWS	planning	Plan with errors
EWS	planning	Poorly-drawn business or project plans
EWS	planning	Shifting goals and priorities
EWS	planning	Sloppily-drawn resource plan
EWS	planning	variations between budgets and actual revenues, or expenditures, etc
EWS	process	Changes and disturbances in workflow
EWS	process	Delays in billing
EWS	process	Increase in flow of paper-work
EWS	process	Late or even no-submission of reports
EWS	process	Late reports
EWS	process	Missed deadlines
EWS	process	Missed targets
EWS	process	numbers of meeting attendances
EWS	process	numbers of meetings
EWS	process	Numerous disturbances and breaks
EWS	process	Repetition of the same work
EWS	PP	Lack of effective communication with community members
EWS	PP	Low stakeholders involvement
EWS	PP	Poor stakeholder representation in meetings
EWS	PP	Weak public participation structures
EWS	SCM	Failure to timeously renew the meter-reading contract
EWS	SCM	poor performing contractors
EWS	supervision	General lack of a visible presence of managers at front-line of service facilities
exogenious	exogenious	family splitting, that increase the number of households
exogenious	exogenious	fast growing informa settlement
exogenious	exogenious	homelessness
exogenious	exogenious	Impact of SA Developmental Model

exogenious	exogenious	increasing number of immigration
exogenious	exogenious	Lack of revenue-raising powers
exogenious	exogenious	No or poor patrolling of hot spots
exogenious	exogenious	population growth
exogenious	exogenious	Poverty, Unemployment, Apartheid legacy
exogenious	exogenious	Weakness in policy and regulatory framework
exogenious	problem	Cable loss
exogenious	problem	Cable theft
inputs	equipment	Disconnection of electricity
inputs	equipment	ICT systems crash
inputs	equipment	Lack of a back-up server
inputs	equipment	low cost material used by many contractors
inputs	equipment	No CCTV cameras in sub-stations
inputs	equipment	System failure that affects metro's call centre lines, prepaid electricity systems, emails and customer care centre tellers
inputs	equipment	Uninspiring or un-enabling working environment
inputs	finance	Inadequate funds
inputs	finance	Wasteful expenditures
inputs	HR	Apathetic attitude of staff ("not my business, somebody else's")
inputs	HR	Confusion and a loss of enthusiasm and motivation
inputs	HR	fluid commitment levels from key participant
inputs	HR	Inability to attract and retain suitably qualified staff
inputs	HR	Inappropriate staffing
inputs	HR	Irregular, inappropriate appointments
inputs	HR	Lack of experience in managing the staff
inputs	HR	Lack of staff awareness of project importance to the organization
inputs	HR	Lack of understanding about business
inputs	HR	Low level of involvement and enthusiasm
inputs	HR	Low skill levels of staff and management
inputs	HR	No commitment to attend meetings regularly
inputs	HR	Poor recruitment processes
inputs	HR	poor understanding of legislation

inputs	HR	Poor workmanship
inputs	HR	Skills deficits,
inputs	HR	Staff do not understand their role and tasks
inputs	HR	Training does not cover all necessary skills
inputs	information	Failure to update the processes
inputs	information	Inaccurate cost estimates
inputs	information	Incomplete knowledge of process status
inputs	information	Incomplete knowledge of the project's critical issues
inputs	information	Loss of institutional memory (because of excessive use of consultants)
inputs	information	No central data repositories within departments
inputs	information	Poor record-keeping
inputs	information	Staff's unawareness of what data are available within the department
inputs	information	Undefined deliverables
inputs	information	Unhelpful performance information
inputs	information	Unreliable reported performance information
inputs	infrastructure	Insufficient spending on infrastructure
inputs	infrastructure	Lack of investment in infrastructure, such as roads or sewerage works,
inputs	infrastructure	Weak infrastructures
inputs	system	Lack of controls and accountability system
inputs	system	Lack of enforcement mechanism
inputs	system	Lack of proper PMSs to collate, store, document and report performance data;
inputs	system	Multiple supervisors or managers that staff have to report to
inputs	system	No effective forums or mechanism for staff to ask questions of management
inputs	system	Unable to install early warning systems for renewal of contracts (the meter-reading contract)
inputs	system	Weak billing and collection systems
output	CS	Lack of municipal response to community problems or concerns
output	electricity	power outage
output	refuse removal	dashbins are not collected, or late
output	revenue service	billing problems, inacurate billing
output	water and	water outage

	sanitation	
planning	governance	Dysfunctional caucuses
planning	governance	Fraud and corruption
planning	governance	Ineffective handling of / or no resolution of issues brought before meetings
planning	governance	lack of accountability,
planning	governance	Lack of consequences of Non-Compliance
planning	governance	no consequences for transgressions in supply chain monitoring (AG)
planning	governance	Non-compliance with regulations and rules
planning	governance	Political inference in appointment and dismissals
planning	governance	poor understanding of legislation
planning	governance	Weak governance
planning	leadership	Ineffective leadership
planning	leadership	Instabilities in administrative leadership,
planning	leadership	Lack of political will
planning	leadership	Lack of strong political support
planning	leadership	Lack of support from upper management
planning	leadership	Low commitment in business objectives and plans
planning	planning	Ambiguity in responsibilities and tasks
planning	planning	An excessive number of process gaps identified during design.
planning	planning	Failure to ensure action plans to address prior year findings
planning	planning	Failure to include the person responsible to address the finding in the action plan
planning	planning	False starts
planning	planning	Lack of a clearly defined long-term development strategy
planning	planning	Lack of an effective project communications plan
planning	planning	Lack of clear milestones for project
planning	planning	lack of planning to meet the infrastructure and services backlogs
planning	planning	Sloppily-drawn resource plan
planning	planning	The project direction is not aligned with the strategic business objectives
planning	planning	Unclear objectives, goals or plans
planning	planning	Unrealistic targets or promises
planning	planning	weak intergovernmental cooperation

planning	PP	Lack of effective communication with community members
planning	PP	Poor stakeholder representation in meetings
planning	PP	Weak public participation structures
process	A&M	Inappropriate use of resources
process	A&M	Lack of review and monitoring of performance reporting processes and controls by internal audit units
process	A&M	Uninvolved, disintegrated upper management
process	A&M	Weak administration
process	A&M	Weak contract management
process	A&M	Weak financial management,
process	C&C	A problematic political/administrative interface,
process	C&C	Argumentative sessions at meeting
process	C&C	Communication plan is not followed
process	C&C	Disjuncture among the municipality and municipal entities
process	C&C	Duplication of effort
process	C&C	Ineffective communication
process	C&C	ineffective functioning of the Cluster system
process	C&C	Ineffective intergovernmental relations
process	C&C	lack of coordination and communication between the Committee, municipalities, the provinces and CoGTA
process	C&C	Lack of detailed reviews, interaction and monitoring by the audit committees on quarterly performance reports and reporting processes of performance information;
process	C&C	Lack of discussion about project
process	C&C	No discussion of task status
process	C&C	Non-escalation of monitoring findings to Political Principals since some of these findings affect their areas of responsibility
process	C&C	Poor communication among management and employees
process	C&C	Poor coordination among departments
process	C&C	poor intergovernmental coordination
process	C&C	Poor Political and administrative relationship
process	C&C	Project objectives become blurred during the project
process	C&C	Tensions in intergovernmental responsibilities,
process	C&C	Uneasy about sharing data (governmental departments are forced to buy data that should be readily available from a sister department [Engela & Ajam, 2010: 25])

process	C&C	Unsatisfactory labour relations
process	monitoring	Lack of method to provide feedback on a regular basis
process	monitoring	Lack of system to provide feedback on a regular basis
process	monitoring	lack of monitoring of infrastructure projects
process	SCM	Contractors' failures to deliver
process	SCM	Failure to timeously renew the meter-reading contract
process	SCM	poor performing contractors
process	supervision	Lack of coverage for normal business operations
process	supervision	Not knowing the status of the project at a high level
process	supervision	Poor over-sight
process	supervision	Complaints and compliments systems are usually under-utilised

Appendix L: Factors, causes, problems and EWS from City Power's documents

ACRONYM

A&M Administration and management
C&C: Coordination and communication
CS: Customer Service
DS: Demand-side
EWS: Early Warning signals
HR: Human Resources (or human capital)
PP: Public Participation
RS: Revenue Service
SCM: Supply Chain Management (Procurement)

Table L1 Summary of factors, causes, problems and EWS from City Power's documents

Exogenous		**Supply-side factors**							**97**	**Demand-side**	
	7	**Planning**	**16**	**Inputs**	**24**	**Processes**	**25**	**Outputs**	32		4
		Leadership	0	HR	6	A&M	13	Customer service, CoJ	10		
		Governance	4	Finances	1	Supervision	0	Electricity	17		
		IDP	10	Infrastructure	5	Monitoring	6	Revenue service, CoJ	5		
		PP	2	Equipment	5	SCM	2				
				Information	4	C&C	4				
				Systems	3						

Table L2 Factors, causes, problems and EWS from City Power's documents

EWS	process	number of unread meters
exogenous	CoJ	Lack of reconciliations and resolving reconciling items in the billing environment
exogenous	problem	Bypassed meters
exogenous	problem	'Ghost' prepaid vending
exogenous	problem	Illegal connections
exogenous	problem	theft and vandalism on the network infrastructure, that are persistent and continuous
exogenous	problem	Theft of key network components due to criminal activities
exogenous	supply	inefficient availability of power supply
impact	impact	High impact on operations of SMME's
impact	impact	inability to deliver surplus to subsidise non generating profitable services of the CoJ
input	equipment	faulty meters
input	equipment	poor controls which do not detect or prevent recoverable consumption usage resulting financial instability
input	equipment	Poor security visibility
input	equipment	system updates that are not updated on time on SAP (System Application and Production in Data Processing)
input	equipment	Technology not adapted to change in environment
input	finance	Inefficient Capital potentially deployment
input	HR	inability to fill vacancies
input	HR	Insufficient training of staff on policy changes
input	HR	Lack of qualified staff
input	HR	No training on existing disaster recovery plan
input	HR	poor workmanship
input	HR	staff's substance abuse problem
input	information	Inability to have asset register on SAP
input	information	material misstatement such as achieving high instances of meter reads
input	information	material misstatements, finding on the annual performance report
input	information	Poor network data in existing GIS and other BI platforms
input	information	Un-located addresses for manual read meters;

input	infrastructure	High instance of unplanned maintenance
input	infrastructure	Inadequate, Incomplete maintenance plans and controls on plant maintenance SAP workflow to ensure task completion
input	infrastructure	Poor network
input	infrastructure	The risk of further network deterioration due to an ineffective maintenance plan and execution resulting in financial loss and poor capital investment planning
input	system	Lack of customer segmentation and profiling
input	system	Lack of early warning detection systems
input	system	Lack of systems in place to ensure that predetermined objectives are implemented;
output	CS	Customer perception of CP not being capable of delivering services
output	CS	Customer uncertainty in existing processes
output	CS	Customer unsure of whether to contact CoJ or CP call centres
output	CS	Inaccurate billing of customers
output	CS	inadequate brand management
output	CS	Inadequate marketing of CP's positive impact on supporting basic community needs
output	CS	Ineffective end to end resolution of customer queries
output	CS	Negative messaging by CP, e.g. Faulty meter, inaccessible billboards, radio advertisements etc.
output	CS	Repeated customer calls
output	CS	Unclear CP Brand
output	finance	declining revenues
output	finance	financial losses because of litigation
output	finance	power losses (non-technical)
output	finance	power losses (technical)
output	finance	Repeated costs of purchasing replacement equipment
output	operation	failure to continue operations and services
output	operation	failure to implement National Key Points Act across the organisation
output	operation	Inability to implement existing policies
output	operation	loss of operating license
output	reputation	Failure to get 'clean' audit
output	reputation	Loss of Stakeholder confidence
output	reputation	Negative market perception;
output	reputation	Negative stakeholder reputation

output	reputation	poor stakeholder and investor confidence
output	reputation	poor stakeholder perceptions
output	reputation	Reputational damage
output	risk	Increased fatalities
output	risk	increased litigation
output	risk	Increased threat of fatalities
output	SD	Increased outages
output	SD	Increased unplanned maintenance
output	SD	interrupted distribution of electricity,
planning	governance	Failure to address repeat audit findings such as change meters, deleted reads which result in excessive estimates;
planning	governance	Inadequate processes to resolve internal audit findings
planning	governance	non-compliance to legislations, regulations and governance
planning	governance	Weak implementation of Auditor General findings
planning	planning	delayed capital deployment
planning	planning	inability of the capital programme to respond to the future business model
planning	planning	ineffective response plan
planning	planning	Ineffective targeting of capital programme;
planning	planning	No alternative cost effective alternative
planning	planning	No portfolio management to deliver strategic outcomes
planning	planning	Outdated existing disaster recovery plan
planning	planning	strategic uncertainty
planning	planning	Unaligned short and medium term objectives to long term asset management programme
planning	planning	Weakness in long term capital planning, because CoJ budgeting process does not allow for long term capital planning
planning	PP	inadequate public relations
planning	PP	weak stakeholder confidence
process	A&M	Corruption and fraud on the side of utility or distributer's employees
process	A&M	delayed capital deployment
process	A&M	ineffective implementation of the integrated security management strategy including the National Key Point requirements
process	A&M	Inefficiency in staff utilisation
process	A&M	Key sub-stations that not declared national key points;
process	A&M	Lack of inspection regime

process	A&M	meter unread
process	A&M	Poor data capturing of meter readings
process	A&M	Poor maintenance of customer data
process	A&M	Poor management of meter installations and maintenance
process	A&M	Staff utilisation is not optimal
process	A&M	weak crisis management
process	A&M	weak implementation
process	C&C	inadequate proactive communications,
process	C&C	Inadequate systems between CP and COJ to manage customer queries
process	C&C	Ineffective communications strategy
process	C&C	Insufficient internal communications and
process	monitoring	Inadequate continuous monitoring of controls
process	monitoring	Inadequate control environment
process	monitoring	Ineffective monitoring of SAP workflow system to enable the business deliver customer services.
process	monitoring	Ineffective scanning processes to change in legislative environment which results in policies becoming outdated
process	monitoring	Lack of performance monitoring to identify and respond to material misstatement such as achieving high instances of meter reads;
process	monitoring	poor examination (vetting) of critical employee positions within the organisation
process	SCM	Fruitless and wasteful expenditure highlighted in the SCM processes
process	SCM	supplier dependency,

Appendix M: Factors, causes, problems and EWS from Johannesburg Water's documents

ACRONYM

A&M Administration and management
C&C: Coordination and communication
CS: Customer Service
DS: Demand-side
EWS: Early Warning signals
HR: Human Resources (or human capital)
PP: Public Participation
RS: Revenue Service
SCM: Supply Chain Management (Procurement)

Table M1 Summary of factors, causes, problems and EWS from Johannesburg Water's documents

Exogenous	**8**	**Supply-side factors**							**27**	**Demand-side**	2
		Planning	**2**	**Inputs**	**15**	**Processes**	**4**	**Outputs**	6		
		Leadership	0	HR	5	A&M	3	Customer service, CoJ	1		
		Governance	1	Finances	2	Supervision	0	Water & sanitation	5		
		IDP	1	Infrastructure	5	Monitoring	0				
		PP	0	Equipment	3	SCM	0				
				Information	0	C&C	1				
				Systems	0						

Table M2 Factors, causes, problems and EWS from Johannesburg Water's documents

DS	DS	inaccessible meters
DS	DS	Poor payment levels of water and sanitation services
EWS	DS	number of meters that are inaccessible
EWS	equipment	number of faulty meters
EWS	equipment	number of meters with technical faults
EWS	equipment	number of smart meter installed
EWS	finance	audit opinion
EWS	finance	cash balance
EWS	finance	debt, total
EWS	finance	level of revenue collection
EWS	finance	payment level
EWS	finance	profit before bad debt
EWS	finance	profit, net
EWS	finance	revenue service fee
EWS	HR	number of employee over 50
EWS	HR	number of employee trained
EWS	HR	number of professionally registered engineers and technologists
EWS	HR	number of vacancies
EWS	HR	rate of employee over 50
EWS	HR	vacancy rate
EWS	infrastructure	% capital budget spent
EWS	infrastructure	% expenditure on MIG budget
EWS	infrastructure	capital budget spent, amount
EWS	infrastructure	expenditure of MIG allocation
EWS	infrastructure	length of aging pipelines
EWS	output	amount of spills & overflows at wastewater treatment works per year
EWS	output	drinking water quality, % of compliance
EWS	output	final effluent compliance
EWS	output	level of UFW, commercial
EWS	output	level of UFW, physical

EWS	output	number of cleaning of mainline sewer blockages within 24 hours
EWS	output	number of households access to sanitation
EWS	output	number of households access to water
EWS	output	number of restoration of mainline water bursts within 48 hours
EWS	output	number of sewer blockages cleared within 24 hours of notification
EWS	output	number of sewer blockages experienced per 100km
EWS	output	number of water pipe burst experienced per 100 km of water networks
EWS	output	overall performance score
EWS	output	rate of cleaning of mainline sewer blockages within 24 hours
EWS	output	rate of restoration of mainline water bursts within 48 hours
EWS	output	rate of sewer blockages cleared within 24 hours of notification
EWS	output	response times of sewer blockage, within 24 hours of notification
EWS	output	response times of water bursts, within 48 hours of notification
EWS	output	water quality standard (SANS 241) compliance level
EWS	process	billing level %
EWS	process	electrical consumption at Wastewater Treatment Works
EWS	process	number of unread meters
EWS	process	revenue collection, amount, 2013
EWS	output	days taken to install water connection from an initial request
EWS	output	number of water connections done in a month
EWS	output	number of water disconnections done in a month
exogenous	CoJ	Under billing
exogenous	CoJ	weak revenue collection (by CoJ's the Revenue and Customer Relations Management department)
exogenous	DS	rapid urbanisation
exogenous	finance	escalating bulk services costs
exogenous	finance	Rising electricity prices
exogenous	HR	jobless rate, 24.7% (in the 3rd Q of 2013)
exogenous	HR	number of people with work, 4.66million (in the 3rd Q of 2013)
exogenous	input	Deteriorating river water quality
impact	impact	inability to deliver surplus to subsidise non generating profitable services of the CoJ
Input	equipment	aging and obsolete equipment
input	equipment	faulty meters

Input	equipment	meter errors
Input	finance	Capital budget shortfall
Input	finance	debt, total, 2013
Input	HR	Aging workforce
Input	HR	high vacancy rate
Input	HR	low productivity of staff
Input	HR	strikes, increased in size and in duration with no clear indication of abating
Input	HR	tense relationship between employers and employees
Input	infrastructure	Ageing network infrastructure
Input	infrastructure	aging water infrastructure, such as water pipes
Input	infrastructure	infrastructure backlog, insufficient infrastructure
Input	infrastructure	insufficient infrastructure
Input	infrastructure	slow renewal rate of water infrastructure
output	CS	Dissatisfied customers
output	finance	level of UFW, commercial
output	finance	level of UFW, physical
output	operation	Failure to reduce Non-Revenue Water to acceptable levels
output	operation	number of meters read
output	reputation	Weak branding
planning	governance	Fraud and Corruption
planning	planning	Inadequate integrated planning
process	A&M	Fraud and Corruption
process	A&M	meter estimation
process	A&M	meter unread
process	C&C	Inadequate Stakeholder Management

Appendix N: Factors, causes, problems and EWS from Pikitup's documents

ACRONYM

A&M Administration and management
C&C: Coordination and communication
CS: Customer Service
DS: Demand-side
EWS: Early Warning signals
HR: Human Resources (or human capital)
PP: Public Participation
RS: Revenue Service
SCM: Supply Chain Management (Procurement)
SD: Service delivery

Table N1 Summary of factors, causes, problems and EWS from Pikitup's documents

Exogenous	**8**	**Supply-side factors**							**64**	**Demand-side**	12
		Planning	**2**	**Inputs**	**21**	**Processes**	**29**	**Outputs**	12		
		Leadership	0	HR	6	A&M	14	Customer service, CoJ	4		
		Governance	1	Finances	1	Supervision	3	Refuse removal	8		
		IDP	1	Infrastructure	4	Monitoring	7				
		PP	0	Equipment	7	SCM	2				
				Information	2	C&C	3				
				Systems	1						

Table N2 Factors, causes, problems and EWS from Pikitup's documents

DS	DS	Community disputes through the Environmental Impact Assessment processes
DS	DS	Low participation rate in Pikitup programmes, such as Separation at Source (currently at 21%, although the target is 70%)
DS	DS	Many respondents knew about recycling and understood its benefits, but financial expectations are unrealistic (Very High).
DS	DS	Many community members do not know what to do with garden waste.
DS	DS	people do not care about environment and neighbourhood
DS	DS	Poor waste handling behaviours
DS	DS	Public's lack of understanding. There was a reasonable understanding that solid waste has a negative health impact but the mechanisms of disease transfer are not understood well.
EWS	equipment	frequency of vehicles broken down
EWS	equipment	High cost for repair and maintenance
EWS	equipment	number of incidents of illegal damping, commercial
EWS	equipment	number of incidents of illegal damping, public
EWS	equipment	number of vehicles available
EWS	equipment	number of vehicles broken down
EWS	finance	audit opinion
EWS	finance	cash balance
EWS	finance	debt, total
EWS	finance	expenditures, amount
EWS	finance	profit before bad debt
EWS	finance	profit or loss
EWS	finance	profit, net
EWS	finance	revenue service fee
EWS	finance	revenue, amount
EWS	finance	surplus or deficit
EWS	HR	number of employee over 50
EWS	HR	number of employee trained
EWS	HR	number of professionally registered engineers and technologists
EWS	HR	number of training provided to employees

EWS	HR	number of vacancies
EWS	HR	rate of employee over 50
EWS	HR	vacancy rate
EWS	output	number of accidents of spillages on streets
EWS	output	number of days that collect refuse late, (Some trucks often collect late at night when residents are asleep).
EWS	output	number of days that fail to collect refuse
EWS	PP	Frequency of stakeholder meetings (engagements)
EWS	PP	Number of attendance at stakeholder meetings (or engagements)
Exogenous	CoJ	Delay authorization process from CoJ (The total fleet complement is currently 418 vehicles; authority to refurbish ten compactors has not been received from the City of Johannesburg so this process is still on hold
Exogenous	CoJ	lack of information from CoJ (for the required provisions on the domestic revenue)
Exogenous	CoJ	System glitch during the migration process from venus to SAP
Exogenous	exogenous	high level dumping tonnages
Exogenous	exogenous	Informal settlement
Exogenous	infrastructure	Long turnaround times to acquire land for construction.
Exogenous	problem	Illegal dumping (Most respondents knew that dumping or burning waste was illegal but just insisted due to strikes or non-arrival of refuse trucks.)
Exogenous	SCM	short supply of specialised equipment in the market
input	equipment	Ageing fleet
input	equipment	High incidence of breakdown / repair requirements of fleet
input	equipment	Inadequate IT Facilities and Environmental Controls
input	equipment	Inadequate or lack of tools of trade
input	equipment	Insufficient properly equipped (specialized) fleet available
input	equipment	Insufficient vehicle (fleet)
input	equipment	Older fleet not geared for RFID devices
input	finance	Budgetary constraints,
input	HR	Insufficient staff
input	HR	Lack of key IT skills and management layer within the department
input	HR	Shortages of skilled human resource, resulting in poor and inefficient delivery.
input	HR	Staff’s frustrating due to health and safety initiativesm and inadequate or lack of tools of trade)
input	HR	staff’s substance abuse problem
input	HR	strike

input	information	Information not submitted for audit (Employee Cost)
input	information	Loss of customer data, accounts of a quarter of about 752 customers were lost
input	infrastructure	Ageing infrastructure
input	infrastructure	Inadequate infrastructures
input	infrastructure	Insufficient landfill sites
input	infrastructure	lack of facilities and supports for reclaimers (Pikitup estimated that there are at least 8,000 reclaimers/waste pickers operating within the City of Johannesburg)
input	system	insufficient tool and machine replacement programme
output	CS	Dissatisfied customers
output	CS	high amount of queries (relating to requests for replacement of stolen, damaged, additional, broken of 240L wheelie bins and new service)
output	CS	increasing calls
output	CS	low query resolution rate
output	finance	Deficit R27 m at the end of September 2013
output	finance	high repair and maintenance costs
output	finance	Revenue loss, as accounts of a quarter of about 752 customers were lost
output	HR	labour unrest, strike
output	reputation	Weak branding
output	SD	failure to collect refuse
output	SD	Late collection (Some trucks often collect late at night when residents are asleep).
output	SD	Most of the spillages on streets are alleged to be caused by Pikitup staff.
planning	governance	Non-compliance with SCM regulations
planning	planning	unhealthy reliance on long term or ad-hoc rentals that is inefficient and prohibitively expensive
process	A&M	Absorbed employees not included in the costing report/payroll
process	A&M	Absorbed employees with different salary scales than those of CCMA settlement agreement.
process	A&M	Absorption: Foreign employees absorbed without work permit
process	A&M	Awards made to persons in the service of the state
process	A&M	Awards not advertised on the website for at least seven days
process	A&M	Employees of Pikitup own companies and have not declared their interest
process	A&M	Inadequate IT Security Management
process	A&M	Insufficient internal control systems
process	A&M	Legal non-compliances, threatening organizational integrity and responsible authority

process	A&M	Performance contracts were not signed on time
process	A&M	Poor management of fleet
process	A&M	Suppliers in the database owned by employee working for other state department (no contract awarded)
process	A&M	Targets per business plan differ with targets reported in the annual performance report
process	A&M	unhealthy reliance on long term or ad-hoc rentals that is inefficient and prohibitively expensive
process	C&C	interference by ward councilors in Pikitup programmes, for example at the roll out of S@S (separate at source)
process	C&C	labour unrest, strike
process	C&C	tensed relationship with labour union
process	monitoring	Baseline per business plan differs with baseline reported in the annual performance report.
process	monitoring	No direct link between the budgets, objectives and targets
process	monitoring	Performance target that do not meet the characteristics for defining a good performance indicator
process	monitoring	Reported achievements not relevant and targets not achievable
process	monitoring	Reported outcomes not accurate
process	monitoring	Targets not measurable
process	monitoring	The performance baseline that did not meet the SMART criteria
process	SCM	Extended project timelines due to adherence to procurement process (90 days)
process	SCM	Poor contracts management, resulting in increased challenging of contracts/ awards.
process	supervision	Non prevention of fruitless and wasteful expenditure
process	supervision	poor historical maintenance
process	supervision	spillages on streets

Appendix O: Early warning signals

revealed from interviews, document study and literature review

ACRONYM

A&M Administration and management
C&C: Coordination and communication
CS: Customer Service
DS: Demand-side
EWS: Early Warning signals
HR: Human Resources (or human capital)
PP: Public Participation
RS: Revenue Service
SCM: Supply Chain Management (Procurement)

Table O1 Summary of EWSs revealed from interviews, document study and literature review

Exogenous	3	**Supply-side factors**							**369**	**Demand-side**	1
		Planning	**66**	**Inputs**	**140**	**Processes**	**76**	**Outputs**	87		
		Leadership	7	HR	48	A&M	13	CoJ and MoEs	2		
		Governance	29	Finances	40	Supervision	1	Customer service, CoJ	40		
		IDP	17	Infrastructure	16	Monitoring	7	Electricity	16		
		PP	13	Equipment	18	SCM	12	Water & sanitation	24		
				Information	15	C&C	18	Refuse removal	3		
				Systems	3	Operation	3	Revenue service, CoJ	2		
						other	**22**				

Table O2 EWSs revealed from interviews, document study and literature review

1	EWS	1	administration	A vision and mission is clearly articulated	I
2	EWS	2	administration	A vision and mission is established	I
3	EWS	3	administration	Attitude of "But we've always managed like this"	I
4	EWS	4	administration	Decisions repeatedly postponed	I
5	EWS	5	administration	Lack of review and monitoring of performance reporting processes and controls by internal audit units	L
6	EWS	6	administration	Management performance contracts are applied properly	I
7	EWS	7	administration	Management performance contracts are not established	I
8	EWS	8	administration	Number of Un-renewed contracts	I
9	EWS	9	administration	Normal basis for staff promotions are not clear	I
10	EWS	10	administration	Normal basis for staff promotions are not followed	I
11	EWS	11	administration	number of disciplinary cases	I
12	EWS	12	administration	Performance contracts are not effectively managed	I
13	EWS	13	administration	Running behind the targets	I
14	EWS	1	C&C	A problematic political/administrative interface,	L
15	EWS	2	C&C	Argumentative sessions at meeting	L
16	EWS	3	C&C	Communication plan is not followed	L
17	EWS	4	C&C	Councillors do not report back to BECs regularly	I
18	EWS	5	C&C	Duplication of effort	L
19	EWS	6	C&C	Increasing tension with key stakeholders, whether it is poor credibility with the press, disenchantment with the unions, or disaffected pension trustees	I
20	EWS	7	C&C	Lack of Communication	I
21	EWS	8	C&C	No discussion of task status	L
22	EWS	9	C&C	number of meeting held among leaderships and management	I
23	EWS	10	C&C	number of meeting held among management and employees	I
24	EWS	11	C&C	poor intergovernmental coordination	L
25	EWS	12	C&C	Poor Political and administrative relationship	L
26	EWS	13	C&C	Public participation policies and plans are not communicated to the committees	I
27	EWS	14	C&C	REC does not communicate political decisions to Caucus meetings	I
28	EWS	15	C&C	REC does not communicate political decisions to deployees	I
29	EWS	16	C&C	REC poorly communicate political decisions to deployees	I

30	EWS	17	C&C	REC poorly communicates political decisions to Caucus meetings	I
31	EWS	18	C&C	role definitions are not communicated	I
32	EWS	1	CS	% calls answered within 20 seconds, in a day	I
33	EWS	2	CS	% calls answered within 30 seconds, in a day	I
34	EWS	3	CS	% calls dropped (does not include calls dropped within 5 seconds) in a day	I
35	EWS	4	CS	% connections made in less than 14 days in a month	I
36	EWS	5	CS	% meters billed on actual readings in a month	I
37	EWS	6	CS	% meters read in a month	I
38	EWS	7	CS	average time taken to appoint staff from date of request to date post filled	I
39	EWS	8	CS	Bad Relationship with customers	I
40	EWS	9	CS	issues of complaints	I
41	EWS	10	CS	level of customer satisfaction with affordability of tariffs (score out of 10)	I
42	EWS	11	CS	level of customer satisfaction with basic services (score out of 10)	I
43	EWS	12	CS	level of UFW (Unaccounted for Water)	I
44	EWS	13	CS	number of calls answered within 20 seconds in a day	I
45	EWS	14	CS	number of calls answered within 30 seconds in a day	I
46	EWS	15	CS	number of calls dropped (does not include calls dropped within 5 seconds) in a day	I
47	EWS	16	CS	number of cases (issues) of complaints	I, CP, P, JW
48	EWS	17	CS	number of complaints	I, CP, P, JW
49	EWS	18	CS	number of connection made in less than 14 days in a month	I
50	EWS	19	CS	number of connection with no advance on the meter for 90 days	I
51	EWS	20	CS	number of customer complaints in a day (or a week)	I
52	EWS	21	CS	number of disciplinary cases initiated	I
53	EWS	22	CS	number of grievances lodged by customer	I
54	EWS	23	CS	number of limiter connections with consumption > 200 liters per day	I
55	EWS	24	CS	number of queries resolved at first contact	I
56	EWS	25	CS	number of schools visited in a month	I
57	EWS	26	CS	number of street theatre events held in a month	I
58	EWS	27	CS	number of trainings provided in a month	I
59	EWS	28	CS	percentage of appointments that comply with Employment Equity targets	I

60	EWS	29	CS	percentage of complaints responsed or resolved	I
61	EWS	30	CS	rate calls answered within 20 seconds, in a day	I
62	EWS	31	CS	rate calls answered within 30 seconds, in a day	I
63	EWS	32	CS	rate calls dropped (does not include calls dropped within 5 seconds) in a day	I
64	EWS	33	CS	rate connections made in less than 14 days in a month	I
65	EWS	34	CS	rate meteres billed on actual readings in a month	I
66	EWS	35	CS	rate meters read in a month	I
67	EWS	36	CS	rate of complaints resolved	I
68	EWS	37	CS	rate of queries resolved at first contact	I
69	EWS	38	CS	revenue improvement per customer service agent	I
70	EWS	39	CS	time duration required to resolve or response to complaints	I
71	EWS	40	CS	total calls answered in a day	I
72	EWS	1	demand-side	number of meters that are inaccessible	CP, JW, L
73	EWS	1	equipment	frequency of equipments broken down	I
74	EWS	2	equipment	frequency of vehicles broken down	I, P
75	EWS	3	equipment	High cost for repair and maintenance	P
76	EWS	4	equipment	Lack of a back-up server	L
77	EWS	5	equipment	low cost material used by many contractors	L
78	EWS	6	equipment	No CCTV cameras in sub-stations	L
79	EWS	7	equipment	number of equipment breakdown	CP
80	EWS	8	equipment	number of equipment required to be replaced	CP
81	EWS	9	equipment	number of faulty meters	CP, JW
82	EWS	10	equipment	number of incidents of illegal damping, commercial	P
83	EWS	11	equipment	number of incidents of illegal damping, public	P
84	EWS	12	equipment	number of meters with technical faults	JW
85	EWS	13	equipment	number of smart meter installed	JW
86	EWS	14	equipment	number of vehicles available	P
87	EWS	15	equipment	number of vehicles broken down	I, P
88	EWS	16	equipment	numbers of equipments broken down	I
89	EWS	17	equipment	quantity of machines and tools available versus required	L
90	EWS	18	equipment	time of vechiles broken down	I

91	EWS	1	finance	age of debt	I
92	EWS	2	finance	amount of budget, enough or not	I
93	EWS	3	finance	amount of cash flow	I
94	EWS	4	finance	amount of costs and expense	CP
95	EWS	5	finance	amount of debt	I
96	EWS	6	finance	amount of profit or loss	I
97	EWS	7	finance	amount of revenue	I, CP, P, JW
98	EWS	8	finance	amount of surplus or deficits	I
99	EWS	9	finance	amount of unauthorised expenditure	I
100	EWS	10	finance	amount of wasteful expenditure	I
101	EWS	11	finance	amount spent on overtime, per month (Rand thousand)	I
102	EWS	12	finance	audit opinion	JW, P
103	EWS	13	finance	bad debt level	I
104	EWS	14	finance	Bad debt losses	I
105	EWS	15	finance	cash balance	I, CP, JW, P
106	EWS	16	finance	cash flow level	I
107	EWS	17	finance	costs of purchasing replacing equipment	CP
108	EWS	18	finance	debt, total	JW. P
109	EWS	19	finance	Declining Profits	I
110	EWS	20	finance	expenditures, amount	P
111	EWS	21	finance	Going over budget	I
112	EWS	22	finance	Large unpaid bills	I
113	EWS	23	finance	level of Power losses	I
114	EWS	24	finance	level of profit or loss	I
115	EWS	25	finance	level of revenue collection	JW
116	EWS	26	finance	level of UFW (Unaccounted for Water)	I
117	EWS	27	finance	non-payment level	I
118	EWS	28	finance	Overran costs	L
119	EWS	29	finance	payment level	JW
120	EWS	30	finance	profit before bad debt	CP, JW,

					P
121	EWS	31	finance	profit or loss	CP, JW, P
122	EWS	32	finance	profit, net	CP, JW, P
123	EWS	33	finance	revenue level	I
124	EWS	34	finance	spending exceed budget	I, L
125	EWS	35	finance	surplus or deficit	P
126	EWS	36	finance	Unspent budget	L
127	EWS	37	finance	volume of electricity bought	L
128	EWS	38	finance	volume of electricity sold	L
129	EWS	39	finance	volume of water bought	L
130	EWS	40	finance	volume of water sold	L
131	EWS	1	Governance	Accountability of Mayoral Committee to Council is not managed properly	I
132	EWS	2	Governance	are there debates in meetings	I
133	EWS	3	Governance	Caucus does not meet, or hardly meets	I
134	EWS	4	Governance	Caucus does not provide direction to party deployees on matters before Council	I
135	EWS	5	Governance	committee members do not clearly understand what is required of them in the committees	I
136	EWS	6	Governance	councillors do not attend council meetings	I
137	EWS	7	Governance	frequency of Caucus meetings	I
138	EWS	8	Governance	frequency of Mayoral Committee meetings	I
139	EWS	9	Governance	frequency of Troika meeting	I
140	EWS	10	Governance	key functionaries do not attend Caucus meetings	I
141	EWS	11	Governance	lack of effective coordination of issues between key functionaries	I
142	EWS	12	Governance	municipality does not hold scheduled council meetings regularly	I
143	EWS	13	Governance	No consequence for non-compliance	L
144	EWS	14	Governance	number of councillors attend council meetings	I
145	EWS	15	Governance	number of Mayoral Committee meetings	I
146	EWS	16	Governance	numbers of meeting attendances	L
147	EWS	17	Governance	numbers of meeting convened	L
148	EWS	18	Governance	poor or weak relationship between key functionaries	I
149	EWS	19	Governance	Portfolio Committees has not been established	I

150	EWS	20	Governance	rate of councillor attendance at council meetings	I
151	EWS	21	Governance	role definitions are not clearly	I
152	EWS	22	Governance	Speaker does not manage the affairs of Council effectively	I
153	EWS	23	Governance	Speaker' office is not managing the outreach programme for Council	I
154	EWS	24	Governance	The Committee Chairs do not effective manage the business of the committees	I
155	EWS	25	Governance	The Council has not adopted a council procedural bylaw for council meetings	I
156	EWS	26	Governance	The municipality has not established ward committees	I
157	EWS	27	Governance	Troika does not meet, or hardly meets	I
158	EWS	28	Governance	Ward committees are not adequately capacitated in terms of their roles	I
159	EWS	29	Governance	Ward committees are not competent in terms of their roles	I
160	EWS	1	HR	A vision and mission is not taken serious by management and employees	I
161	EWS	2	HR	amount overtime, hours per month	I
162	EWS	3	HR	amount spent on workplace training (Rand million)	I
163	EWS	4	HR	average time taken to appoint staff from date of request to date post filled	I
164	EWS	5	HR	Bad Relationship with customers	I
165	EWS	6	HR	budget for trainings	I
166	EWS	7	HR	Excessive reliance on consultants	L
167	EWS	8	HR	expenditures on consultants	I
168	EWS	9	HR	Failure to meet deadlines	I
169	EWS	10	HR	Failure to Prepare Timely, Accurate Financial Reports	I
170	EWS	11	HR	High rates of changes in plans and reports prompted by mistakes and errors	L
171	EWS	12	HR	High rates of rework	L
172	EWS	13	HR	High turnover rate of personnel	L
173	EWS	14	HR	High vacancy rate	L
174	EWS	15	HR	Hiring expertise (for example, services of consultants) from outside	L
175	EWS	16	HR	Inexperienced Management Team	I
176	EWS	17	HR	kinds of mistakes	I
177	EWS	18	HR	Lack of ability to carry out internal reforms	I
178	EWS	19	HR	Lack of willingness to carry out internal reforms	I
179	EWS	20	HR	level of budget spent on workplace skills plan	I
180	EWS	21	HR	level of budget spent on workplace training	I
181	EWS	22	HR	level of employees over 50	CP

182	EWS	23	HR	Low staff morale	L
183	EWS	24	HR	Management team does not have skills and capabilities	I
184	EWS	25	HR	number of consultants hired	I
185	EWS	26	HR	number of employee over 50	CP, JW, P
186	EWS	27	HR	number of employee trained	CP, JW, P
187	EWS	28	HR	number of employees received training	I
188	EWS	29	HR	number of grievances lodged by staff	I
189	EWS	30	HR	number of professionally registered engineers and technologists	JW, P
190	EWS	31	HR	number of temporary staff employed	I
191	EWS	32	HR	number of training provided to employees	P
192	EWS	33	HR	number of trainings completed	I
193	EWS	34	HR	number of trainings not completed	I
194	EWS	35	HR	number of trainings provided to employees	I
195	EWS	36	HR	number of vacancies	I, L, CP, JW, P
196	EWS	37	HR	People are not willing to say things straight out	L
197	EWS	38	HR	percentage of appointments that comply with Employment Equity targets	I
198	EWS	39	HR	Poor forecasting or estimation, in plans and budgets	I
199	EWS	40	HR	rate of employee over 50	CP, JW, P
200	EWS	41	HR	Senior management does not have required commitment	I
201	EWS	42	HR	Senior management does not have required experience	I
202	EWS	43	HR	Senior management does not have required qualification	I
203	EWS	44	HR	Some skill-sets are missing	I
204	EWS	45	HR	Some skill-sets are over provided	I
205	EWS	46	HR	Staff qualifications are not appropriate to requirements	I
206	EWS	47	HR	staff turnover rate	I
207	EWS	48	HR	vacancy rate	I, L, CP, JW, P
208	EWS	1	Information	“Standard” financial reports that do not reflect the personality of the business	I
209	EWS	2	information	Conflictive information	L

210	EWS	3	information	Different baseline data between departments	L
211	EWS	4	information	Different versions of similar data (examples, from reports)	L
212	EWS	5	Information	Inappropriate or Inadequate Financial Information	I
213	EWS	6	information	Incorrect document revisions	L
214	EWS	7	Information	Insufficient or lack of timely and meaningful information on which decision making depends	I
215	EWS	8	information	Not-enough information available to stakeholders	L
216	EWS	9	information	poor quality of reports and business plans, for example, figures and numbers contradicted in the reports, without page numbers, and poor formats	L
217	EWS	10	Information	quality of asset register, update or complete	I
218	EWS	11	Information	quality of centralised information gathering and system, data-base	I
219	EWS	12	Information	quality of infrastructure audit, data reliability	I
220	EWS	13	information	quality of reports and business plan, sometime there is no page numbers, figures are different, no acronyms	CP
221	EWS	14	information	Significant changes in scope, schedule, or budget	L
222	EWS	15	information	Vagueness in reports	L
223	EWS	1	infrastructure	% capital budget spent	JW
224	EWS	2	infrastructure	% expenditure on MIG budget	JW
225	EWS	3	infrastructure	ages of assets	I
226	EWS	4	infrastructure	ages of infrastructure	I
227	EWS	5	infrastructure	amount of capital expenditure	I
228	EWS	6	infrastructure	amount spent on building new infrastructure (Rand million)	I
229	EWS	7	infrastructure	amount spent on infrastructure maintenance (Rand million)	I
230	EWS	8	infrastructure	capital budget spent, amount	JW
231	EWS	9	infrastructure	expenditure of MIG allocation	JW
232	EWS	10	infrastructure	frequency of infrastructure audit performs	I
233	EWS	11	infrastructure	frequency of lifecycle capital planning	I
234	EWS	12	infrastructure	length of aging pipelines	JW
235	EWS	13	infrastructure	numbers of infrastructure broken-down	L
236	EWS	14	infrastructure	numbers of pipe burst	L
237	EWS	15	infrastructure	percentage of Cpex budget spent	I
238	EWS	16	infrastructure	quality of lifecycle capital planning	I
239	EWS	1	leadership	Chief Whip does not provide leadership in Caucus	I

240	EWS	2	leadership	Mayoral Committee does not provide effective leadership to municipality	I
241	EWS	3	leadership	Mayoral does not provide leadership to Mayoral Committee	I
242	EWS	4	leadership	number of instruction given in Caucus meetings	I
243	EWS	5	leadership	quality of instruction given in Caucus meetings, constructive or red-tape	I
244	EWS	6	leadership	quality of leadership provided by Chief Whip to the Caucus	I
245	EWS	7	leadership	quality of leadership provided by Mayoral Committee	I
246	EWS	1	Monitoring	frequency of checking asset register	I
247	EWS	2	Monitoring	frequency of updating asset register	I
248	EWS	3	Monitoring	Lack of method to provide feedback on a regular basis	L
249	EWS	4	Monitoring	number of delayed projects	I
250	EWS	5	Monitoring	number of mistakes in reports	I
251	EWS	6	Monitoring	quality of reports, internal consistency, page numbers, fonts and format	I
252	EWS	7	Monitoring	time duration that projects delay	I
253	EWS	1	operation	amount of financial losses due to litigation	CP
254	EWS	2	operation	amount of power losses, non-technical	CP
255	EWS	3	operation	amount of power losses, technical	CP
256	EWS	1	others	Diversion of resources, usually people, pulled off the project to work on something else	I
257	EWS	1	output	amount of spills & overflows at wastewater treatment works per year	JW
258	EWS	2	output	audit opinion	CP, I
259	EWS	3	output	days taken to install electricity connection from an initial request	CP
260	EWS	4	output	days taken to install water connection from an initial request	JW
261	EWS	5	output	drinking water quality, % of compliance	JW
262	EWS	6	output	duration (total) of power outage	CP
263	EWS	7	output	final effluent compliance	JW
264	EWS	8	output	frequency of power outage	CP
265	EWS	9	output	level of power losses, non-technical	CP
266	EWS	10	output	level of power losses, technical	CP
267	EWS	11	output	level of UFW, commercial	JW
268	EWS	12	output	level of UFW, physical	JW
269	EWS	13	output	number of accidents of spillages on streets	P
270	EWS	14	output	number of cleaning of mainline sewer blockages within 24 hours	JW
271	EWS	15	output	number of days that collect refuse late, (Some trucks often collect late at night when residents are	P

				asleep).	
272	EWS	16	output	number of days that fail to collect refuse	P
273	EWS	17	output	number of electricity connections done in a month	CP
274	EWS	18	output	number of electricity disconnections done in a month	CP
275	EWS	19	output	number of fatalities	CP
276	EWS	20	output	number of households access to sanitation	JW
277	EWS	21	output	number of households access to water	JW
278	EWS	22	output	number of licenses lost	CP
279	EWS	23	output	number of litigation	CP
280	EWS	24	output	number of meters read in a month	I
281	EWS	25	output	number of power outages	CP
282	EWS	26	output	number of restoration of mainline water bursts within 48 hours	JW
283	EWS	27	output	number of sewer blockages cleared within 24 hours of notification	JW
284	EWS	28	output	number of sewer blockages experienced per 100km	JW
285	EWS	29	output	number of unplanned maintenance	CP
286	EWS	30	output	number of water connections done in a month	JW
287	EWS	31	output	number of water disconnections done in a month	JW
288	EWS	32	output	number of water pipe burst experienced per 100 km of water networks	JW
289	EWS	33	output	numbers of billing complaints	L
290	EWS	34	output	numbers of meter-reading	L
291	EWS	35	output	numbers of power outages	L
292	EWS	36	output	numbers of unplanned power outages	L
293	EWS	37	output	numbers of unplanned water outages	L
294	EWS	38	output	numbers of water outages	L
295	EWS	39	output	overall performance score	JW
296	EWS	40	output	power restoration time	CP
297	EWS	41	output	rate of billing (CoJ)	I
298	EWS	42	output	rate of cleaning of mainline sewer blockages within 24 hours	JW
299	EWS	43	output	rate of restoration of mainline water bursts within 48 hours	JW
300	EWS	44	output	rate of sewer blockages cleared within 24 hours of notification	JW
301	EWS	45	output	response times of sewer blockage, within 24 hours of notification	JW
302	EWS	46	output	response times of water bursts, within 48 hours of notification	JW

303	EWS	47	output	water quality standard (SANS 241) compliance level	JW
304	EWS	1	planning	Changes in plans	L
305	EWS	2	planning	Imprecise project objectives	L
306	EWS	3	planning	Lack of a clearly defined long-term development strategy	L
307	EWS	4	planning	Lack of an effective project communications plan	L
308	EWS	5	planning	Lack of clarity in directions and objectives	I
309	EWS	6	planning	Lack of clear milestones for project	L
310	EWS	7	planning	lack of planning to meet the infrastructure and services backlogs	L
311	EWS	8	planning	Many Year-End Adjustments and/or Write-Offs	I
312	EWS	9	planning	Not all required interactions are included in the communication plan	L
313	EWS	10	planning	Plan deviations	L
314	EWS	11	planning	Plan with errors	L
315	EWS	12	planning	Poor forecasting or estimation, in planns and budgets	I
316	EWS	13	planning	Poorly-drawn business or project plans	L
317	EWS	14	planning	Shifting goals and priorities	L
318	EWS	15	planning	Sloppily-drawn resource plan	L
319	EWS	16	planning	Unclear responsibilities	I
320	EWS	17	planning	variations between budgets and actual expenditures and revenues	I, L
321	EWS	1	PP	A public complaints register and system does not established	I
322	EWS	2	PP	average number of people attended in community meetings or gathering	I
323	EWS	3	PP	Bad Relationship with communities	I
324	EWS	4	PP	Frequency of stakeholder meetings (engagements)	P
325	EWS	5	PP	Lack of effective communication with community members	L
326	EWS	6	PP	Low stakeholders involvement	L
327	EWS	7	PP	Number of attendance at stakeholder meetings (or engagements)	P
328	EWS	8	PP	number of grievances by public	I
329	EWS	9	PP	number of meeting with communities	I
330	EWS	10	PP	Poor stakeholder representation in meetings	L
331	EWS	11	PP	The municipality does not have a public communication strategy and systems in place	I
332	EWS	12	PP	The municipality does not have public participation plans and policies in place	I
333	EWS	13	PP	Weak public participation structures	L
334	EWS	1	problem	amount of cable loss	CP

335	EWS	2	problem	number of incidents of illegal connection	CP
336	EWS	3	problem	number of meter tampered	CP
337	EWS	1	process	billing level %	JW
338	EWS	2	process	Changes and disturbances in workflow	L
339	EWS	3	process	Delayed decisions caused by Inappropriate or Inadequate Financial Information	I
340	EWS	4	process	Delays in billing	L
341	EWS	5	process	electrical consumption at Wastewater Treatment Works	JW
342	EWS	6	process	Failure to meet deadlines	I
343	EWS	7	process	Increase in flow of paper-work	L
344	EWS	8	process	Late or even no-submission of reports	L
345	EWS	9	process	Late reports	L
346	EWS	10	process	Missed deadlines	L
347	EWS	11	process	Missed targets	L
348	EWS	12	process	Monthly financials delivered after the 15th of the month.	I
349	EWS	13	process	No regular (daily or weekly) reporting of the three or four key indicators of the business	I
350	EWS	14	process	number of contracts that fail to delivery services	CP
351	EWS	15	process	number of unread meters	CP, JW
352	EWS	16	process	numbers of meeting attendances	L
353	EWS	17	process	numbers of meetings	L
354	EWS	18	process	Numerous disturbances and breaks	L
355	EWS	19	process	Overusing the Overtime	I
356	EWS	20	process	Repetition of the same work	L
357	EWS	21	process	revenue collection, amount, 2013	JW
358	EWS	1	SCM	Failure to timeously renew the meter-reading contract	L
359	EWS	2	SCM	interest involved between contractors and decision-makers	I
360	EWS	3	SCM	Involvement of REC or its members in tenders or appointment or micro-managing decisions	I
361	EWS	4	SCM	poor performing contractors	L
362	EWS	5	SCM	quality of management over consultants	I
363	EWS	6	SCM	quality of management over contracts	I
364	EWS	7	SCM	quality of monitoring over consultants' performance	I
365	EWS	8	SCM	quality of monitoring over contractors' performance	I
366	EWS	9	SCM	quality of SCM processes	I

367	EWS	10	SCM	quality of tender process, properly followed	I
368	EWS	11	SCM	quality of tender selection, according to procedures and regulation	I
369	EWS	12	SCM	quality of transitions with private sector, competitive, transparent?	I
370	EWS	1	supervision	General lack of a visible presence of managers at front-line of service facilities	L
371	EWS	1	system	Inadequate Management Information System (MIS)	I
372	EWS	2	system	No dynamic measurement of the results of operations and of cash flow — in-depth budget-to-actual comparisons and effective cash-flow management	I
373	EWS	3	system	No standard cost system	I

Appendix P: City Power's financial performance (2010-2013)

Description	2010/11	2011/12	2012/13
R thousands	**Audited Outcome**	**Audited Outcome**	**Audited Outcome**
Financial Performance			
Property rates	–	–	–
Service charges	9,144,630	10,908,871	11,555,483
Investment revenue	–	–	–
Transfers recognised - operational	–	182,879	133,000
Other own revenue	777,961	1,309,167	1,035,092
Total Revenue (excluding capital transfers and contributions)	**9,922,591**	**12,400,917**	**12,723,575**
Employee costs	649,538	696,754	689,374
Remuneration of Board Members	–	–	–
Depreciation and debt impairment	1,057,733	705,499	689,011
Finance charges	–	–	–
Materials and bulk purchases	5,984,046	7,638,806	8,194,936
Transfers and grants	–	–	–
Other expenditure	1,031,164	1,084,408	1,574,471
Total Expenditure	**8,722,481**	**10,125,467**	**11,147,792**
Surplus/(Deficit)	**1,200,110**	**2,275,450**	**1,575,783**
Transfers recognised - capital	393,237	375,276	353,176
Contributions recognised - capital & contributed assets	191,538	192,397	220,176
Surplus/(Deficit) after capital transfers & contributions	**1,784,885**	**2,843,123**	**2,149,135**
Taxation	260,832	424,571	44,396
Surplus/ (Deficit) for the year	**1,524,053**	**2,418,552**	**2,104,739**
Capital expenditure & funds sources			
Capital expenditure	**1,089,834**	**702,663**	**1,288,536**
Transfers recognised - capital	140,346	130,174	120,403
Public contributions & donations	383,547	263,108	293,209
Borrowing	542,000	297,399	399,069
Internally generated funds	23,942	11,982	475,855
Total sources of capital funds	**1,089,834**	**702,663**	**1,288,536**
Financial position			

Total current assets	4,751,715	5,072,116	5,336,024
Total non current assets	6,802,468	7,264,561	8,015,756
Total current liabilities	3,754,441	2,804,757	2,857,538
Total non current liabilities	3,868,972	4,190,192	4,166,291
Community wealth/Equity	3,930,770	5,341,728	6,327,951
Cash flows			
Net cash from (used) operating	1,633,938	(9,380)	2,633,204
Net cash from (used) investing	(1,089,834)	(586,500)	(1,118,446)
Net cash from (used) financing	–	–	–
Cash/cash equivalents at the year end	**1,786,501**	**1,190,621**	**2,705,379**

Source: City Power (2014d).

Appendix Q: Johannesburg Water's financial performance (2010-2013)

Description	2010/11	2011/12	2012/13
R thousands	**Audited Outcome**	**Audited Outcome**	**Audited Outcome**
Financial Performance			
Property rates	–	–	–
Service charges	4,638,224	5,112,513	5,871,968
Investment revenue	–	–	–
Transfers recognised - operational	–	219,563	379,565
Other own revenue	–	227,730	350,018
Total Revenue (excluding capital transfers and contributions)	**4,638,224**	**5,559,806**	**6,601,551**
Employee costs	569,491	628,060	693,738
Remuneration of Board Members	–	–	–
Depreciation and debt impairment	752,368	855,367	909,879
Finance charges	19,738	49,047	47,412
Materials and bulk purchases	2,125,270	2,465,733	2,839,333
Transfers and grants	–	–	–
Other expenditure	653,818	838,507	912,745
Total Expenditure	**4,120,685**	**4,836,714**	**5,403,107**
Surplus/(Deficit)	**517,539**	**723,092**	**1,198,444**
Transfers recognised - capital	268,930	254,028	421,014
Contributions recognised - capital & contributed assets	–	34,465	41,449
Surplus/(Deficit) after capital transfers & contributions	**786,469**	**1,011,585**	**1,660,907**
Taxation	–	–	–
Surplus/ (Deficit) for the year	**786,469**	**1,011,585**	**1,660,907**
Capital expenditure & funds sources			
Capital expenditure	**614,502**	**539,632**	**741,950**
Transfers recognised - capital	–	3,632	784
Public contributions & donations	164,378	232,825	397,363

Borrowing	450,125	303,175	342,222
Internally generated funds	–	–	1,581
Total sources of capital funds	**614,502**	**539,632**	**741,950**
Financial position			
Total current assets	1,639,465	2,092,471	1,512,719
Total non current assets	5,431,403	6,011,646	6,787,123
Total current liabilities	1,432,882	1,894,187	1,841,264
Total non current liabilities	2,625,861	2,629,453	2,555,388
Community wealth/Equity	3,012,125	3,580,477	3,903,191
Cash flows			
Net cash from (used) operating	(373,195)	359,152	239,776
Net cash from (used) investing	(477,950)	(701,542)	(571,764)
Net cash from (used) financing	698,799	265,110	385,499
Cash/cash equivalents at the year end	**96,498**	**19,217**	**72,729**

Source: Johannesburg Water (2014b)

Appendix R: Pikitup's financial performance (2010-2013)

Description	2010/11	2011/12	2012/13
R thousands	**Audited Outcome**	**Audited Outcome**	**Audited Outcome**
Financial Performance			
Property rates	–	–	–
Service charges	213,633	214,014	237,568
Investment revenue	2,483	1,881	3,714
Transfers recognised - operational	920,662	1,071,629	1,147,067
Other own revenue	7,237	4,962	2,093
Total Revenue (excluding capital transfers and contributions)	**1,144,015**	**1,292,486**	**1,390,442**
Employee costs	418,376	525,705	709,113
Remuneration of Board Members	–	–	–
Depreciation and debt impairment	84,325	41,647	38,366
Finance charges	–	–	–
Materials and bulk purchases	–	–	–
Transfers and grants	–	–	–
Other expenditure	640,294	711,459	660,881
Total Expenditure	**1,142,995**	**1,278,811**	**1,408,360**
Surplus/(Deficit)	**1,020**	**13,675**	**(17,918)**
Transfers recognised - capital	–	–	–
Contributions recognised - capital & contributed assets	–	–	–
Surplus/(Deficit) after capital transfers & contributions	**1,020**	**13,675**	**(17,918)**
Taxation	–	–	–
Surplus/ (Deficit) for the year	**1,020**	**13,675**	**(17,918)**
Capital expenditure & funds sources			
Capital expenditure	**–**	**–**	**41,582**
Transfers recognised - capital	–	–	41,582
Public contributions & donations	–	–	–

Borrowing	–	–	–
Internally generated funds	–	–	–
Total sources of capital funds	**–**	**–**	**41,582**
Financial position			
Total current assets	123,588	270,748	502,935
Total non current assets	386,430	750,820	720,833
Total current liabilities	356,827	222,723	504,370
Total non current liabilities	506,231	1,125,987	1,091,956
Community wealth/Equity	(353,041)	(327,142)	(372,559)
Cash flows			
Net cash from (used) operating	82,900	(45,541)	(39,870)
Net cash from (used) investing	(40,193)	(48,527)	(41,132)
Net cash from (used) financing	(42,706)	94,068	80,990
Cash/cash equivalents at the year end	**11**	**11**	**0**

Source: Pikitup (2014b).

Appendix S: Auditor General 2015 Reports on Joburg Water and Pikitup

Report of the auditor-general to the Gauteng Provincial Legislature and the council of the City of Johannesburg Metropolitan Municipality on Johannesburg Water SOC Limited

Report on the financial statements

Introduction

1. I have audited the financial statements of the Johannesburg Water SOC Limited set out on pages ... to ..., which comprise the statement of financial position as at 30 June 2015, the statement of financial performance, statement of changes in net assets, cash flow statement and the statement of comparison of budget and actual amounts for the year then ended, as well as the notes, comprising a summary of significant accounting policies and other explanatory information.

Accounting officer's responsibility for the financial statements

2. The accounting officer is responsible for the preparation and fair presentation of these financial statements in accordance with South African Standards of Generally Recognised Accounting Practice (SA standards of GRAP) and the requirements of the Municipal Finance Management Act of South Africa, 2003 (Act No. 56 of 2003) (MFMA) and the Companies Act of South Africa, 2008 (Act No. 71 of 2008) (Companies Act) and for such internal control as the accounting officer determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor-general's responsibility

3. My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with International Standards on Auditing. Those standards require that I comply with ethical requirements, and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

4. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the municipal entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the municipal entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

5. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

6. In my opinion, the financial statements present fairly, in all material respects, the financial position of the Johannesburg Water SOC Limited as at 30 June 2015 and its financial performance and cash flows for the year then ended, in accordance with SA standards of GRAP and the requirements of the MFMA and the Companies Act.

Emphasis of matters

7. I draw attention to the matters below. My opinion is not modified in respect of these matters.

Restatement of corresponding figures

8. As disclosed in note 37 to the financial statements, the corresponding figures for June 2014 have been restated as a result of errors discovered in the financial statements of Johannesburg Water during the year ended June 2015.

Material impairments

9. As disclosed in note 11 to the financial statements, material impairments to the amount of R3 874 196 000 (2014: R5 748 754 000) representing 66% (2014:77%) of consumer debtors were incurred, as the recoverability of these amounts is doubtful.

Additional matters

10. I draw attention to the matters below. My opinion is not modified in respect of these matters.

Unaudited disclosure notes

11. In terms of section 125(2) (e) of the MFMA the municipal entity is required to disclose particulars of non-compliance with the MFMA. This disclosure requirement did not form part of the audit of the financial statements and accordingly I do not express an opinion thereon.

Other reports required by the Companies Act

12. As part of our audit of the financial statements for the year ended 30 June 2015, I have read the Director's Report, the Audit Committee's Report and the Company Secretary's Certificate for the purpose of identifying whether there are material inconsistencies between these reports and the audited financial statements. These reports are the responsibility of the respective preparers. Based on reading these reports, I have not identified material inconsistencies between the reports and the audited financial statements. I have not audited the reports and accordingly do not express an opinion on them.

Source: AG, 2015jw: 13-4

Report of the Auditor-General

to the Gauteng Provincial Legislature and the Council of the City of Johannesburg Metropolitan Municipality on Pikitup Johannesburg SOC Limited

Report on the financial statements

Introduction

1. I have audited the financial statements of Pikitup Johannesburg (SOC) Limited set out on pages 78 to 114, which comprise the statement of financial position as at 30 June 2015, the statement of financial performance, statement of changes in net assets, cash flow statement and the statement of comparison of budget information with actual information for the year then ended, as well as the notes, comprising a summary of significant accounting policies and other explanatory information.

Accounting officer's responsibility for the financial statements

2. The accounting officer is responsible for the preparation and fair presentation of these financial statements in accordance with South African Standards of Generally Recognised Accounting Practice (SA standards of GRAP) and the requirements of the Municipal Finance Management Act of South Africa (Act No. 56 of 2003) (MFMA), the Companies Act of South Africa (Act No. 71 of 2008) (Companies Act), and for such internal control as the accounting officer determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor-General's responsibility

3. My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with International Standards on Auditing. Those standards require that I comply with ethical requirements, and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

4. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the municipal entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the municipal entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

5. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

6. In my opinion, the financial statements present fairly, in all material respects, the financial position of Pikitup Johannesburg SOC Limited as at 30 June 2015 and its financial performance and cash flows for the year then ended, in accordance with SA Standards of GRAP and the requirements of the MFMA.

Emphasis of matters

7. I draw attention to the matters below. My opinion is not modified in respect of these matters.

Change in accounting policy

8. As disclosed in note 41 to the financial statements, Pikitup Johannesburg SOC Limited adopted a revised policy for doubtful debts in the current financial year which resulted in a change in the measurement basis. The change in accounting policy has been applied retrospectively effective from 1 July 2013.

Material impairments

9. As disclosed in note 11 to the financial statements, material impairments to the amount of R3 874 196 000 (2014: R5 748 754 000), representing 66% (2014: 77%) of consumer debtors, were incurred as the recoverability of these amounts is doubtful.

Additional matters

10. I draw attention to the matters below. My opinion is not modified in respect of these matters.

Other reports required by the Companies Act

11. As part of our audit of the financial statements for the year ended 30 June 2015, I have read the Directors' report, the Audit and Risk Committee report and the Company Secretary's Certificate for the purpose of identifying whether there are material inconsistencies between these reports and the audited financial statements. These reports are the responsibility of the respective preparers. Based on reading these reports, I have not identified material inconsistencies between the reports and the audited financial statements. I have not audited the reports and accordingly do not express an opinion on them.

Unaudited disclosure notes

12. In terms of Section 125(2) (e) of the MFMA the municipal entity is required to disclose particulars of non-compliance with the MFMA. This disclosure requirement did not form part of the audit of the

Source: AG, 2015p:1

Appendix T: CoJ' Request for Quotation

for Research and Compilation of its Integrated Annual Report for 2013/14

a world class African city

City of Johannesburg
Supply Chain Management Unit

SUPPLIER NAME: _____

REQUEST FOR QUOTATION FOR GOODS AND SERVICES FOR THE CITY OF JOHANNESBURG

Procurement Less than R 200 000 (Including Vat)

(For publication on the City of Johannesburg Notice Board/s & Website)

The City of Johannesburg requests your quotation on the goods and/or services listed hereunder and/or on the available RFQ forms. Please furnish all information as requested and return your quotation on the date stipulated. Late and incomplete submissions will invalidate the quotation submitted.

ADVERTISEMENT DATE	**01/07/2014**
DEPARTMENT	**Monitoring And Evaluation**
RFQ NUMBER:	**R0297/14**
DESCRIPTION OF GOODS/SERVICES	**Research And Compilation Of City Of Johannesburg Integrated Annual Report For 2013/14**
RFQ SPECIFICATION FORMS/ DOCUMENTS ARE OBTAINABLE FROM:	**The COJ Website – www.joburg.org.za/quotations** **OR** **FROM INFORMATION DESK** **15TH FLOOR** **METRO CENTRE** **158 Civic Boulevard street** **BRAAMFONTEIN**
COMPULSORY REQUIREMENTS	**PLEASE NOTE THAT NOT SUBMITTING THE COMPULSORY DOCUMENTS MAY LEAD TO DISQUALIFICATION.**
SUBMISSION OF QUOTES:	**QUOTATION BOX, GROUND FLOOR, METRO CENTRE** **158 Civic Boulevard street, Braamfontein**
TIME: **CLOSING DATE**	**10h30** **08/07/2014**
ENQUIRIES:	**Salatial Chikwema 011 587 4365/0837650128**

Quotations above R30 000 will be evaluated on the basis of the 80:20 point system as stipulated in the Preferential Procurement Policy Framework Act (Act number 5 of 2000) & the City's Supply Chain Management Policies and Procedures.

Source: CoJ Website, http://www.joburg.org.za/images/stories/2014/July/rfq%20-%20r0297%2014.pdf

REFERENCES

Ababio, E.P. (2004). Enhancing community participation in developmental local government for improved service delivery. *Journal of Public Administration*, 39(2): 272-289.

Abrahams, M. A. (2003). *Theory-based evaluation of community development: a South African case study*. Unpublished PhD thesis submitted to the University of Stellenbosch, on December 2003. Retrieved on March 16, 2016 from https://scholar.sun.ac.za/bitstream/handle/10019.1/15936/abrahams_theory_2003.pdf

AEO (African Economic Outlook) (2012). *Education & Skills Mismatch: Young people need more comprehensive education that responds to labour market needs*. Retrieved on June 10, 2015 from http://www.africaneconomicoutlook.org/en/theme/youth_employment/education-skills-mismatch/

AG (The Auditor-General, South Africa) (2010a). *Report of the Auditor-General to the Gauteng Provincial Legislature and the Council on the City of Johannesburg Metropolitan Municipality, Report on the Consolidated Financial Statements*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2010b). *Report of the Auditor-General to the Gauteng Provincial Legislature and the Council of City of Johannesburg Metropolitan Municipality on City Power Johannesburg (PTY) LTD, Report on the Financial Statements*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2010c). *Report of the Auditor-General to Gauteng Provincial Legislature and the Council of the City of Johannesburg Metropolitan Municipality on Johannesburg Water SOC Ltd*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2010d). *Report of the Auditor-General to Gauteng Provincial Legislature and the Council of the City of Johannesburg Metropolitan Municipality on Pikitup Johannesburg SOC Ltd*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2011a). *Report of the Auditor-General to the Gauteng Provincial Legislature and the Council on the City of Johannesburg*

Metropolitan Municipality, Report on the Consolidated Financial Statements. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2011b). *Report of the Auditor-General to the Gauteng Provincial Legislature and the Council of City of Johannesburg Metropolitan Municipality on City Power Johannesburg (PTY) LTD, Report on the Financial Statements*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2011c). *Report of the Auditor-General to Gauteng Provincial Legislature and the Council of the City of Johannesburg Metropolitan Municipality on Pikitup Johannesburg SOC Ltd*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2011d). *Consolidated general report on the local government audit outcomes 2009-10*. Johannesburg: The Auditor-General Office. Retrieved on April 11, 2012 from http://www.agsa.co.za/Reports%20Documents/Consolidated.pdf

AG (The Auditor-General, South Africa) (2012a). *Report of the Auditor-General to the Gauteng Provincial Legislature and the Council on the City of Johannesburg Metropolitan Municipality, Report on the Consolidated Financial Statements*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2012b). *Report of the Auditor-General to the Gauteng Provincial Legislature and the Council of City of Johannesburg Metropolitan Municipality on City Power Johannesburg (PTY) LTD, Report on the Financial Statements*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2012c). *Report of the Auditor-General to Gauteng Provincial Legislature and the Council of the City of Johannesburg Metropolitan Municipality on Johannesburg Water SOC Ltd.* Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2012d). *Report of the Auditor-General to Gauteng Provincial Legislature and the Council of the City of Johannesburg Metropolitan Municipality on Pikitup Johannesburg SOC Ltd. Johannesburg*: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2012e). *Nationwide local government audit results unchanged at unqualified audit option level*. Issued on 23th July 2012. Retrieved on September 10, 2012 from http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=29289&tid=77348

AG (The Auditor-General, South Africa) (2012f). *General report on the audit outcomes of the Gauteng Local Government*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2013a). *Report of the Auditor-General to the Gauteng Provincial Legislature and the Council on the City of Johannesburg Metropolitan Municipality, Report on the Consolidated Financial Statements*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2013b). *Report of the Auditor-General to the Gauteng Provincial Legislature and the Council of City of Johannesburg Metropolitan Municipality on City Power Johannesburg (PTY) LTD, Report on the Financial Statements*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2013c). *Report of the Auditor-General to Gauteng Provincial Legislature and the Council of the City of Johannesburg Metropolitan Municipality on Johannesburg Water SOC Ltd*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2013d). *Report of the Auditor-General to Gauteng Provincial Legislature and the Council of the City of Johannesburg Metropolitan Municipality on Pikitup Johannesburg SOC Ltd*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2013e). *Consolidated General Report on the Audit Outcomes of Local Government 2011-12*. Retrieved on January 25, 2014 on http://www.agsa.co.za/Portals/0/MFMA2011-12Extracts/MFMA_2011-12_consolidated_reports/AGSA_MFMA_CONSOLIDATED_REPORT_2011_12.pdf

AG (The Auditor-General, South Africa) (2014a). *Report of the Auditor-General to the Gauteng Provincial Legislature and the Council on the City of Johannesburg Metropolitan Municipality, Report on the Consolidated Financial Statements*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2014b). *Report of the Auditor-General to the Gauteng Provincial Legislature and the Council of City of Johannesburg Metropolitan Municipality on City Power Johannesburg (PTY) LTD, Report on the Financial Statements*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2014c). *Report of the Auditor-General to Gauteng Provincial Legislature and the Council of the City of Johannesburg Metropolitan Municipality on Johannesburg Water SOC Ltd*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2014d). *Report of the Auditor-General to Gauteng Provincial Legislature and the Council of the City of Johannesburg Metropolitan Municipality on Pikitup Johannesburg SOC Ltd*. Johannesburg: The Auditor-General Office.

AG (The Auditor-General, South Africa) (2015js). Report of the Auditor-General to the Gauteng Provincial Legislature and the Council of the City of Johannesburg Metropolitan Municipality on Johannesburg Water SOC Limited.

AG (The Auditor-General, South Africa) (2015p). Report of the Auditor-General to the Gauteng Provincial Legislature and the Council of the City of Johannesburg Metropolitan Municipality on Pikitup Johannesburg SOC Limited.

AG (The Auditor-General, South Africa) (2016). *General report on the audit outcomes of the Gauteng Local Government*. Johannesburg: The Auditor-General Office.

Alexander, G. & Kane-Berman, J. (2014). *The 80/20 Report: LG in 80 Indicators After 20 Years of Democracy.* Retrieved on September 16, 2016 from http://irr.org.za/reports-and-publications/occasional-reports/files/the-80-20-report-on-local-government-26-may-2014-1.pdf

Allan, K. & Heese, K. (2011). *Understanding why service delivery protests take place and who is to blame*. Retrieved on October 25, 2016 from www.municipaliq.co.za/publications/articles/sunday_indep.pdf

Allan, K. Gotz, G. & Joseph, C. (2001). *Johannesburg: An African city in change.* Cape Town: Struik Publishers

Allan, K., Gotz, G. & Joseph, C. (2001). *Johannesburg: An African city in change.* Cape Town: Struik Publishers.

Altman, S. (1979). Performance Monitoring Systems for Public Managers. *Journal of Public Administration Review*, 39 (1), 31-35.

Amajuba District Municipality (2013). *PMS Policy 2013/2014*. Retrieved on March 29, 2016 from www.amajuba.gov.za

Amathole District Municipality (2013). *Performance Management Framework*. Retrieved March 29, 2016 from http://www.amathole.gov.za/old/attachments/article/908/Draft%20Reviewed%20%20Performance%20Management%20Framework%20%20for%202014-15%20(Version%208).pdf.

Anderson, G. (1993). *Fundamentals of Educational Research*. London: Falmer.

Ansoff, I. H. & McDonnell, E. (1990). *Implementing Strategic Management* (2nd Ed). New York: Prentice-Hall.

Ansoff, I. H. (1975). Managing Strategic Surprise by Response to Weak Signals. *California Management Review* XVIII (2), 21-33.

Ansoff, I. H. (1979). *Strategic Management*. London: Macmillan.

Ansoff, I. H. (1980). Strategic issues management. *Strategic Management Journal* 1 (1980), 131–148.

Ansoff, I. H. (1984). *Implementing Strategic Management*. New York: Prentice/Hall.

Arends, D. (2011). An assessment of the effectiveness of Public Consultation: The case study of selected ward committees in the Northern Areas, Nelson Mandela Bay Municipality. MPA dissertation submitted in partial fulfillment of the requirements for the degree of Masters in Public Administration in the Faculty of Arts, Nelson Mandela Metropolitan University, January 2011.

Ary, D., Jacobs, L. C., & Razavieh, A. (1990). *Introduction to research in education* (4th ed.). Fort Worth, TX: Holt, Rinehart, and Winston.

Ashley, D. B. (1989). *Project Risk Identification Using Inference Subjective Expert Assessment and Historical Data.* Paper presented at the Proceedings of the International Project Management Association.

Atkinson, D. (2004). The state of local government: Third-generation issues. In Daniel.J., A. Habib & R. Southall (eds). *State* of the Nation: South Africa 2003- *2004*. Pretoria: HSRC Press.

Atkinson, D. (2007) Has Developmental Local Government Failed in South Africa?", in Sakhela Buhlungu, John Daniel, and Roger Southall (eds.) *The State of the Nation: South Africa 2007* (Pretoria: Human Sciences Research Council, 2007)

Aucoin, P. (1990). Administrative Reform in Public Management: Paradigms, Principles, Paradoxes, and Pendulums. *Governance* 3, 115-37.

Ayeni, V. (2002). *Public Sector Reform in Developing Countries: A Handbook of Commonwealth Experiences*. London: Commonwealth Secretariat

Babbie, E. (1989). *The practice of social research* (5th Ed). California: Wadsworth.

Bale, M. & Dale, T. (1998). Public Sector Reform in New Zealand and Its Relevance to Developing Countries. *The World Bank Research Observer*, 13(1) (February 1998), 103-121. Retrieved on April 01, 2011 from http://www.wbro.oxfordjournals.org

Bardill, J. E. (2000). Towards a culture of good governance: The Presidential Review Commission and Public Service Reform in South Africa. *Public Administration and Development*. Vol. 20, 2000. Retrieved on May 11, 2011 from http://onlinelibrary.wiley.com/doi/10.1002/1099-162X(200005)20:2%3C103::AID-PAD116%3E3.0.CO;2-4/pdf

Basher, R. (2006). Global early warning systems for natural hazards: systematic and people-centred. *Philosophical Transactions of the Royal Society, A*(364), 2167-2182.

Bastia, T. (2000). *Qualitative and Quantitative Indicators for the Monitoring and Evaluation of the ILO Gender Mainstreaming Strategy*. Retrieved on December 1, 2015 from https://www.academia.edu/694038/Qualitative_and_Quantitative_Indicators_for_the_Monitoring_and_Evaluation_of_the_ILO_Gender_Mainstreaming_Strategy

Beall, J., Crankshaw, O. & Parnell, S. (2002). *Uniting a Divided City: Governance and Social Exclusion in Johannesburg*. London: Earthscan.

Becker, G. S. (1968). Crime and Punishment: An Economic Approach. *Journal of Political Economy* 76(2), 169-217.

Becker, G. S. (1993). Nobel Lecture: The Economic Way of Looking at Behavior. *The Journal of Political Economy*, 101(3) (June, 1993), 385-409.

Bekink, B. (2006). *Restructuring (systemization) of LG under the SA 1996 constitution*. Unpublished PhD thesis submitted to the Department of Public Law, Faculty of Law, University of Pretoria. Retrieved on February 23, 2016 from http://repository.up.ac.za/handle/2263/30097

Benit-Gbaffou, C. (2006). *Holding Local Government Accountable? Civil Society, Ward Councillors and Decision-making in Johannesburg.* Paper presented at HSRC conference, The place of participation in a democratising South Africa: decentralisation, local councillors and civil society in post-apartheid cities. Johannesburg, 20-21 November.

Benit-Gbaffou, C. (2008). Local councillors: scapegoats for a dysfunctional participatory democratic system? Lessons from practices of local democracy in Johannesburg. Critical Dialogue – Public Participation in Review, pp. 26-33. Retrieved on September 16, 2016 from http://146.141.12.21/handle/10539/12155

Benit-Gbaffou, C. (2012). Party Politics, the Poor and the City. *Geoforum*, Special issue on Party Politics, the Poor and the City, 2012, 43(2), pp. 178-189.

Berg, S. V. (2013). *Best practices in regulating State-owned and municipal water utilities*. Economic Commission for Latin America and the Caribbean (ECLAC). Retrieved on December 1, 2015 from http://www.susana.org/en/resources/library/details/1855

Berry, L. L. (1991). Mistakes that service companies make in quality improvement. In *Bank Marketing*, Vol. 23 (4). pp. 68-69. Retrieved on July 17, 2013 from http://areas.kenan-flagler.unc.edu/marketing/facultystaff/zeithaml/selected%20publications/improving%20service%20quality%20in%20america-%20lessons%20learned.pdf

Betts, R. K. (1982). *Surprise Attack, Lessons for Defense Planning*. Washington D.C., USA: The Brookings Institution.

Bindra, S. (2004). Poor management is the root cause of under-performance. *Sunday Nation*, February 15, 2004. Retrieved on January 21, 2013 from http://www.sunwords.com/2004/02/15/poor-management-is-the-root-cause-of-under-performance/

Blauner, R. (1964). *Alienation and Freedom: The Factory Worker and His Industry*. Chicago: The University of Chicago Pres.

Bogdan, R.C. & Biklen S.K. (1998). *Qualitative Research for Education: An Introduction to Theory and Methods* (3rd Ed.). Boston, MA: Allyn & Bacon.

Bond, P. (2007). Johannesburg: Of gold and gangsters. In Davis M & Monk DB (eds.) *Evil paradises: Dreamworlds of neo-liberalism.* New York: New Press.

Bonga, E. (2007). *An Insight into the Causes of Poor Service Delivery in KwaZulu-Natal Province: A case study of eight municipalities in the Northern Region*. Unpublished Master dissertation to University of KwaZulu-Natal, South Africa. Retrieved January 15, 2014, from http://researchspace.ukzn.ac.za/xmlui/bitstream/handle/10413/2112/ Bonga_Edward_2007.pdf

Booysen, S. (2007). 'With the ballot and the brick: the politics of attaining service delivery', *Progress in Development Studies* 7(1).

Booysen, S. (2009). Beyond the ballot and the brick: continuous and dual repertoires in the politics of attaining service delivery in South Africa. In A. McLennan and B. Munslow, eds. *The Politics of Service Delivery*. Johannesburg: Wits University Press.

Bouckaef, G. & Halligan, J. (2008). *Managing Performance: International Comparisons*. London: Routledge.

Boyatzis, R.E. (1998) Transforming qualitative information: Thematic analysis and code development. Thousand Oaks, California: SAGE.

Bratton, M. & Sibanyoni, M. (2006). *Delivery or Responsiveness? A Popular Scorecard of Local Government Performance in South Africa*. Afrobarometer Working Paper No. 62, August 2006.

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology* 2006; (3) pp. 77-101. Retrieved on December 2, 2015 from www.tandfonline.com/doi/pdf/10.1191/1478088706qp063oa

Brink H. (1996). *Fundamentals of Research methodology for Health Care Professionals*. Cape Town: Juta & Company Ltd.

Brown, K. & Mde, V. (2005). South Africa: Skills Gap at Root of Delivery Crisis – Mbeki. *Business Day*, 25 July 2005. Retrieved on August 21, 2011 from http://allafrica.com/stories/200507250506.html

Buccus, I. (2011). Community development and engagement with local governance in South Africa: a view from KZN. Research paper prepared for Good Governance Learning Network (GGLN), April 2011. Retrieved on September 16, 2016 from http://ggln.org.za/1ddp-imraan-2010-11-research-paper.pdf

Buccus, I., Hemson, D., Hicks, J. and Piper, L. (2007). Public Participation and Local Governance. Retrieved on September 16, 2016 from http://www.cpp.org.za/docs/reports/2007/lg-reports0507.pdf

Buchanan, J. & Tullock, G. (1962). *The Calculus of Consent: Logical Foundations of Constitutional Democracy.* Ann Arbor (Michigan): University of Michigan Press. Retrieved on December 1, 2015 from http://files.libertyfund.org/files/1063/Buchanan_0102-03_EBk_v6.0.pdf

Buffalo City Municipality (2010). *Integrated Development Plan Review 2010/2011*. Retrieved on March 29, 2016 from http://s3.amazonaws.com/zanran_storage/www.buffalocity.gov.za/ ContentPages/51238932.pdf

Bundock, R. (2015). African Utility Week names City Power boss utility exec of the year. *Metering & Smart Energy International*, May 19, 2015. Retrieved on November 25, 2015 from http://www.metering.com/african-utility-week-names-city-power-boss-utility-exec-of-the-year/

Burawoy, M. (1998). The extended case method. *Sociological Theory*, 16(1), 4-33.

Burger, J (2009). *The Reasons Behind Service Delivery Protests in South Africa*. Institute for Security Studies, published 05 Aug 2009. Retrieved on March 25, 2011 from http://www.polity.org.za/article/the-reasons-behind-service-delivery-protests-in-south-africa-2009-08-05

Burger, J. & Ducharme, G. (2000). *Performance Measurement in Local Government. Reconciling Financial Performance with Other Performance Indicators*. Administratio Publica, 10(2), 1-12.

Caiden, G. (1988). The Vitality of Administrative Reform. *International Review of Administrative Sciences* 54(3), 331-58.

Cameron, R. (2009). *New Public Management Reforms in the South African Public Service: 1999-2008*. Paper presented at Political Studies departmental seminar, 28 April 2009. Retrieved on February 27, 2011 from http://web.uct.ac.za/depts/politics/depnews/StaffStudentSeminars/28apr09%20Cameron%20paper.doc

Cameron, R. (2012). Vertical Decentralization and Urban Service Delivery in South Africa: Does Politics Matter? Working Paper No. 2012/87 October 2012. Retrieved on September 16, 2016 from https://www.wider.unu.edu/sites/default/files/wp2012-087.pdf

Campbell, A., Converse, P., Miller, W. & Stokes, D. (1960). *The American Voter*. New York: John Wiley.

Cardone, R., Diop, C., Limam, A. Habib, J. & Inkinen, A. (2009). *Water Utilities in Africa: Case Studies of Transformation and Market Access*. Inputs to the Regional Practitioners' Workshop on "Market Finance for African Water Utilities" in Pretoria, South Africa.

Carrim, Y. (2009). *Deepening Accountability, Accelerating Service Delivery and Management Development*. A speech delivered at Institute of Local Government Managers Annual Conference, on 18 November 2009. Retrieved on February 10, 2012 from http://www.cogta.gov.za/index.php/component/content/article/174-yunus-carrim/267-deepening-accountability-accelerating-service-delivery-and-management-development-ilgm-18-nov.html

Carrim, Y. (2010). *Accelerating Service Delivery through Collective Action***.** A speech delivered at the Institute of Municipal Finance Officers Conference on 04 October 2010, in Durban. Retrieved on January 29, 2012 from http://www.cogta.gov.za/index.php/component/content/article/174-yunus-carrim/276-accelerating-service-delivery-through-collective-action.html

Carrim, Y. (2011a). *Making Local Government Work*. Johannesburg: Helen Suzman Foundation.

Carrim, Y. (2011b). Merit in Carrim's Call. *The New Age*, 21 Sep 2011. p. 16.

Carrim, Y. (2011c). *Towards a Review of the Local Government Financial System*. A speech delivered at National Assembly Budget Vote Debate on 31 May 2011. Retrieved on March 19, 2012 from http://www.cogta.gov.za/index.php/component/content/article/ 174-yunus-carrim/286-towards-a-review-of-the-local-government-financial-system.html

Carroll, P. B. & Mui, C (2008). *Billion-dollar lessons: What you can learn from the most inexcusable business failures of the last 25 years*. Penguin: Portfolio.

Castro-Leal, J., Dayton, L., Demery, L. & Mehra, K. (1999). Public spending in Africa: Do the poor benefit? *World Bank Research Observer*, 14(1), 49-72.

Cavana, R.Y., Delahaye, B.L. & Sekaran, U. (2001). *Applied Business Research: Qualitative and Quantitative Methods*. Singapore: John Wiley & Sons.

CDWP (Community Development Worker Programme) (2014). *Gauteng CDWP Report on Service Delivery Issues*. Unpublished, Confidential Report.

Centre for Development and Enterprise (CDE) (2007). *Voices of Anger: Protest and Conflict in Two Municipalities*. Johannesburg: Centre for Development and Enterprise (CDE). Retrieved September 25, 2016, from http://dspace.africaportal.org/jspui/bitstream/123456789/24893/1/Voices%20of%20Anger%20Phumelela%20and%20Khutsong%20-%20Protest%20and%20conflict%20in%20two%20municipalities.pdf?1

Chabane, C, (2009). *Media Briefing at the Parliamentary Monitoring Group*, on 20 May 2009. Retrieved on January 25, 2014 from http://www.pmg.org.za/briefing/20090521-minister-presidency-responsible-performance-monitoring-and-evaluati

Chadwick, B.A., Bahr, H.M. & Albrecht, S.L. (1984). *Social science research methods*. Englewood Cliffs, NJ: Prentice-Hall.

Chang, H-J & Singh, A. (1997). Can Large Firms be Run Efficiently without being Bureaucratic? *Journal of International Development*, 9(6), 865-875.

Chen, H. (2005), *Practical Program Evaluation: Assessing and Improving Planning, Implementation and Effectiveness*. Newbury Park, California: Sage.

Chimhowu, A. (2009). *Moving forward in Zimbabwe: Reducing poverty and promoting growth*. Retrieved on January 29, 2012 from http://www.bwpi.manchester.ac.uk/research/ResearchAreaProjects/Africa/Moving_forward_in_Zimbabwe_whole_report.pdf

Chipkin, I. (2011). Transcending bureaucracy: state transformation in the age of the manager. *Transformation* 77 (2011). Retrieved on April 11, 2012 from http://www.pari.org.za/wp-content/uploads/I-Chipkin-Transcedending-B.-Transformation-77.2011.pdf

Choo, C. W. (2006). *The Knowing Organization: How Organizations Use Information to Construct Meaning, Create Knowledge, and Make Decisions* (2nd Ed.) Oxford: Oxford University Press.

Choo, C. W. (2009). Information Use and Early Warning Effectiveness: Perspectives and Prospects. Journal of the American Society for Information Science and Technology, 60(5), 1071–1082. Retrieved on February 23, 2014 from DOI: 10.1002/asi.21038

Choo, R. (2015). S$19,800 fine, CWO for high-rise littering. *Today Online*, January 22, 2015. Retrieved on March 11, 2015 from http://www.todayonline.com/singapore/s19800-fine-cwo-high-rise-littering

Cleland, D. I. (1994). *Project Management: Strategic Design and Implementation* (2nd ed). New York: McGraw-Hill.

Coffman, B. (1997). Weak Signal Research, Part I: Introduction, Journal of Transition Management, MG Taylor Corporation (1997). Retrieved December 15, 2009, from www.mgtaylor.com/mgtaylor/jotm/winter97/wsrintro.htm

CoGTA (2014). *Back to Basic: Serving Our Communities Better!* Document presented at The Presidential Local Government Submit, 18 September 2014. Retrieved on September 16, 2016 from www.cogta.gov.za/cgta_2016/wp-content/uploads/2016/06/The-Presidential-Local-Government-Summit.pdf

CoGTA (2015). Gauteng Back-to-Basics Consolidated Report. Retrieved on September 16, 2016 from http://www.cogta.gpg.gov.za/Strategic%20Documents/Back%20to%20Basics%20Perspective.pdf

CoGTA (Cooperative Governance and Traditional Affairs) (2009). *State of Local Government in South Africa: Overview Report on National State of Local Government Assessments*. CoGTA Working Document) Pretoria: CoGTA. Retrieved on May 15, 2011 from http://www.pmg.org.za/files/docs/091017tas.pdf

CoGTA (Cooperative Governance and Traditional Affairs) (2013). *Intergovernmental Monitoring, Support and Intervention Bill*. Presented at the 5th National Municipal Managers Forum, on 30 April 2013. Retrieved on September 22, 2013 from http://www.salga.org.za/documents/download/app/webroot/assets/files/Document%20Storer/IMSI%20Bill%20presentation%205th%20national%20Municipal%20Managers%20Forum%20-%2030%20April%202013.ppt

CoJ (2009). ANNEXURE 1: Policy for Managing the Performance of Section 57 Employees of the City of Johannesburg August 2009. Johannesburg: CoJ. Retrieved on September 16, 2016 from http://www.joburg.org.za/images/stories/2013/June/final%20%20s57%20%20performance%20management%20policy%20%20doc%2013%20august%202009%20%20annexure%201doc.pdf

CoJ (City of Johannesburg Council) (2001). *Johannesburg: An African City in Change*. Cape Town: Zebra.

CoJ (City of Johannesburg Council) (2002). *Integrated Annual Report, 2001/2*. Johannesburg: CoJ.

CoJ (City of Johannesburg Council) (2007). *The Integrated Development Plan (IDP) of the City of Johannesburg*. Retrieved on June 10, 2013 from http://www.joburg-archive.co.za/2007/ pdfs/idp_2007/

CoJ (City of Johannesburg Council) (2012). *The City of Johannesburg's Monitoring and Evaluation Framework*. Retrieved on August 10, 2013 from http://www.joburg.org.za/images/stories/2013/June/monitoring%20and%20evaluation%20framework%20-%20annexure%203.pdf

CoJ (City of Johannesburg Council) (2013a). *Integrated Annual Report, 2012/13*. Johannesburg: CoJ.

CoJ (City of Johannesburg Council) (2014a). *Integrated Annual Report, 2013/14*. Johannesburg: CoJ.

CoJ (City of Johannesburg Council) (2015). *Report on the approval of development CoJ group fleet management policy framework*. A report presented to Corporate and Shared Services Committee on 10 February 2015.

CoJ (City of Johannesburg Council) (2016). *Integrated Annual Report, 2015/6*. Johannesburg: CoJ.

Comte-Sponville, A. (2005). *The Little Book of Philosophy*. (Translated by Frank Wyanne from the French) London: Vintage.

Corruption Watch (2014a). Corruption fuels poor service delivery. 03 February 2014. Retrieved on September 16, 2016 from http://www.corruptionwatch.org.za/corruption-fuels-poor-service-delivery/

Coser, L. (1977). *Masters of Sociological Thought: Ideas in Historical and Social Context*. New York: Harcourt Brace Jovanovich.

CP (City Power) (2010a). *City Power 2009/10 Annual Report*. Johannesburg: City Power.

CP (City Power) (2010b). *City Power 2009/10 Business Plan*. Johannesburg: City Power.

CP (City Power) (2011a). *City Power 2010/11 Annual Report*. Johannesburg: City Power.

CP (City Power) (2011b). *City Power 2010/11 Business Plan*. Johannesburg: City Power.

CP (City Power) (2012a). *City Power 2011/12 Annual Report*. Johannesburg: City Power.

CP (City Power) (2012b). *City Power 2011/12 Business Plan*. Johannesburg: City Power.

CP (City Power) (2013a). *City Power 2012/13 Annual Report*. Johannesburg: City Power.

CP (City Power) (2013b). *City Power 2012/13 Business Plan*. Johannesburg: City Power.

CP (City Power) (2013c). *City Power Quarterly Report, 2013 1st QR*. Johannesburg: City Power.

CP (City Power) (2014a). *City Power 2013/14 Annual Report*. Johannesburg: City Power.

CP (City Power) (2014b). *City Power 2014-2019 Business Plan*. Johannesburg: City Power.

CP (City Power) (2014c). *City Power Budget* (for budget year 2014/15) submitted to the National Treasury. Johannesburg: City Power.

CP (City Power) (2014d). *City Power Annual Financial Statements for the year ended June 30, 2014*. Johannesburg: City Power.

CP (City Power) (2014e). *Chairpersons Mid-Term Report to the MMC EISD Mid-year report 2013/2014.* Johannesburg: City Power.

CP (City Power) (2014f). *City Power Updated Business Plan 2014–2016*. Johannesburg: City Power.

CPD (Continuing Professional Development) (2012). Monitoring and Evaluation Framework for Continuing Professional Development. Retrieved on December 1, 2015 from www.unam.edu.na/wp-content/uploads/2014/11/CPD_ME_Framework.pdf

Creswell, J.W. (1998). *Qualitative inquiry and research design. Choosing among five traditions*. London: Sage Publications.

Crosby, P. B. (1979). *Quality is Free*. New York: McGraw-Hill.

CSIR (Council for Scientific and Industrial Research) (2007). *The State of Municipal Infrastructure in South Africa and its Operation and Maintenance: An Overview*. Retrieved on May 15, 2011 from http://www.cidb.org.za/Documents/KC/cidb_Publications/Ind_Reps_Other/ind_reps_state_of_municipal_infrastructure.pdf

David, F.R. (2005). *Strategic Management: Concepts and Cases* (10th Ed.). New York: Prentice Hall, Pearson Education International.

DBSA (2008). *Infrastructure Barometer*. Retrieved on May 15, 2012 from http://www.dbsa.org/feature/Pages/default.aspx

de Lange, D. (2012). Why municipalities fail. *IOL News*, 29 May 2012.

de León, J. C. V., Bogardi, J., Dannenmann, S. & Basher, R. (2006). *Early warning systems in the context of disaster risk management*. Retrieved on September 16, 2016 from www.rimd.org/advf/documentos/46fad12d0a62e5.38742613.pdf

de León, J. C. V., Bogardi, J., Dannenmann, S. & Basher, R. (2006). Early Warning Systems in the context of Disaster Risk Management. Retrieved September

20, 2016, from www.rimd.org/advf/documentos/46fad12d0a62e5.38742613.pdf

Deffner, V. & Hoerning, J. (2011). *Fragmentation as a Threat to Social Cohesion? A Conceptual Review and an Empirical Approach to Brazilian Cities*. Paper presented at the International RC21 Conference 2011. Session No. 15, Urban Disorder and Social Cohesion, in Amsterdam, 7-9 July 2011.

Deloitte (2012). *Local Government: Municipal turnaround and clean audit*. Retrieved on August 24, 2013 from http://www.deloitte.com/assets/Dcom-SouthAfrica/Local%20Assets/Documents/Local_goverment_turnaround_strategy_25July12.pdf

Denters, B. & Geurts, P. (1993). Aspects of political alienation: An exploration of their differential origins and effects. *Acta Politica*, 18 (4). pp. 445-469. Retrieved on September 16, 2016 from http://doc.utwente.nl/61039/1/Denters93aspects.pdf

Denzin, N. K. (1978). *The research act: A theoretical introduction to sociological methods.* New York: McGraw-Hill.

Devarajan, S. & Reinikka, R. (2004). Making Service Work for Poor People. *Journal of African Economies*, 13(1), 1142-1166. Retrieved on May 15, 2012 from http://siteresources.worldbank.org/INTWDR2004/Resources/17976_ReinikkaShantaInitialFramework.pdf.

Dlamini, P. (2015). City of Johannesburg budgets for R4bn for consultants. *Business Day Live*, 26 May 2015. Retrieved on September 16, 2016 from http://www.bdlive.co.za/national/2015/05/26/city-of-johannesburg-budgets-for-r4bn-for-consultants

DPLG (Department of Provincial and Local Government) (2001). *Introduction to Performance Management for Local Government in South Africa*. Pretoria: Norad and the Department of International Development (DFID).

DPLG (Department of Provincial and Local Government) (2002). Annual Report on the Equitable Share and Other Transfers to Local Government for the 2000/2001 Financial Year.

DPLG (Department of Provincial and Local Government) (2003). *The Department of Provincial and Local Government Manual, 2003*. Pretoria: Government Printer.

DPLG (Department of Provincial and Local Government) (2005). *Having your say: A handbook for Ward Committees*. Pretoria: Department of Provincial and Local Government.

DPME (Department of Performance Monitoring and Evaluation) (2011) *Strategic Plan 2011/12 – 2015/16*. Pretoria: Department of Performance Monitoring and Evaluation.

DPME (Department of Performance Monitoring and Evaluation) (2012). *Municipal Assessment Tool Guideline 2012*. Pretoria: Department of Performance Monitoring and Evaluation.

DPME (Department of Performance Monitoring and Evaluation) (2013). *Municipal Assessment Tool and Summary Outcomes Report*. Pretoria: Department of Performance Monitoring and Evaluation.

DPME (Department of Planning, Monitoring and Evaluation) (2014). *Performance Monitoring and Evaluation: Principles and Approach* (Discussion Document). Pretoria: The Presidency, RSA.

DPSA (Department of Public Service and Administration) (1997). *White Paper on Transforming Public Service Delivery (WPTPSC)*. Pretoria: Department of Public Service and Administration.

DPSA (Department of Public Service and Administration) (2003). *Service Delivery Review: A Learning Journal for Public Service Manager*. Pretoria: Department of Public Service and Administration

DPSA (Department of Public Service and Administration) (2010). *Annual Report 2009/10*. Retrieved on July 29, 2011 from www.dpsa.gov.za/dpsa2g/documents/annualreports/annualreport2010.pdf

Durkheim, E. (1951). *Suicide: A Study in Sociology*. J. A. Spaulding and C. Simpson (trans.). New York: The Free Press.

DWAF (Department of Water Affairs and Forestry) (2006). Department of Water Affairs and Forestry's early warning system report for October 2004. Pretoria: DWAF.

Economic Commission for Africa (ECA) (2003). *Public Sector Management Reforms in Africa: Lessons Learned*. Development Policy Management Division, Ethiopia.

Economist, the (2010). Striking facts: Working days lost due to labour disputes. *The Economist*, Sep 6th 2010. Retrieved on April 15, 2011 from http://www.economist.com/ node/16976532

Elcock, H. (1994). *Local Government: Policy and Management in Local Authorities* (3rd Ed). London: Routledge.

Emnambithi – Ladysmith Municipality (2012). *Performance Management Policy Framework Draft 2012/2013*. Retrieved on January 25, 2014 from http://www.ladysmith.co.za/ docs/perform/2013/pms.pdf

Engela, R. & Ajam, T. (2010). *Implementing a Government-wide Monitoring and Evaluation System in South Africa*. Washington, DC: The World Bank. Retrieved on April 01, 2012 from http://siteresources.worldbank.org/EXTEVACAPDEV/Resources/ ecd_wp_21_south_africa.pdf

Essop, R. (2015). Zuma: We need experienced citizens to lead municipalities. *Eyewitness News*, 26 November 2015. Retrieved on November 27, 2015, from http://ewn.co.za/2015/11/26/Zuma-looks-to-experienced-citizens-to-lead-municipalities

FAA (Federal Aviation Administration, U.S.A) (2009). *Risk Management Handbook*. Washington, D.C.: U.S. Department of Transportation.

Farahbod, F., Azadehdel, M. R., Chegini, M. G. & Ashraf, A. N. (2012). Work Alienation Historical Backgrounds, Concepts, Reasons and Effects. *Journal of Basic and Applied Scientific Research*, 2(8)8408-8415, 2012. Retrieved September 12, 2016, from http://www.textroad.com/pdf/JBASR/J.%20Basic.%20Appl.%20Sci.%20Res.,%202(8)8408-8415,%202012.pdf

Fei, K. (2015). Proposing solutions to the City's billing problems. *Rosebank Killarney Gazette*, May 8, 2015. Retrieved on June 20, 2015 from http://rosebankkillarneygazette.co.za/157635/proposing-solutions-to-the-citys-billing-problems-or-engaging-with-the-city-on-its-billing-problems/

Finifter, A. W. (1970). Dimensions of Political Alienation. *American Political Science Review*, 64, p. 389-410.

Finkelstein, S. (2004). *Why smart executive fail: And what you can learn from their mistakes*. New York: Portfolio.

Fischhoff, B. (2003) Hindsight ≠ foresight: the effect of outcome knowledge on judgment under uncertainty. *Qual Saf Health Care* 2003, 12, 304–312

Fiszbein, A., (2005). Introduction. In A. Fiszbein (Ed), *Citizens, Politicians and Providers: The Latin American Experience with Service Delivery Reform* (pp. 1-6). Washington, DC: World Bank.

Fornell, C. (1992). A national customer satisfaction barometer: The Swedish experience. *Journal of Marketing*, 56 (1), 6-21.

Fox, W., Schwella, E. & Wissink, H. (1991). *Public Management*. Kenwyn: Juta.

Frances Baard District Municipality (2006). *Upgraded Performance Management Policy.* Retrieved on March 29, 2016 from http://francesbaard.gov.za/wp-content/uploads/2015/03/UPGRADED-PMS-POLICY-21-Nov-2006.pdf

Fraser-Moleketi, G. & Saloojee, A. (2008). *South Africa's Public Service: Evolution and Future Perspective. New World, New Society, New Administration*. A

speech presented by Prof Anver Saloojee, the Presidential Special Advisor of Government of South Africa, at the Public Service Commission of Canada on its centenary celebrations, on August 25, 2008. Retrieved on June 10, 2011 from www.ipac.ca/2008/docs/presentation/2508PM-Anver-Saloojee.pdf

Fraser-Moleketi. G. J. (2006). *Public Service Reform in South Africa. An Overview of Selected Case Studies from 1994-2004.* M Admin dissertation submitted in the fulfilment of requirements for a M. Admin in Public Administration, University of Pretoria. Retrieved on July 21, 2011 from http://upetd.up.ac.za/thesis/available/etd-09062006-172107/

Freeman, R.E. (1984). *Strategic Management: A Stakeholder Approach*. Boston, MA: Pitman Publishing.

Freund, B. (2007). South Africa as a developmental state? *Africanus, Journal of Developmental Studies*, 37(2).

Fromm, E. (1955). *The Sane Society*. New York: Rinehart.

Funnell, S.C. & Rogers, P.J. (2011), *Purposeful Program Theory: Effective use of theories of change and logic models*. San Francisco: Jossey-Bass.

Gaster, L. (1995) *Quality in Public Services: Manages' Choices.* Buckingham: Open University Press.

GCRO (Gauteng City-Region Observatory) (2014). *City Benchmarking: Quality of Life Survey 2013*. Retrieved on July 20, 2015, from http://www.gcro.ac.za/sites/default/files/editor_uploads/QoL2013_launch/gol_2013_baseline_city_report_presentation_launch_14_august_2014.pdf

Gervais-Lambony, P. (2006). Space matters: Identity, justice and democracy at the ward level in South African cities. Transformation: Critical Perspectives on Southern Africa, 66/67, 83-97.

Geyer, F. & Heinz, W. R. (1992). *Alienation, Society, and the Individual*. New Brunswick, NJ: Transaction.

Geyer, F. (1996). Introduction: Alienation, Ethnicity, and Postmodernism. In F. Geyer (ed.) *Alienation, Ethnicity, and Postmodernism*. Westport, CT: Greenwood.

GFOA (Government Finance Officers Association, of USA and Canada) (2007). *Performance Management: Using performance measurement for decision making*. Retrieved from May 20, 2013 on http://www.gfoa.org/downloads/budgetperfmanagement.pdf

Ghobadian, A., Viney, H., & Redwood, J. (2009). Explaining the unintended consequences of public sector reform. *Management Decision*, Vol. 47 No. 10, 2009. pp. 1514-1535. Retrieved on May 12, 2011 from www.emeraldinsight.com/0025-1747.htm

Gibb, M. & Goldman, I. (2006). *A framework for monitoring and evaluating Local Economic Development.* Briefing Number 2 of the LED Dissemination Project funded by CWC*I*. Retrieved on May 18, 2013 from http://www.khanya-aicdd.org/publications

Gilad, B. (2004). *Early Warning: Using Competitive Intelligence to Anticipate Market Shifts, Control Risk, and Create Powerful Strategies*. New York: American Management Association (AMACOM).

Glantz, M. H. (2004). *Usable Science 8: Early Warning Systems: Do's and Don'ts*. A report of a Workshop organised in Shanghai, China, from 20-23 October 2003 on the topic of "Early Warning Systems: Do's and Don'ts." Retrieved on June 20, 2011 from http://ccb.colorado.edu/warning/report.html

Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report*, 8(4), December 2003, 597-607. Retrieved from January 25, 2014 from http://www.nova.edu/ssss/QR/QR8-4/golafshani.pdf

Goldstein, M. (2008). *Are you being served? Introduction: Why Measure Service Delivery?* Washington, D.C.: World Bank.

Good Governance Learning Network (GGLN) (2008). Local Democracy in Action: A Civil Society Perspective on Local Governance in South Africa. Retrieved on September 16, 2016 from http://ggln.org.za/publications/state-of-local-governance-research-project/Local%20Democracy%20in%20Action.pdf

Goodman, G. S. (2000). *Monitoring, measuring, and managing customer service*. San Francisco: Jossey-Bass.

Gordillo, G. & Anderson, K. (2004). From policy lessons to policy actions: motivation to take evaluation seriously. *Public Administration & Development*, 24(4), 305–320. Retrieved from January 25, 2014 from http://onlinelibrary.wiley.com/doi/10.1002/pad.325/pdf

Görgens, M & Kusek, J. Z. (2009). *Making Monitoring and Evaluation Systems Work: A Capacity Development Toolkit*. Washington DC: World Bank. Retrieved on December 1, 2015 from https://openknowledge.worldbank.org/handle/10986/2702

Goria, S. (2013). The search for and identification of routine signals as a contribution to creative competitive intelligence. *Intelligences Journal*, 3. Retrieved on June 10, 2015 from http://lodel.irevues.inist.fr/isj/?id=377

Gosling, L. (2010). *Monitoring and evaluation: How To guide*. Retrieved January 21, 2016, from www.dochas.ie/sites/default/files/BOND_M%26E_Guide_0.pdf

Govender, K. (2006). *Capacity and organisation of the state to accelerate delivery: Successes, challenges and the way forward, a national perspective*. Paper

presented at the fourth annual GMDP conference: Gauteng Accelerating Delivery Towards Vision 2014, 16-17 March 2006.

Grant, R. (2008). *Contemporary Strategic Analysis* (6th Ed.) Oxford: Blackwells.

Greene, R. (2012). *Mastery*. New York: Penguin.

Gronroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing*, 18(4), 36-44.

Grootes, S. (2011). COSATU discusses resolution to back mine nationalisation. *Eyewitness News* (30 June 2011) Retrieved on September 15, 2011 from http://www.ewn.co.za/ 2011/06/30/Cosatu-discusses-resolution-to-back-mine-nationalisation

Gržinić, J. (2007). *Concepts of service quality measurement in hotel industry*. Retrieved on March 11, 2012 from www.hrcak.srce.hr/file/24337

Guba, E. G., & Lincoln, Y. S. (1981). *Effective evaluation: Improving the usefulness of evaluation results through responsive and naturalistic approaches*. San Francisco, CA: Jossey-Bass.

Guba, E. G., & Lincoln, Y. S. (1982). Epistemological and methodological bases of naturalistic inquiry. *Educational Communication and Technology. Journal* 30 (4), 233-252.

Guest, G., MacQueen, K. M. & Namey, E. E. (2012). *Introduction to Applied Thematic Analysis*. Thousand Oaks, CA: SAGE.

Gumede, W. (2015). *Lessons in China's reform of its state-owned enterprises*. A conversation at Wits School of Governance, on 19 August 2015, Wednesday.

Hamilton, R. (1999). *Natural disaster reduction in the 21st century*. In J. Ingleton (ed.), Natural Disaster Management. Leicester, UK: Tudor Rose Publishers, p. 304-307.

Hartley, W. (2010). R2 Billion Left Unspent by Chaotic Town Councils. *Business Day*. 4 Oct 2010. Retrieved January 20, 2014, from http://allafrica.com/stories/201010040575.html

Hatry, H. P. (1978). The Statusa of Productivity Measurement in the Public Sector. *Public Administration Review*, 38(1), 28-33.

Havenga, B. (2002). *The Restructuring of Local Government with Specific Reference to the City of Tshwane*. Unpublished PhD thesis submitted in partial fulfilment of the requirements of the degree of Doctor Philosophiae (Public Administration) to the Faculty Humanity, University of Pretoria, South Africa. Retrieved January 15, 2014, from http://upetd.up.ac.za/thesis/submitted/etd-06222005-135528/unrestricted/00front.pdf

Hemson, D. (2007). *Can participation make a difference? Prospects for people's participation in planning.* In Buccus, I and Hicks, J. (Eds). *Critical Dialogue: Public participation in review*, 3 (1), pp. 9-15. Durban: Centre for Public Participation.

Heyns, F. (2011). Capacity remains big municipal challenge. *Service Publication*, 29 September 2011. Retrieved on April 23, 2012 from http://www.servicepublication.co.za/index.php/magazine/other/385-capacity-remains-big-municipal-challenge

Hicks, J. (2006). *Assessing the effectiveness of community based involvement*. In Buccus, I, Hicks, J. and T Ngwenya (Eds). *Critical Dialogue: Public participation in review*, Volume 2 No. 1. Durban: Centre for Public Participation. Retrieved September 10, 2016, from http://www.pikitup.co.za/wp-content/uploads/2015/08/Pikitup-Johnannesburg-SOC-LTD-Annual-Report-2014-2015.pdf

Higher Learning Reporter (2009). Breaking Provincial Boundaries to Improve Service Delivery. *Mail & Guardian*, Jan 23, 2009. Retrieved on June 12, 2011 from http://mg.co.za/article/2009-06-23-breaking-provincial-boundries-to-improve-service-delivery

Hiltunen, E. (2006). Was It a Wild Card or just our Blindness to Gradual Change? *Journal of Future Studies*, Nov. 2006, 11 (2), 61-74.

Hiltunen, E. (2007). The Futures Window – A Medium for Presenting Visual Weak Signals to Trigger Employees' Futures Thinking in Organizations. *HSE Publications*, working paper- w-423, 2007

Hiltunen, E. (2008a). Good Sources for Weak Signals: A Global Study of Where Futurists Look For Weak Signals, *Journal of Future Studies*, May 2008, 12(4):21-44.

Hiltunen, E. (2008b). The Future Sign and Its Three Dimensions. *Futures*, 40(3), April 2008, 247-260.

Hiltunen, E. (2010) Forecasting the future through 'weak signals'. *Engineering and Technology Magazine*, 5(9), 14 June 2010. http://eandt.theiet.org/magazine/2010/09/weak-signals.cfm

Hirschfeld, R. R., & Feild, H. S. (2000). Work centrality and work alienation: distinct aspects of a general commitment to work. *Journal of Organizational Behavior, 21*, 789-800.

Hiskey, J. T. (2006). *Principals, Agents, and Decentralized Democratic Development: A Conceptual Framework for Democratic Local Governance*. Retrieved on March 10, 2012 from http://www.frp2.org/english/Portals/0/Library/Inter-

Governmental/ Principals%20Agents%20and%20Decentralized%20Democratic%20Development %20A%20conceptual%20framework%20for%20democratic.pdf

Hodgetts, R. (1979). *Management: Theory, Process and Practice*. Philadelphia: W. B. Saunders.

Hodson, R. (1996). Dignity in the Workplace under Participative Management: Alienation and Freedom Revisited. *American Sociological Review 61(5): 719-38.*

Holloway , I. Todres , L. (2003). The status of method: Flexibility, consistency and coherence. *Qualitative Research*, Vol. 3, pp. 345-357. Retrieved on December 2, 2015 from http://qrj.sagepub.com/content/3/3/345.full.pdf

Holt, R., Sawicki, S. & Sloan, J. (2010). *A Theoretical Review of Skill Shortages and Skill Needs*. Journal or web address

Hood, C. & Jackson, M. (1991). *Administrative Argument.* Aldershot, U.K.: Dartmouth Publishing.

Hood, C. (1991). A Public Administration for all seasons. *Public Administration,* 69 (1), 3-19.

Horowitz, I. L. (1966). On alienation and the social order. *Philosophy and Phenomenological Research, 27*(2), 230-237.

HSRC (Human Science Research Council) (2009). *Ten year review of local Government*. Retrieved January 20, 2014, from http://www.hsrc.ac.za/ en/research-outputs/ view/2437

HSRC (Human Sciences Research Council) (2005). *National Study of Service Delivery in District Management Areas* (DMAs). Pretoria: Human Sciences Research Council.

Idasa (Institute for Democracy in Africa) (2008). *Demand for Skills in Local Government*. Pretoria: Idasa. Retrieved on March 19, 2012 from http://www.idasa.org/our_products/resources/output/ demand_for_skills_in_local/

Idasa (Institute for Democracy in Africa) (2010a). Local Government Barometer (2010 May). Pretoria: Idasa. Retrieved January 20, 2014, from http://www.ansa-africa.net/uploads/documents/publications/LGU_barometer_May2010.pdf

Idasa (Institute for Democracy in Africa) (2010b). *The State of Local Government and Service Delivery in South Africa: Issues, challenges and solutions*. Paper submitted to the portfolio committee on Co-operative Governance and

Traditional Affairs (CoGTA) for public hearings: Co-ordinated Service Delivery. Pretoria: Idasa.

Idasa (Institute for Democracy in Africa) (2011). *The State of Local Governance from a Citizen Perspective*. Pretoria: Idasa.

Ismail, Z. (2015). Rhodes statue protest is more about alienation. *University World News*, 03 April 2015 Issue No: 361. Retrieved on September 16, 2016 from http://www.universityworldnews.com/article.php?story=20150402070259840

Jackson, B. M. & Hlahla, M. (1999). South Africa's Infrastructure Service Delivery needs: The role and challenge for public–private partnership. *Development Southern Africa,* 16(4), 1-14. Retrieved on January 11, 2012 from http://www.tandfonline.com/doi/pdf/10.1080/03768359908440101

Johan, J. (2013). *Public financial performance management in South Africa: A conceptual approach*. Unpublished PhD thesis submitted in partial fulfilment of the requirements of the degree of Philosophiae Doctor (Public Affairs) to the Faculty of Economic and Management Sciences, University of Pretoria, South Africa. Retrieved January 15, 2014, from http://upetd.up.ac.za/thesis/available/etd-05182013-110931/

Johnson, R. B. (1997). Examining the validity structure of qualitative research. In *Education*, Winter 1997; 118(2), 282-292. Retrieved on January 25, 2014 from http://www.dralessandro.com/subpages/PDFfiles/Validity%20Structure.pdf

Johnston, R. (1999). Service operations management: Return to roots. *International Journal of Operations & Production Management*, 19 (2). pp. 104-124. Retrieved on November 23, 2012 from http://www2.ifm.eng.cam.ac.uk/ssme/references/ Johnston_ref1_cambridgessme07.pdf

Jolobe, Z. (2014). *The Crisis of Democratic Representation in Local Government*. Retrieved September 25, 2016, from http://wiser.wits.ac.za/system/files/documents/Jolobe2014-CrisisLocalGovernment.pdf

Jonas, I. R. (2011). *The effectiveness of a performance management system in enhancing service delivery: The case of Maquassi Hills Local Municipality / Itumeleng Ronald Jonas*. Unpublished Mater of Development and Management thesis submitted to North-West University. Retrieved on September 19, 2013 from http://dspace.nwu.ac.za/handle/10394/8404

Joppe, L. R. (2000). *Research method outcome result*. London: Lithoscript.

Josie, J. (2008). The challenges of Funding Municipal Infrastructure. *Local Government Bulletin*. 10(1), 23-24. Retrieved on October 1, 2013 from

http://reference.sabinet.co.za/webx/access/electronic_journals/lgbul/lgbul_v10_n1_a10.pdf

Joubert, P. & Calldo, F. (2008). *The current position of affirmative action*. Retrieved on January 19, 2012 from http://navorsing.co.za/wp-content/uploads/2010/05/Thecurrentpositionofaffirmativeaction080919Rapport.pdf

Joubert, P. (2009) *Information for the debate on delivery under the Zuma administration*. For the debate hosted by SACCI on the 16th of October 2009. Retrieved on January 19, 2012 from http://www.solidarityresearch.co.za/wp-content/uploads/2010/07/1-09-10-15-SACCI-debate-on-delivery-under-the-Zuma-administration.pdf

JW (2015). Integrated Annual Report 2014/15. Retrieved September 25, 2016, from http://www.joburg.org.za/images/stories/2016/Jan/Pdf/JW_Signed%20IR.pdf

JW (Johannesburg Water) (2010a). *Annual Report 2009/10*. Johannesburg: Johannesburg Water.

JW (Johannesburg Water) (2010b). *Business Plan 2009/10*. Johannesburg: Johannesburg Water.

JW (Johannesburg Water) (2011a). *Annual Report 2010/11*. Johannesburg: Johannesburg Water.

JW (Johannesburg Water) (2011b). *Business Plan 2010/11*. Johannesburg: Johannesburg Water.

JW (Johannesburg Water) (2012a). *Annual Report 2011/12*. Johannesburg: Johannesburg Water.

JW (Johannesburg Water) (2012b). *Business Plan 2011/12*. Johannesburg: Johannesburg Water.

JW (Johannesburg Water) (2013a). *Annual Report 2012/13*. Johannesburg: Johannesburg Water.

JW (Johannesburg Water) (2013b). *Preventative Sewer Maintenance Programme*. Retrieved February 10, 2014, from http://johannesburgwater.co.za.winhost.wa.co.za/publications/12500.aspx?id=68

JW (Johannesburg Water) (2014a). *Annual Report 2013/14*. Johannesburg: Johannesburg Water.

JW (Johannesburg Water) (2014b). *Budget (for budget year 2014/15)*. Submitted to the National Treasury. Retrieved on June 20, 2015 from http://mfma.treasury.gov.za/Documents/Forms/AllItems.aspx?RootFolder=%2fDocuments%2f08.%20Municipal%20entities%2f2014-

15%2f01.%20Metros%2fJHB%20City%20of%20Johannesburg&FolderCTID=&View={84CA1A01-EF8A-4DE0-8DC4-47D223CB5867}

Kaivo-oja, J. (2012). Weak signals analysis, knowledge management theory and systemic socio-cultural transitions, *Futures* 44, 206–217.

Kanungo, R. N. (1979). The concepts of alienation and involvement revisited. *Psychological Bulletin, 86*(1), 119-138.

Kaplan, R. S. & Norton, D. P. (1992). The Balanced Scorecard: Measures That Drive Performance. *Harvard Business Review* (January–February): 71–79.

Karodia, F. (2010). *Public service delivery in an era of governance: The case of water services in the city of Johannesburg*. Unpublished MA thesis submitted to University of Witwatersrand, Johannesburg.

Kernaghan, K. (2010). *The Innovations in Municipal Service Delivery*. Retrieved on June 19, 2012 from http://www.iccs-isac.org/en/msd/

Khumalo, G., Ntlokonkulu, L., & Rapoo, T. (2003). *Alternative Service Delivery Arrangements at Municipal Level in South Africa: Assessing the Impact of Electricity Service Delivery and Customer Satisfaction in Johannesburg*. Retrieved on June 12, 2011 from http://www.cps.org.za/cps%20pdf/RR102.pdf

Kigotho, W. (2014). Universities must share blame for critical skills shortage. *University World News*, Issue No: 128, 28 March 2014. Retrieved on November 27, 2015, from http://www.universityworldnews.com/article.php?story=20140327191835351

Kistler, E. (2002). *Backup of Marx, Durkheim, Weber and Alienation*. Retrieved on February 14, 2015 from http://www.csudh.edu/dearhabermas/theory06.htm

Koelble, T. A. & Siddle, A. (2013). Why decentralization in South Africa has failed. *Governance: An International Journal of Policy, Administration, and Institutions, 26(3), July 2013, 343–346.* Retrieved on August 5, 2013 from http://onlinelibrary.wiley.com/doi/10.1111/gove.12022/pdf

Kon, I. S. (1969). *The Concept of Alienation in Modern Sociology*. Retrieved on April 14, 2015 from http://sexology.narod.ru/english/igor_kon001.html

Korhonen, M. (2014). *Tacit Knowledge and Weak Signals In Organizational Learning – Managing Knowledge to Create Sustainable Competitive Advantage Case Company Ltd*. MBA dissertation submitted for a Master`s degree in International Business Management to Turku University of Applied Sciences in 2014.

Kothari, M. (2010). *Early Warning Signs in Software Projects*. Unpublished Master of Computer and Information Sciences dissertation submitted to Auckland

University of Technology in partial fulfillment of the requirements for the degree of Master of Computer and Information Sciences (MCIS) in 2010.

Krugell, W., Otto, H. & van der Merwe, J. (2010). Local Municipalities and Progress with the Delivery of Basic Services in South Africa. *South African Journal of Economics*, Vol. 78:3 September 2010, pp. 310-323.

Kusek, J. Z. & Rist, R. C. (2004). *Ten Steps to a Results-Based Monitoring and Evaluation System*. Washington, D.C.: World Bank.

Kuusi, O. & Hiltunen, E. (2011). The signification process of the future sign. *Journal of Future Studies*. Vol. 16, No. 1, pp. 47-66.

Lane, R. E. (1959). *Political Life: Why and how people get involved in politics*. Chicago: Markham.

Langa, L. & von Holdt, K. (2012). *Insurgent citizenship, class formation and the dual nature of a community protest: a case study of Kungcatsha*. Retrieved on August 21, 2013 from http://wiser.wits.ac.za/system/files/seminar/Langa-vonHoldt2012.pdf

Layman, T. (2003). *Intergovernmental Relations and Service Delivery in South Africa a Ten Year Review Commissioned by the Presidency*. Retrieved on December 1, 2015 from www.sarpn.org/documents/d0000875/docs/Layman,%20Tim.pdf

Lee, K. Y. (2000). *From thirds world to first: The Singapore Story (1965-2000)*. New York: HarperCollins.

Leedy, P. D. (1997). *Practical Research: Planning and Design.* (6th ed.) New Jersey: Prentice-Hall.

Leedy, P. D., & Ormrod, J. E (2001). *Practical research: Planning and design* (7th ed.). Thousand Oaks: SAGE.

Leedy, P. D., & Ormrod, J. E. (2005). *Practical research: Planning and design* (8th ed.). Upper Saddle River, NJ: Prentice Hall.

Leibig, K., Bahrinipour, M., Fuesers, L., Knodler, B., Schonhofen, C. & Stein, M. (2008). *Municipal borrowing for infrastructure service delivery in South Africa – A critical review*. Retrieved on May 15, 2013 from http://www.die-gdi.de/CMS-Homepage/openwebcms3.nsf/(ynDK_contentByKey)/ANES-7FJGG2/$FILE/Studies%2034.pdf

Leidecker, J. K., & Bruno, A. V. (1987). Critical Success Factor Analysis and the Strategy Development Process. In W. R. King & D. Cleland (Eds.), *Strategic Planning and Management Handbook*, (pp. 333–351). New York: Van Nostrand Reinhold Co.

Lipset, S. M. & Raab, E. (1978). *The Politics of Unreason: Right-Wing Extremism in America, 1790-1977* (Second edition). Chicago: University of Chicago Press.

Locke (1694) *Two Treatises of Government*. London: Black Swan.

Loveridge, D. L. (2011). *Theories of Change: Monitoring and Evaluation Capacity Development in the Government of Tanzania*. A thesis submitted to the Centre of Program Evaluation, Melbourne Graduate School of Education, University of Melbourne, Australia, in February 2011, in partial fulfilment of the requirements of the degree of Doctor of Education (with coursework component).

Lu, F. (2014) The Chinese Communist Deployment and Management of Cadres And Agents From 1946 To 1957. Retrieved September 25, 2016, from http://china.usc.edu/chinese-communist-deployment-and-management-cadres-and-agents-1946-1957-fujian-province-china

Lund, T. (2013). During Zuma's term: municipal finances vanish. *Financial Mail* (On-line), August 22, 2013. Retrieved on April 14, 2014 from http://www.financialmail.co.za/fm/Features/2013/08/22/during-zuma-s-term-municipal-finances-vanish

Lund, T. (2015). Municipalities: Ignoring the warnings. *Financial Mail* (Online), 07 May 2015

Mabala, M. J. (2006). *Leadership perspectives on service delivery in the South Africa Public Service: A critical overview of the public financial management systems from 1994 to 2004*. A thesis submitted in partial fulfilment of the requirements for the degree Doctor Philosophiae in the Faculty of Economic and Management Sciences, to the School of Public Management and Administration, University of Pretoria, in September 2006. Retrieved on March 21, 2016 from http://repository.up.ac.za/handle/2263/26841

Mackay, K. (2007). *How to Build M&E Systems to Support Better Government*. Washington DC: Independent Evaluation Group, The World Bank. Retrieved on December 1, 2015 from www.worldbank.org/ieg/ecd/docs/How_to_build_ME_gov.pdf

Maharaj, M. (2009). Interview with Mac Maharaj. *Sunday Times* May 17, 2009, p. 9.

Makananisa, T. D. (2011). *An Investigation into the State of Municipal-Service Delivery: A Case Study of Vhembe District*. Unpublished Master of Management dissertation submitted to the Graduate School of Public and Development Management (P&DM), University of Witwatersrand, June 2011. Retrieved on June 7, 2013 from http://wiredspace.wits.ac.za/handle/10539/10856

Makhafola, G. (2012). Municipality Denies Claims that Water is of a Poor Quality. *The New Age*, Tuesday, 14 February 2012. P.9.

Makridakis, S., & Heau, D. (1987). The Evolution of Strategic Planning and Management. In W. R. King, & D. I. Cleland (Eds.). *Strategic Planning and Management Handbook* (pp. 3-20). New York: Van Nostrand Reinhold.

Makwarela, S. T. (2010). *Governance challenges in the delivery of services in Alexandra*. An unpublished research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the Degree of Masters of Management in the field of Public and Development Management, June 2010. Retrieved on January 25, 2014 from http://137.214.16.100/handle/10386/134

Malefane S, K. T. (2010). Role of local government in mitigating the impact of recession. *Journal of Public Administration*, 45(1.1): 133-144.

Malefane, S. R. (2011). The strategic position and intergovernmental relations role of South Africa's local economic development agencies. In *Journal of Public Administration*, 46(3): 977–993.

Mandel, E. (1970). The Causes of Alienation. *International Socialist Review*, 31(3), 19-23. Retrieved on May 15, 2015 from http://www.angelfire.com/pr/red/mandel/causes_of_alienation.htm

Manning, N. (2003*). Public Management Reforms in Developing and Transitional Countries*. Washington, D.C.: Public Sector Group, The World Bank.

Marchant, M. (2015). *Party Funding Secrecy and Local Government Concerns*. Discussion paper submitted for discussion to the Right2Know. Retrieved on September 16, 2016 from www.r2k.org.za/wp-content/uploads/Party-Funding-and-Local-Government-Marchant.docx

Marshall, C. & Rossman, G. B. (1989). *Design qualitative research*. Newbury Park, California: Sage.

Marx, K. (1963). *Early Writings*. Trans. and ed. T. B. Bottomore. London: C. A. Watts.

Mashamaite, K. & Madzivhandila, A. (2014) Strengthening Community Participation in the Integrated Development Planning: Process for Effective Public Service Delivery in the Rural Limpopo Province. *Mediterranean Journal of Social Sciences*. 5 (25), pp. 225-230, November 2014. Retrieved on September 16, 2016 from http://www.mcser.org/journal/index.php/mjss/article/viewFile/5366/5179

Masiyiwa, S. (2016). *The Eagle in a Storm (Part 3): Protect the root of your business*. (The Afterthough 5). His Facebook post, on 3 February 2016.

Mataboge, M. & du Plessis. C. (2012). Money: SA's great divide. *City Press*, July 8, 2014. Retrieved on July 20, 2015, from http://www.news24.com/SouthAfrica/News/Money-SAs-great-divide-20120708

Matatiele Municipality (2012). *Framework for Institutional Performance Management, 2012-2017*. Retrieved on January 25, 2014 from http://matatiele.gov.za/download/Performance%20Reports/MLM%20Final%20%20PMS%20Framework.pdf

Mateus, A. D., Allen-Ile, C. & Iwu, C. G. (2014). Skills Shortage in South Africa: Interrogating the Repertoire of Discussions. *Mediterranean Journal of Social Sciences*, 5(6), April 2014.

Mathoho (2011). Service Delivery Failures: A Threat to local Government Credibility. *The Transformer* April/May/June 2011. Retrieved April 15, 2013, from http://www.afesis.org.za/Local-Governance-Articles/service-delivery-failures-a-threat-to-local-government-credibility-by-malachia-mathoho

Mazibuko (2013) MPA thesis_impact of municipal billing system on revenue collection in selected SA cities. Submitted to the University of Pretoria. http://repository.up.ac.za/dspace/bitstream/handle/2263/41277/Mazibuko_Impact_2014.pdf?sequence=3&isAllowed=y

Mbala, C. B. (2016). *The implementation of the balanced scorecard for service delivery performance: The case of Gauteng Metropolitan Municipalities*. Master dissertation submitted for the degree of Management Accounting to the University of South Africa, Pretoria. Retrieved on September 16, 2016 from http://uir.unisa.ac.za/handle/10500/21035

Mbeki, T. (2004). Address of President Thabo Mbeki, to the First Joint Sitting of the Third Democratic Parliament, Cape Town on 21 May 2004. Retrieved April 15, 2015, from http://www.gov.za/address-president-south-africa-thabo-mbeki-first-joint-sitting-third-democratic-parliament-cape-town

Mbeki, T. (2006). *Check against Delivery*. State of the Nation Address of the President of South Africa, Thabo Mbeki: Joint Sitting of Parliament, on 3 February 2006. Retrieved on 20 July 2011 from http://www.info.gov.za/speeches/2006/ 06020310531001.htm

McCoy, K. L., Ngari, P. N. & Krumpe, E. E. (2005). *Building monitoring, evaluation and reporting systems for HIV/AIDS programs*. Washington D.C.: PACT.

McGregor, D. (1960). *The Human Side of Enterprise*. New York: McGrawHill.

McKinley, D. T. (2014). The Real Story of South Africa's National Elections. *The South African Civil Society Information Service (SACSIS) (online)*, 11 May

2014. Retrieved September 25, 2016, from http://www.sacsis.org.za/site/article/2001

Mcloughlin, C. & Batley, R. (2012). *The politics of what works in service delivery: An evidence-based review*. Retrieved on February 27, 2012 from http://www.dfid.gov.uk/r4d/PDF/Outputs/ESID/esid_wp_06_mcloughlin-batley.pdf

Memela,S., Mautjane, B., Nzo, T. & van Hoof, P. (Eds.) (2008). *The State of Local Governance in South Africa: What does the Local Governance Barometer tell us?* Retrieved on February 20, 2011 from http://www.idasa.org/media/uploads/ outputs/files/localgovtbook.pdf

Mercy Corps and Practical Action (2010). *Establishing Community Based EWS: Practitioner's Handbook*. Lalitpur, Nepal: Mercy Corps and Practical Action. Retrieved on August 12, 2015, http://www.preventionweb.net/english/professional/trainings-events/edu-materials/v.php?id=19893

Merriam, S. B. (1998). *Qualitative research and case study application in education*. San Francisco: Jossey-Bass.

Mhone, G. (2003). *The Challenges of Governance, Public Sector Reform and Public Administration in Africa*. A paper presented at workshop on Building an African Governance and Public Administration Support and Research Agenda, Johannesburg, 17 February 2003.

Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis: An expanded source book*. (2nd Ed.). New Bury Park, CA: Sage.

Miller, J. (1975). Isolation in organizations: Alienation from authority, control and expressive relations. *Administrative Science Quarterly, 20*, 260-271.

Miller, K. D., & Waller, H. G. (2003). Scenarios, Real Options and Integrated Risk Management. *Long Range Planning*, 36(1), 93 - 107.

Mintzberg, H. (1994). The Fall and Rise of Strategic Planning. *Harvard Business Review*, 107-114.

Mogale City Local Municipality (2010). *Draft Integrated Performance Management Framework and Policy*. Retrieved on March 29, 2016 from http://www.mogalecity.gov.za/content/pdfs/key_docs/annexured_pms_policy_framework.pdf

Mohamed, S. E. (2006). From ideas to practice: The involvement of informal settlement communities in policy-making at city level in South Africa. *Sociology in Transition*, 37 (1). pp. 35-47

Molatlhwa, O. & Smillie, S. (2015) Joburg loses R1bn of water every year. *Times Live* (online), 13 May, 2015. Retrieved September 25, 2016, from

http://www.timeslive.co.za/thetimes/2015/05/13/joburg-loses-r1bn-of-water-every-year

Molatlhwa, O. (2015). City Power suffers R1.3bn outage in electricity revenue. *Times Live* (online), 22 June 2015. Retrieved on July 11, 2015 from http://www.timeslive.co.za/thetimes/2015/06/22/City-Power-suffers-R1.3bn-outage-in-electricity-revenue#

Moodley, S. (2007). *Public participation and deepening democracy: experiences from Durban, South Africa.* In Buccus, I and Hicks, J. (Eds). *Critical Dialogue: Public participation in review*, Volume 3 No. 1. Durban: Centre for Public Participation.

Moodley, S. (2014). City of Johannesburg recovers R107m in lost revenue. *Engineering News* (online), 07 August 2014. Retrieved on July 11, 2015 from http://www.engineeringnews.co.za/article/city-of-johannesburg-recovers-r107m-in-lost-revenue-2014-08-07

Moore, A (2011). *Interview with Dr Annatjie Moore (Director, Strategic Analysis, Department of Performance Monitoring and Evaluation (DPME)*, *The Presidency Office*, conducted on 19 July 2011 at the Union Building.

Morris, R. C. (1997). *Early warning indicators of corporate failure: A critical review of previous research and further empirical evidence*. UK: Ashgate.

Moss, H. K. (2007). Improving service quality with the theory of constraints. In *Journal of Academy of Business and Economics*. Retrieved on June 5, 2011 from http://www.pinnacle-strategies.com/articles/Improving%20Service%20Quality%20with%20ToC%20short.pdf

Mottaz, C. J. (1981). Some Determinants of Work Alienation. *The Sociological Quarterly*, 22(4) (Autumn, 1981), 515-529. Retrieved on August 11, 2015 from http://www.jstor.org/stable/ 4106241?seq=1#page_scan_tab_contents

Mouton, J & Marais, H. C. (1991). *Basic concepts in the methodology of social sciences*. Pretoria. Human Sciences Research Council.

Naidoo, G. & Kyue, J. O. (2005). Service Delivery in the South African Public Service: An Overview from 1994 to 2003. *Journal of Public Administration*, Vol 40, No 4.1, December 2005.

Naidoo, I. (2011). *The Monitoring and Evaluation System in South Africa: Many Purposes, Multiple System*. A Thesis submitted to the Graduate School of Public & Development Management in fulfilment of the requirements for the Degree of Doctor of Philosophy, the University of the Witwatersrand, Johannesburg, in 2011.

Naidoo, J. (2014). The night of the long knives. *Daily Maverick* (online), 09 Nov 2014. Retrieved on November 17, 2015 from http://www.dailymaverick.co.za/opinionista/2014-11-09-the-night-of-the-long-knives/#.VGHcfLDoQiN

Naidoo, K. & Simmonds, M. (2007). *Some Reflections on Public Sector Performance*, paper for public service commission (PSC). Retrieved on March 25, 2011 from www.ipmahr.org/ improvingperformancepsc.htm.

National Treasury, Republic of South Africa (2004). *Implementing the Municipal Finance Management Act, 2003*. Pretoria: National Treasury.

National Treasury, Republic of South Africa (2010). *Municipal Finance Management Skills Training Programme: Learner Guidelines and Logbook*. Retrieved on November 19, 2011 from http://mfma.treasury.gov.za/MFMA/Training%20and%20Validation/MFM%20skills%20training%20programme%20Learner%20Guidelines%20And%20Logbook.pdf

National Treasury, Republic of South Africa (2011). *2011 Local Government Budgets and Expenditure Review*. Retrieved on May 15, 2015 from http://www.treasury.gov.za/publications/ igfr/2011/default.aspx

Ndletyana, M., Makhalemele, P. O. & Mathekga, R. (2013). Patronage politics divides us: a study of poverty, patronage and inequality in South Africa. MISTRA (Mapungubwe Institute for Strategic Reflection) Research Report. Johannesburg. 2013. Retrieved on September 16, 2016 from http://www.mistra.org.za/Library/Reports/Documents/Patronage%20Politics%20Divides%20Us%20-A%20Study%20of%20Poverty,%20Patronage%20and%20Inequality%20in%20South%20Africa.pdf

Neethling, C., Maganlal, M. & Cohen, D. (2011). *Role of 3 spheres of Government in LED and the role of SALGA in economic development*. Presented at the Select Committee on Economic Development, 25 October 2011.

Netswera, F. G. & Phago, K. G. (2011). Perceptions about Municipal Governance in the post-1996 Era: The Case of Thulamela Local Municipality. In *Africa Insight* Vol 41 (2) – September 2011. P. 130-141.

Netswera, F. G. (2005). *Local Government Service Provision and Non-payment within Underdeveloped Communities of the Johannesburg Unicity: Service Providers' and Consumers' Perspective*. Unpublished PhD thesis, submitted to the University of Stellenbosch, South Africa.

Netswera, F. G. (2008). A Case Study of Community Participation in Governance and Service Delivery in the City of Johannesburg. In M van Donk, M. Swilling, E. Pieterse & S. Parnell (Eds.), *Consolidating Developmental Local*

Government: Lessons from the South African Experience (pp. 511-523). Cape Town: UCT Press.

Neuman, W.L. (2003). *Social research methods: Qualitative and quantitative Approaches*. Boston: Allyn & Bacon.

News 24 (2014). Residents don't trust government – survey. *News 24*, August 14, 2014. Retrieved on July 20, 2015, from http://www.news24.com/SouthAfrica/News/Residents-dont-trust-government-survey-20140814

Nikander, I. O. & Eloranta, E. (2001). Project management by early warnings. *International Journal of Project Management,* 19(7), October 2001, 385–399.

Nikander, I. O. (2002). *Early Warnings: A Phenomenon in Project Management*. PhD Dissertation submitted to the Department of Industrial Engineering and Management, Helsinki University of Technology (Espoo, Finland) in April, 2002. Espoo (Finland): Helsinki University of Technology.

Nikander, I. O., & Eloranta, E. (1997). Preliminary signals and early warnings in industrial investment projects. *International Journal of Project Management, 15*(6), 371 - 376.

Niskanen, W. (1971). *Bureaucracy and Representative Government.* Chicago: Rand McNally.

Niwa, K. (1989). *Knowledge-based risk management in engineering*. New York: Wiley.

Nkoana, T. D. (2007). *The Impact of the New System of Local Government on Sustainable Municipal Service Delivery and Development in Polokwane*. Upublished Master Thesis submitted to University of Limpopo.

Nkwinika, T. (2010). South Africa. In *Resourcing the Local Government and revenue raising in the SADC Region*. A Compendium of research reports, EISA (Electoral Institute for Sustainable Democracy in Africa). Johannesburg: EISA.

Noor, K. B. M. (2008). Case Study: A Strategic Research Methodology. *American Journal of Applied Sciences*, 5 (11), 1602-4.

Nyalunga (note 236).2. (325 Imraan Buccus et al ‗Research report: public participation and local governance' (2007) *Centre for Public Participation research paper* at 3. Available at http://www.cpp.org.za/publications/2007/local.pdf [Accessed 11 December 2009].)

Nyalunga, D. (2006). Crafting Active Citizen Participation through Ward Committees. *International NGO Journal*, 1 (3):041-046.

Nyandeni Local Municipality (2010). Integrated Performance Management System Policy. Retrieved on March 29, 2016 from http://nyandenilm.gov.za/wp-content/uploads/documents/PMS-POLICY.pdf

O'Neill, K. (2003). Decentralization as an Electoral Strategy. *Comparative Political Studies*, 36(9), pp. 1068-1091. Retrieved on April 10, 2012 from http://cps.sagepub.com/content/36/9/1068.full.pdf+html

Oberholzer, C. (2012). The "Ideal Municipality" is not yet beyond Reach. *Equilibrium News* May 2012, Edition 7. Johannesburg: Deloitte & Touche.

OECD (Organisation for Economic Cooperation and Development) (2005). *Local governance and the drivers of growth*. Paris: OECD.

Olson, M. (1965). *The Logic of Collective Action.* Cambridge, Massachusetts: Harvard University Press.

Omoyefa, P. S. (2008). Public Sector Reforms in Africa: A Philosophical Re-Thinking. *Africa Development,* 33(4), 15–30.

Opperman, L. (2007). Capacity Building in the Financial Management of Municipalities. In *IMFO: Official Journal of the Institute of Municipal Finance Officers,* 9(30), 37-44.

Oyelaran-Oyeyinka, R. N. I. (2006). *Governance and bureaucracy: Leadership in Nigeria's Public Service: The Case of the Lagos State Civil Service (1967-2005)*. PhD dissertation. Netherlands: Datawyse Maastricht.

Palys, T. (1997). *Research Decisions: Quantitative and Qualitative Perspectives* (2nd Ed.). Toronto: Harcourt Brace.

Parasuraman, A., Zeithaml, V. & Berry, L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49 (4), 41-50.

Paton, C. (2013). Municipalities' turnaround plan heading wrong way. In *Business Day*, (online) 30 APRIL 2013. Retrieved on May 3, 2013 from http://www.bdlive.co.za/national/ 2013/04/30/municipalities-turnaround-plan-heading-wrong-way

Patton, M. Q. (2001). *Qualitative Research and Evaluation Method* (3rd Ed.). Thousand Oaks, CA: Sage.

Patton, M. Q. (2008). *Utilisation Focused Evaluation* (4th ed.). Thousand Oaks, California: Sage Publications.

Pearson, L. (2012). *Early warning of disasters: Facts and figures*. Retrieved on December 22, 2013 from http://www.scidev.net/global/communication/feature/early-warning-of-disasters-facts-and-figures-1.html

Perrin, B., Owen, J., van den Knapp, P. & Stame, N. (2008). *Accountability for the 21st Century: How Evaluation Can Help Align Accountability Practices with Current Realities of Public Sector Management*. Paper presented at the European Evaluation Conference.

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

Phalatse, P. H. (2010). *Effectiveness of the City of Johannesburg Metropolitan Council's Performance Management System*. An unpublished research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the Degree of Masters of Management in the field of Public and Development Management, December 2010.

Pienaar, D. & Geldenbloem, E. (2013). *15 Year Review: A review of changes in the macro-organization of the state: 1994–2008*. Pretoria: DPSA. Retrieved on September 16, 2016 from http://www.thepresidency.gov.za/docs/reports/15year_review/governance/macro_organisation.pdf

Pikitup (2010a). *Annual Report 2009/10*. Johannesburg: Pikitup.

Pikitup (2010b). *Business Plan 2009/10*. Johannesburg: Pikitup.

Pikitup (2011a). *Annual Report 2010/11*. Johannesburg: Pikitup.

Pikitup (2011b). *Business Plan 2010/11*. Johannesburg: Pikitup.

Pikitup (2012a). *Annual Report 2011/12*. Johannesburg: Pikitup.

Pikitup (2012b). *Business Plan 2011/12*. Johannesburg: Pikitup.

Pikitup (2013a). *Annual Report 2012/13*. Johannesburg: Pikitup.

Pikitup (2013b). *Business Plan 2012/13*. Johannesburg: Pikitup.

Pikitup (2014b). *Budget (for budget year 2014/15) submitted to the National Treasury*. Retrieved on June 20, 2015 from http://mfma.treasury.gov.za/Documents/Forms/AllItems.aspx?RootFolder=%2fDocuments%2f08.%20Municipal%20entities%2f2014-15%2f01.%20Metros%2fJHB%20City%20of%20Johannesburg&FolderCTID=&View={84CA1A01-EF8A-4DE0-8DC4-47D223CB5867}

Pikitup (2015). 2014-2015 Integrated Annual Report.

Pikitup, (2014a). *Annual Report 2013/14*. Johannesburg: Pikitup.

Pinto, J. K., & Slevin, D. P. (1992). *Project Implementation Profile*. Tuxedo, NY: Xicom, Inc.

Piper, L. & Chanza, N. (2006). "Too raw" to represent: the marginalisation of youth in Msunduzi ward committees. *Critical Dialogue – Public Participation in Review* 18-23. Retrieved September 25, 2016, from https://www.academia.edu/

704265/Too_Raw_to_Represent_The_Marginalisation_of_Youth_in_Msunduzi_Ward_Committees

Piper, L. & Chanza, N. (2006). Too raw to represent: the marginalisation of youth in Msunduzi ward committees. *Critical Dialogue –Public Participation in Review* (2006) 2 (2) 18 at 22.

Piper, L. & Deacon, R. (2006). Deepening democracy, enhancing elite control or just ineffectual? ward committee politics in the Msunduzi Municipality. *Grant Report for Centre of Civil Society & University of KwaZulu-Natal, pp. 1-34.* Retrieved on September 16, 2016 from *http://ccs.ukzn.ac.za/files/Piper%20&%20Deacon%202006%20Deepening%20Democracy.pdf*

Piper, L. & Deacon, R. (2008) Party politics, elite accountability and public participation: Ward committee politics in the Msunduzi Municipality, *Transformation*, 66/67, pp.61-82. Retrieved on September 16, 2016 from https://www.researchgate.net/profile/Laurence_Piper/publication/228432166_Party_politics_elite_accountability_and_public_participation_Ward_committee_politics_in_the_Msunduzi_Municipality/links/00b7d533e989164f66000000.pdf?origin=publication_detail

Piper, L. & Deacon, R. (2009). Too dependent to participate: ward committees and local democratisation in South Africa. *Local Government Studies*, 35(4): 415-433. Retrieved on September 16, 2016 from http://repository.uwc.ac.za/xmlui/bitstream/handle/10566/483/PiperWardCommittees2009.pdf

Piper, L. (2009). *The wrong space at the wrong time: Explaining the Failure of Formal Public Participation in South African Local Government*. Presentation to a Democracy Development Programme (DDP) workshop entitled Institutional Participation in South Africa's Public Sphere, 7-8 September 2009, Durban, South Africa.

Piper, L., & Anciano, F. (2015). Party over outsiders, centre over branch: How ANC dominance works at the community level in South Africa. *Transformation: Critical Perspectives on Southern Africa*, *87*(1), 72-94. Retrieved on September 16, 2016 from http://www.academia.edu/download/37856877/7._Piper_and_Anciano_1_lp_corrections_24_February.docx

plf515, (2012). We are all different in ways that matter, but we are all the same in the ways that matter most. *dailykos* (online), May 19, 2012. Retrieved on December 1, 2015 from http://www.dailykos.com/story/2012/5/19/1093045/-We-are-all-different-in-ways-that-matter-but-we-are-all-the-same-in-the-ways-that-matter-most

PMG (2014). Fiscal Challenges in Municipalities and Support/Interventions by COGTA and Auditor General, NCOP Finance Committee Meetings on 16 July 2014. Retrieved September 25, 2016, from https://pmg.org.za/committee-meeting/17318/

PMG (Parliamentary Monitoring Group) (2010). *Service Delivery Public Hearings: 3 Days, on 1, 2 and 3 Feb 2010*. Retrieved on April 10, 2012 from http://www.pmg.org.za/minutes/636

PMG (Parliamentary Monitoring Group) (2012). *CoGTA briefing on Clean Audit by 2014* (at PMG on August 29, 2015). Retrieved on December 21, 2015 from http://www.pmg.org.za/report/20120829-briefing-national-department-cooperative-governance-progress-report-o

PMG (Parliamentary Monitoring Group) (2013a). *ATC131017: Draft Report of the Portfolio Committee on Cooperative Governance and Traditional Affairs on the oversight visits to North West and Eastern Cape Provinces*. Retrieved on January 25, 2014 from http://www.pmg.org.za/atc131017-draft-report-portfolio-committee-cooperative-governance-and-traditional-affairs-oversight-visits-north-west-and

PMG (Parliamentary Monitoring Group) (2013b). *Presentation and briefing on "Municipal Assessment Tool and Summary Outcomes Report by Department of Performance Monitoring and Evaluation to the Standing Committee on Appropriations of Parliamentary Monitoring Group*, on 10 September 2013. Retrieved on May 15, 2014 from http://www.pmg.org.za/ report/20130910-municipal-assessment-tool-and-summary-outcomes-report

Porter, S. (2012). The Growing Demand for Monitoring and Evaluation in Africa. In CLEAR (Centre for Learning on Evaluation and Results) (Ed.), *African Monitoring and Evaluation Systems: Exploratory Case Studies* (pp.6-19). Johannesburg: CLEAR, Wits School of Governance.

Powell, D. (2009). What is wrong with local government? *The Magazine of Local Government*. Oct 2009.

Powell, D. (2012). Imperfect Transition—Local Government Reform in South Africa 1994-2012. in S. Booysen (Ed.), Local Elections in South Africa: *Parties, People, Politics* (pp. 11-30). Bloemfontein: Sun Press.

Pratt, J. & Zeckhauser, R. (Eds.) (1985). *Principals and Agents: The Structure of Business.* Boston: Harvard Business School Press.

Presidential Review Commission (1998). *Developing a Culture of Good Governance: Report of the Presidential Review Commission on the Reform and Transformation of the Public Service in South Africa*. Retrieved on April 17,

2012 from http://www.polity.org.za/polity/govdocs/reports/presreview/index.html

PSC (Public Service Commission) (2008). *Report on the Evaluation of the Training Needs of Senior Managers in the Public Sector*. Pretoria: Public Service Commission.

PSC (Public Service Commission) (2010). Key Drivers of Citizen Satisfaction with Public Service Delivery: Pilot Report 2009/2010. Retrieved on May 11, 2012 from www.psc.gov.za/documents/2010/ReportOfCitizenFinalPrint%20.pdf

Public Protector, South Africa (2015). *Public Protector Thuli Madonsela interacts with City of Joburg Ombudsman*. Media Statement, on 15 Apr 2015. Retrieved on June 10, 2015 from http://www.gov.za/speeches/public-protector-shares-wisdom-new-city-joburg-ombudsman-15-apr-2015-0000

Punch, K. (2000). *Developing effective research proposals*. California: Sage

Putu, M. (2006). The role of ward committees in enhancing public participation in Rustenburg Municipality: A critical evaluation. Research report prepared for IDASA Citizen Leadership Unit. Retrieved on September 16, 2016 from www.ewisa.co.za/ewisawaterworks/misc/MunicipalDocuments/NWDisBojanala_Platinum/LMRustenburg/ward_committee_promoting_citizen_participation.pdf

Pycraft, M., Singh, H., Phihlela, K., Slack, N., Chambers, S., Harland, C., Harrison, A. & Johnston, R. (2000). *Operation Management* (South Africa Edition). Cape Town: Pearson Education.

Pycroft, C. (2000). Democracy and delivery: the rationalization of local government in South Africa. In *International Review of Administrative Sciences*. Vol. 66 (2000), p. 143–159; 011960. Retrieved on 25 September 2013 from http://ejournal.narotama.ac.id/files/the%20rationalization%20on%20local%20government%20in%20south%20africa.pdf

Qwabe, B., Wenhold, M., Mdaka, P., Totwe, S., April, M., Kibirige, F., Dambudzo, J., & Nzo, T. (2011) *The State of Local Governance in South Africa from a Citizen Perspective* (Edited by Paul van Hoof). Cape Town: ABC Press. Retrieved on August 25, 2011 on http://www.idasa.org/media/uploads/outputs/files/ the state of local governance in south africa from a citizen perspective.pdf

Rabie, B. (2011). *Improving the systematic evaluation of local economic development results in South African local government*. Unpublished PhD thesis submitted to at Stellenbosch University. Retrieved on January 10, 2014

from http.scholar.sun.ac.za/bitstream/handle/10019.1/rabie_improving_2011.pdf

Radebe, P. Q. (2013). *The Impact of a Performance Management System on Service Delivery in the City of Johannesburg Metropolitan Municipality*. PhD thesis submitted in accordance with the requirements for the degree of Doctor of Philosophy in Management and Development at the North-West University Vaal Triangle Campus, in 2013

Rakate, N.F. (2006). *Transformation of the South African Public Service*. Pretoria: Research Report. University of Pretoria, South Africa.

Ramaite, R. M. (2002). *The First South Africa Public Management Conversation*. A conference paper delivered at Stonehenge Conference Centre, Prays, Free State, South Africa on 01-04 December 2002.

Reinhnrdt, W. A. (1984). An Early Warning System for Strategic Planning. *Long Range Planning,* 17(5), 25-34.

Reinikka, R. & Svensson, J. (2002). Assessing frontline service delivery. In T. Addision, H. Hansen, & F. Trap (Eds.) *Debt Relief*. Washington, D.C.: World Institute for Development Economic Research (WIDER).

Rezapour, M. & Mousavian, H. (2007). An analysis on relation of job self alienation, demographic components, and job components with mental health of industries' personnel. *Work and society*, No 87/88, p. 51

Robinson, T. D. (2012). *Weak Signals in American History: Applying Historical Events to Present Decisions in Business*. University of Tennessee Honors Thesis Projects. Retrieved on June 15, 2014 from http://trace.tennessee.edu/utk_chanhonoproj/1555

Robson, C. (1993). *Real World Research: A Resource for Social Scientists and Practioner-Researchers*. Oxford: Blackwell.

Rodrik, D. (2004). *Industrial Policy for the Twenty-First Century*. Retrieved on May 21, 2015 from https://research.hks.harvard.edu/publications/getFile.aspx?Id=146

Rogers, D. & Tsirkunov, V. (2011). Costs and benefits of early warning systems. Global Assessment Report on Disaster Risk Reduction. Retrieved September 25, 2016, from http://www.preventionweb.net/english/hyogo/gar/2011/en/bgdocs/Rogers_&_Tsirkunov_2011.pdf

Rogers, P. (2008). Using programme theory to evaluate complicated and complex aspects of interventions. *Evaluation*, 14(29), 29–48.

Rogers, S. (1990). *Performance management in local government*. London: Longman.

Rooney, J. J. & Heuvel, N. V. (2004). Root Cause Analysis for Beginners. *Quality Basics*, July 2004, 45-53. Retrieved on January 25, 2014 from https://webspace.utexas.edu/mae548/www/research/digital%20forensics/qp0704rooney.pdf

RSA (Republic of South Africa) (1993). *The Interim Constitution of South Africa, 1993 (Act 200 of 1993)*. Pretoria: Government Printers.

RSA (Republic of South Africa) (1995). *White Paper on the Transformation of the Public Service (WPTPS) (Notice 1227 of 1995)*. Pretoria: Government Printers.

RSA (Republic of South Africa) (1996). *The Constitution of the Republic of South Africa (Act 108 of 1996).* Pretoria: Government Printer.

RSA (Republic of South Africa) (1997). *White Paper on Transforming Public Service Delivery (Batho Pele White Paper)*. Pretoria: Government Printer.

RSA (Republic of South Africa) (1998a). *The White Paper on Local Government.* Pretoria: Government Printer.

RSA (Republic of South Africa) (1998b). *Municipal Structures Act*. Pretoria: Government Printer.

RSA (Republic of South Africa) (2000). *Municipal Systems Act (Act 32 of 2000).* Pretoria: Government Printer.

RSA (Republic of South Africa) (2001). *Municipal Planning and Performance Management Regulations, 2001*. Pretoria: Government Printer. Retrieved on January 25, 2014 from http://www.lesedilm.gov.za/files/Systems-Act-Regulations-IDP.pdf

RSA (Republic of South Africa) (2003). *The Department of Provincial and Local Government Manual, 2003*. Pretoria: Government Printer.

RSA (Republic of South Africa) (2010). Performance Agreement between the President of the Republic of South Africa and the Minister for public Service and Administration (Period of agreement May 2010 to April 2014).

RSA (Republic of South Africa) (2013). *Millennium Development Goal: Country Report 2013*. Retrieved on May 15, 2015 from www.za.undp.org/content/dam/south_africa/docs/Reports/The_Report/FMDG_October-2013.pdf

Sacht, J. (2002). *Critical success factors to support the management of performance in public and private sector organisations*. Retrieved on March 19, 2011 from http://www.workinfo.com/free/downloads/61.htm

SAIGA (The Southern African Institute of Government Auditors (2011). *The Financial Skills Shortage in South Africa's Public Sector: An Institutional Contribution*

towards a Long-term Solution. A Position Paper prepared by SAIGA. Retrieved on 25 September 2013 from http://www.csir.co.za/enews/2011_jun/download/ infrastructure_report_card_sa_2011.pdf

SALGA (The South African Local Government Association) (2010). *Key issues in local economic development in South Africa and a potential role for SALGA*. Pretoria: SALGA. Retrieved on June 20, 2012 from http://www.salga.org.za/pages/Knowledge--Hub/Documents/SALGA-Position-Papers

SALGA (The South African Local Government Association) (2011a). *A Handbook for Municipal Councillors, 2011*. Retrieved October 23, 2011, from www.salga.org.za/documents/download/app/webroot/assets/files/Councillor%2520Induction%2520Training%2520Material/Low%2520Res%25203pm.pdf

SALGA (The South African Local Government Association) (2011b). SALGA Comments: Local Government Budgets and Expenditure Review, PC CoGTA. 25 October 2011. Retrieved March 23, 2016, from http://www.salga.org.za/app/webroot/assets/files/ParliamentaryBriefings/LGBER%202011%20-%20SALGA%20Comments%20V2.pdf

Samihah, K. & Adelabu, S. A. (2010). *A Case study of Service Delivery by Local Government Councils in Oyo state in relation to Fund and Constitutional Issues*. Retrieved on December 19, 2012 from http://repositorio.iscte.pt/bitstream/ 10071/2388/1/CIEA7_38_SAMIHAH%26ADELABU_A%20Case%20study%20of%20Service%20Delivery.pdf

SAMWU (South African Municipal Workers' Union) (2015). *SAMWU disgusted at Municipal Managers' Salary Increases*. SAMWU Media Statement, issued on 9 September 2015. Retrieved on November 20, 2015, from http://www.cosatu.org.za/docs/cosatu2day/2015/pr0909b.html

Sapa (South African Press Association) (2009). SA's municipalities in 'state of paralysis'. *Mail & Guardian* (online), 10 Jun 2009. http://mg.co.za/article/2009-06-10-sas-municipalities-in-state-of-paralysis

Schacht, R. (1970). *Alienation*. Garden City, NY: Doubleday.

Schacter, M. (2000). *Public Sector Reform in Developing Countries: Issues, Lessons and Future Directions*. Policy Branch, Canadian International Development Agency: Ottawa.

Scheff, T. J. (2008). Awareness Structures: Defining Alienation/Solidarity. *The Journal of Power*, 2008. 1(3), 237-251.

Schmidt, D. (2007). Report on the Good Governance Learning Network Workshop on the Local Government White Paper Review Process. Retrieved on September 16, 2016 from http://isandla.org.za/download/assets/local6-1.pdf

Schoemaker, P. J. H., & Day, G. S. (2009). How to Make Sense of Weak Signals. *MIT Slogan Management Review, 50*(3), 81 - 89.

Schulz-Herzenberg, C. (2014). *Voter participation in the South African elections of 2014*. Policy Brief 61, Institute for Security Studies (ISS), August 2014. Retrieved on September 16, 2016 from https://issafrica.s3.amazonaws.com/site/uploads/PolBrief61_Aug14.pdf

Schurink, W. J. (2005). Qualitative Research Design: Part 1. Lecture notes to Doctoral and Masters students for the Leadership in Performance and Change Programme at the University of Johannesburg, Johannesburg.

Schwartz, D. C. (1973). *Political alienation and political behavior*. Chicago: Aldine

Schwella, E. (2001). Public Sector Policy in the new South Africa: A Critical Review. In *Public Performance & Management Review*, 24, 4, 2001, pp. 367-88.

Seasons, M. (2003). Monitoring and Evaluation in Municipal Planning: Considering the Realities. *Journal of the American Planning Association*, Vol. 69, No. 4, Autumn 2003.

Seeman, M. (1959). On the meaning of alienation. *American Sociological Review, 24*(6), 783-791.

Seeman, M. (1959). On the Meaning of Alienation. *American Sociological Review*, 24, p. 783-791.

Seeman, M. (1972). Alienation and Engagement, in A. Campbell and P. E. Converse (eds.), *The human meaning of social change*. New York: Russell Sage Foundation. P. 467-527.

Seeman, M. (1975). Alienation Studies. *Annual Review of Sociology, 1,* 91-123.

Sejeng, T. (2013). Municipal Performance M&E. A presentation presented on 10 April 2013 at the IMFO indaba: Key to sustainable service delivery. Retrieved on May 19, 2013 from http://imfo.co.za/downloads/april13/Municipal%20Performance,%20Monitoring%20and%20Evaluation%20and%20the%20new%20tool%20introduced%20-%20Tshepo%20Sejeng.pdf

Selisho, K. (2015). Tech university set to address ICT skills shortage. *Business Day Live* (online), October 12 2015. Retrieved on November 27, 2015, from http://www.bdlive.co.za/national/education/2015/10/12/tech-university-set-to-address-ict-skills-shortage

Sera, Y. & Beaudry, S. (2007). *Monitoring & Evaluation: Tips for Strengthening Organizational Capacity*. Washington D.C: World Bank.

Serote, P. (2010). Results of audits of performance information. (A presentation at the Ad Hoc Committee on Service Delivery, on 2 February 2010).

Shafritz, J.M. and E.W. Russell (2000). *Introducing Public Administration* (2nd ed.). New York: Longman.

Shah, A. (2005). *Public Services Delivery: Public sector, governance and Accountability Series.* Washington DC: World Bank.

Shaidi, E. W. (2010). Role of ward committees in influencing public participation: The role of ward committees in influencing public participation: Case study of Motherwell, the Nelson Mandela municipality, South Africa. August 20, 2010

Shulver, M. J. & Antarkar, N. (2001). The Balanced Scorecard as a Communication Protocol for Managing Across Intra-Organizational Borders. *Proceedings from the 12th Annual Conference of the Production and Operations Management Society, Orlando, Florida, USA*. Retrieved on January 21, 2016 from http://v7a.2gc.org/files/resources/2GC-CP-POMS-090312.pdf

Silverman, D. (2000). *Doing Qualitative Research: A Practical Handbook*. London: Sage.

Simon, H. (1991). Organisations and markets. *Journal of Economic Perspectives*, 5(2), 25-44.

Singh, J. & Shah, P. (2003). *Making Services Work for Poor People: The Role of Participatory Public Expenditure Management (PPEM)*. Retrieved on May 15, 2011 from http://siteresources.worldbank.org/INTPCENG/1143372-1116506152959/20542171/sdn81.pdf

Smith, A. (1976). *An Inquiry into the Nature and Causes of the Wealth of Nations.* (edited by E. Cannan). Retrieved February 3, 2005, from http://www.adelaide.edu.au/library/etext/s/s64w/s64w.zip

Solidarity Research Institute (2011). *Comments on the Labour Relations Amendment Bill, the Basic Conditions of Employment Amendment Bill, the Employment Equity Act Amendment Bill and the Employment Services Bill*. Retrieved on January 17, 2012 from http://www.solidarityresearch.co.za/wp-content/uploads/2011/02/labour-bills.pdf

Soy, S. K. (1996). *The Case Study as a Research Method: Uses and Users of Information*. Retrieved on April 25, 2009, from http://faculty.uccb.ns.ca/pmacintyre/course.pdfthod.pdf.

Standing, H. (2004). *Understanding the 'demand side' in service delivery: Definitions, frameworks and tools from the health sector*. Health Systems Resource Centre, DFID (Department for International Development), London. Retrieved

on July 13, 2015 from http://www.dfidhealthrc.org/publications/health_service_delivery/Standing.pdf

Stanton, A. (2009). *Decentralisation and Municipalities in South Africa: An Analysis of The Mandate to Deliver Basic Services*. Unpublished PhD dissertation University of KwaZulu-Natal, Pietermaritzburg. Retrieved on September 19, 2011 from http://researchspace.ukzn.ac.za/xmlui/handle/10413/623

Stats SA (2016). *Non-financial Census of Municipalities for the year ended 30 June 2015.* Retrieved September 25, 2016, from http://www.statssa.gov.za/?page_id=1854&PPN=P9115&SCH=6677

Stats SA (Statistics South Africa) (2012). *Census 2011 Municipal Fact Sheet*. Retrieved on February 5, 2011 from http://www.statssa.gov.za/Census2011/Products/Census_2011_Municipal_fact_sheet.pdf

Staugaitis, D. S. (2002). Root Cause Analysis: A Summary of Root Cause Analysis and its use in State Developmental Disabilities Agencies. Retrieved on 25 January 2014 from http://www.hsri.org/files/uploads/publications/Root_Cause_Analysis.pdf

Stewart, J. (1995). *Understanding the Management of Local Government* (2nd Ed.) London: Pitman.

Stewart, J. D. (1984). *The role of information in public accountability*. In Hopwood, A. and Tomkins, C. (Eds) Issues in public sector accounting. New York: Philip Alan.

Steytler, N. (2008). Strangulation of Local Government. *Journal of South African Law*, 37(3): 518–35.

Strathern, P. (1996). *Hume in 90 minutes*. London: Constable.

Strauss, A. and Corbit, J. (1990). *Basic consideration in Basics of Qualitative Research: Grounded theory procedures and technique*. California: Sage.

Styan, J. B. (2013). What City Power hasn't told you. *Fin24*, (online) Sep 09, 2013. http://www.fin24.com/Economy/What-City-Power-hasnt-told-you-20130909

Subban, J. (1994). *Some discussions on the local government restructuring process in the greater Durban area and related development issues*. Paper presented at 'Perspectives on Local Government Management and Development in Africa' Conference, University of Durban-Westville.

Summers, P. (2014). Why problem management needs to be proactive as well as reactive. *Hornbill (online),* 19 November 2014. Retrieved on September 16, 2016 from https://support-works.com/problem-management-needs-proactive-well-reactive/

Swellendam Municipality (2013). *Performance Management Policy Framework*. Retrieved on March 29, 2016 from http://swellenmun.co.za/Findex.php/policies-bylaws/policies-1/478-performance-management-policy-framework-2015/file

Swilling, M., Monteiro, O. & Johnson, K. (1995). *Building democratic local government in Southern Africa: A review of key trends*. Paper presented at the World Congress of the Global Urban Research Initiative, Mexico City.

Szelényi, I. (2009). *Foundations of Modern Social Theory*. City: Publisher

Teisberg, T. J. & Weiher, R. F. (2009). Benefits and Costs of Early Warning Systems for Major Natural Hazards. Submitted to The World Bank Group, Global Facility for Disaster Reduction and Recovery (GFDRR), March 18, 2009. Retrieved September 25, 2016, from https://www.gfdrr.org/sites/gfdrr/files/Teisberg_EWS.pdf

Tellis, W. (1997). Application of a Case Study Methodology. In *The Qualitative Report*, 3(3), September, 1997. Retrieved on January 11, 2014 on http://www.nova.edu/ ssss/QR/QR3-3/tellis2.html

The Guardian (2015). Water loss: seven things you need to know about an invisible global problem. *The Guardian*, March 02, 2015. Retrieved on August 20, 2015, from http://www.theguardian.com/sustainable-business/2015/mar/02/water-loss-eight-things-you-need-to-know-about-an-invisible-global-problem

The Institute of Race Relations (IRR) (2015). Born Free but Still in Chains: South Africa's First Post-Apartheid Generation. Retrieved on September 16, 2016 from http://irr.org.za/reports-and-publications/occasional-reports/born-free-but-still-in-chains-south-africa2019s-first-post-apartheid-generation

The National Treasury (2004). *Modernising Financial Governance: Implementing the Municipal Finance Management Act, 2003*. Retrieved on January 25, 2014 from http://mfma.treasury.gov.za/MFMA/Guidelines/Introductory%20guide%20Revised.pdf

The National Treasury (2012) Chief Financial Officers Handbook for Municipalities (1st Edition). Pretoria: National Treasury. Retrieved September 25, 2016, from https://oag.treasury.gov.za/Publications/ 14.%20Handbooks/Chief%20Financial%20Officers%20Handbook%20-%20Municipalities.pdf

The National Treasury (2015). Service standards included in the Budget Circular 2015. Retrieved on August 25, 2015 from http://mfma.treasury.gov.za/Circulars/ Documents/Forms/AllItems.aspx?RootFolder=/Circulars/Documents/Circular%2075%20-

%202015%20MTREF&FolderCTID=&View={06AB24E7-1C64-4A80-A0FA-273E6A829094}

The New Age (2011). Merit in Carrim's *Call*. (21 September 2011), p. 16.

The Presidency (RSA) (2008). *The Role of Premiers' Office in Government-wide Monitoring and Evaluation: A Good Practice Guide*. Pretoria: The Presidency.

The Presidency (RSA) (2009). *Improving Government Performance: Our Approach. Pretoria: The Presidency*. Retrieved on May 2, 2013 from http://www.thepresidency.gov.za/ learning/gov_performance.pdf

The Presidency (RSA) (2010). *Guide to the outcome approach*. Retrieved on August 25, 2012, from http://www.thepresidency.gov.za/dpme/docs/guideline.pdf

The Presidency (RSA) (2011a) *Performance Assessment Tool (PAT) Framework Document*. Retrieved on August 25, 2011 from http://www.thepresidency.gov.za/MediaLib/Downloads/Home/Publications/PolicyCoordinationandAdvisoryServicesPolicyUnitPCASpublicationsanddocuments/MonitoringandEvaluation/Usefuldocuments/PAT%20FRAMEWORK.pdf

The Presidency (RSA) (2011b). *Department of Performance Monitoring and Evaluation: Strategic plan (2011/12 – 2015/16).* Pretoria: DPME, the Presidency. Retrieved on August 25, 2011, from http://www.thepresidency.gov.za/MediaLib/Downloads/Home/Ministries/DPME%20Strategic%20Plan%202011-2016.pdf

The Presidency (RSA) (2011c). Performance Assessment Tool (PAT) Framework Document. (Version 1, 24 May 2011). Pretoria: The Presidency.

The Star (2013). Your water, rates and electricity issues fixed. *The Star*, July 12, 2013, page 6.

Thepa, M. (2013). AG Flunks SA's public servants. *Sunday World* (online), on 28 April Retrieved on February 5, 2014 from 2013. http://www.sundayworld.co.za/news/2013/04/28/a-g-flunks-sa-s-public-servants

Tsatsire, I. (2008). *A Critical Analysis of Challenges Facing Developmental Local Government: A Case Study of the Nelson Mandela Metropolitan Municipality*. Unpublished PhD thesis presented to the faculty of arts at the Nelson Mandela Metropolitan University in fulfilment of the requirements for the degree: Doctor Philosophiae.

Tsatsire, I., Taylor, J.D. & Raga, K. (2010). Local service delivery enhancement - attitudes: A case study of the Nelson Mandela Bay Municipality. *the Journal for Transdisciplinary Research in Southern Africa,* 6(1), 271 – 285.

Tshandu, Z. & Kariuki, S. (2010). Public administration and service delivery reforms: A post-1994 South African case. In *South African Journal of International Affairs*, 17(2), 189-208. Retrieved on August 25, 2012, from http://www.tandfonline.com/toc/ rsaj20/17/2#.UvDqhifOSZQ

Tullock, G. (1965). *The Politics of Bureaucracy.* Washington, D.C.: Public Affairs Press.

Turok, I. (2015). South Africa's new urban agenda: Transformation or compensation? *Local Economy* November 5, 2015, 1–19. doi: 10.1177/0269094215614259

U.S. Census Bureau (2012). *2012 Census of Governments*. Retrieved April 10, 2015, from http://www.census.gov/govs/cog2012/

Umdoni Municipality (2009). *PM Policy as reviewed for 09/10*. Retrieved on January 25, 2014 from http://www.umdoni.gov.za/pdf/ANEXURES/Sector%20Plans/PMS%20policy.pdf

UN (United Nations) (2006). *Global Survey of Early Warning Systems*. United Nations report, 2006. Retrieved on February 01, 2014 from http://www.unisdr.org/2006/ppew/info-resources/ewc3/Global-Survey-of-Early-Warning-Systems.pdf

UNDP-SA (UNDP in South Africa) (2012). *UNDP's role & MDGs in South Africa*. Retrieved October 25, 2015, from http://www.za.undp.org/content/south_africa/en/home/mdgoverview.html

UNISDR (United Nations International Strategy for Disaster Reduction) (2004). *Note On Terminology from The WCDR Conference Secretariat to the Drafting Committee (18/11/2004*). Retrieved September 12, 2014, from http://www.unisdr.org/2005/wcdr/intergover/drafting-committe/terminology.pdf

UNISDR (United Nations International Strategy for Disaster Reduction) (2005). *Hyogo Framework for Action 2005–2015: building the resilience of nations and communities to disasters*. World Conference on Disaster Reduction in Kobe, Japan, 18–22 January 2005. United Nations, A/CONF.206/6. Retrieved on February 10, 2014 from http://www.unisdr.org/eng/hfa/hfa.htm.

Van Rooyen, C., De Wet, T., Marais, I., & Korth, M., Thaba, M. & Mchunu, S. (2009). *Johannesburg Case Study, The Water Dialogues.* Retrieved September 25, 2016, from http://www.waterdialogues.org/south-africa/documents/JohannesburgCaseStudy-FullReport.pdf

Wafer, A., Dugard, J., Ngwenya, M. & Sibanda, S. (2008) *A tale of six buildings: The lived-reality of poor people's access to basic services in Johannesburg's inner city*. Johannesburg: Centre for Applied Legal Studies (CALS), Wits.

Webb, J. R. (1987). *An Evaluation of Igor Ansoff´s Theory of Weak Signal Management by Means of an Investigation and Forecast of Future Development in the Ophthalmic Laser Environment.* Unpublished Doctoral thesis, University of Strathclyde, United Kingdom.

Weber, M. (1958). *The Protestant Ethic and The Spirit of Capitalism*. Talcott Parsons (trans.). New York: Charles Schribner's Sons.

Weiss, C. H. (1995). *Nothing as practical as good theory: Exploring theory-based evaluation for comprehensive community initiatives for children and families*. In J. P. Connell, A. C. Kubisch, L. B. Schorr, & C. H. Weiss (Eds.), New approaches to evaluating community initiatives: Concepts, methods and contexts (pp. 65–92). Washington, DC: The Aspen Institute.

Weschke, H. R. (1994). Early Warning Signs of Risk Companies. *Economic Development Review*, 66 - 67.

Wild, L., Chamers, V., King, M. & Harris, D. (2012). *Common constraints and incentive problems in service delivery*. Overseas Development Institute (ODI) Working paper 351. Retrieved May 21, 2013, from http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7791.pdf

Williams, J. J. (2006). Community participation: Lessons from post-apartheid South Africa. *Policy Studies*, 27(3), 197-217

Wilson, D. (2002). *Monitoring and Evaluation Operations Manual*. A peer-reviewed manual prepared for UNAIDS National Aids Councils). Geneva: UNAIDS (Joint United Nations Programme on HIV/AIDS).

Wilson, S. (2012). *Proactive vs Reactive: How to prevent problems instead of fixing them faster*. Retrieved September 25, 2016, from http://apmblog.dynatrace.com/2012/07/12/proactive-or-reactive-a-guide-to-prevent-problems-instead-of-fixing-them-faster/

Wittenberg, M. (2003). *Decentralisation in South Africa*. Retrieved January 15, 2012, from http://sticerd.lse.ac.uk/dps/decentralisation/southafrica.pdf

Wodzicki, M, (2007). *Public Sector Reform and Democracy Assistance: A Literature Review*. A working paper- centre for the study of democracy, Queen university, London.

Wolcott, H. (1988). Ethnographic Research in Education. In R. Jaeger (Ed.), *Complementary Methods for Research in Art Education* (pp. 187-206). Washington, DC: American Education Research Association.

Wood, M. (2014) *Political Alienation in American Society*. Honors College Thesis submitted to the Sociology Department, University of Vermont. Retrieved on September 16, 2016 from http://scholarworks.uvm.edu/hcoltheses/38/

Woodhill, J. (2005). M&E as learning: Rethinking the dominant paradigm. Book Chapter prepared for: Monitoring and Evaluation of Soil Conservation and Watershed Development Projects to be printed by World Association of Soil and Water Conservation, 2005. Retrieved on December 22, 2013 from www.capfida.mg/km/atelier/wageningen/download/Jour2/ME%2520as%2520Learning%2520%2520-%2520%2520Woodhill%2520%2520.doc

World Bank (1997). *World Development Report 1997: The State in a Changing World*, New York: Oxford University Press/World Bank.

World Bank (2000). *The Logical Framework Handbook*. Washington, D.C.: World Bank.

World Bank (2002). *Monitoring & Evaluation: Some Tools, Methods & Approaches*. Washington, D.C.: World Bank.

World Bank (2003). *World Development Report 2004. Making Services Work for Poor People*. Washington D.C.: World Bank. Retrieved February 14, 2012, from http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2003/ 10/07/000090341_20031007150121/Rendered/PDF/268950PAPER0WDR02004.pdf

World Bank (2011). *Accountability in Public Services in South Africa: Selected Issues*. Washington: The World Bank. Retrieved on January 20, 2011, from http://siteresources.worldbank.org/INTSOUTHAFRICA/Resources/Accountability_in_Public_Services_in_Africa.pdf

World Economic Forum (2015). *The Global Competitiveness Index 2014/2015*.

Wormuth, F. D. (1949).The Origins of Modern Constitutionalism. New York: Harper & Brothers.

Wright, J. D. (1981) Political disaffection, in S. L. Long, *The handbook of political behaviour, Vol 4*. New York: Plenum Press, p. 1-79.

WSP–SA (Water and Sanitation Program–South Asia) (2009). Nonrevenue Water Management in South Asia: Issues and Challenges. New Delhi: Water and Sanitation Program–South Asia, World Bank. Retrieved September 20, 2014, from www.wsp.org

Yeager, S. J. (1989). Classic Methods in Public Administration Research. In J. Robin., W. B. Hildreth, & G.I. Miller (Eds.) *Handbook of Public Administration* (pp. 683-793). New York: Dekker.

Yin, R. (1984). *Case study research: Design and methods.* Newbury Park, CA: Sage. Retrieved August 15, 2009, from http://www.gslis.utexas.edu/~ssoy/usesusers/ l391d1b.htm

Yin, R. (1989). *Case Study Research*. California: Sage.

Yin, R. (2003). *Case study: Research; Design and Methods*. London: Sage.

Zaffron, S. & Logan, D. (2009). *Three Laws of Performance: Rewriting the Future of Your Organization and Your Life*. San Francisco: Jossey-Bass.

Zitek, N. (2015). ITIL Reactive and Proactive Problem Management: Two sides of the same coin. Retrieved September 25, 2016, from http://advisera.com/20000academy/knowledgebase/itil-reactive-proactive-problem-management-two-sides-coin/

Zuma, J. (2009). *We Have to do Things Differently*. (An interview with the Time, on 26 November 2009. Retrieved December 15, 2009, from http://www.time.com/ time/world/article/0,8599,1943120,00.html

Zwane, G. (2015). Resident gives City Power a helping hand. *Sandton Chronicle* (Weekly Community Newspaper) Week ending 22 May 2015. p.3.

“Education never ends, Watson. It is a series of lessons with the greatest for the last. This is an instructive case. There is neither money nor credit in it, and yet one would wish to tidy it up. When dusk comes we should find ourselves one stage advanced in our investigation.”

Sherlock Holmes

In *The Adventure of the Red Circle*
by Sir Arthur Conan Doyle