

**ASSESSING THE E-READINESS OF THE SOUTH AFRICAN SOCIAL
SECURITY AGENCY (SASSA) REGIONAL OFFICE WESTERN CAPE
AND ITS CUSTOMERS**

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Degree of Master of Public Administration at Stellenbosch University**



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DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained herein is my own, original work, that I am the owner of the copyright thereof (unless to the extent explicitly otherwise stated) and that I have not previously in its entirety or in part submitted it for obtaining any qualification

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ABSTRACT

e-Governance refers to the utilisation of technology to improve on service delivery, sharing of information, client participation as well as to advance government through the transformation of its internal and external relationships (Shilubane, 2001:40). e-Governance further implies that government disseminates information and renders services to the public through “electronic means” (Manohar, Pulapa and Mellam, 2009:243). On the other hand, e-government is not entirely about electronic service delivery, but part of the continuous restructuring of government to ensure participation from its partners for improved efficacy and success. Therefore e-government is participatory in nature when implemented correctly. This study assesses and evaluates the current infrastructure and current e-initiatives of the South African Social Security Agency (SASSA) Regional Office Western Cape and the extent to which the agency and its customers are ready to adopt e-government.

The e-Governance Road Map (ERM) developed by Ernst & Young India for the New Delhi government was used to guide the researcher to assess the level of e-readiness of the SASSA Regional Office Western Cape. The Information and Communication Technology manager and customer care manager of the SASSA Regional Office Western Cape were interviewed and the beneficiaries of SASSA were requested to participate in the completion of questionnaires. The study found that the customers of SASSA were not as interested in electronic services as in mobile services such as reminders and notifications through short message service (SMS). There are, however, several impediments at SASSA such as an adoption of e-government and m-government, low budget for information and communication technology (ICT) as well as to conduct research among a larger group of SASSA customers. The study mainly recommends that the SASSA Regional Office Western Cape conduct a research study on a larger scale than this research study and to determine the needs of customers in respect of e-services and m-services. Should the agency decide to conduct an e-readiness assessment, the National e-Government Plan (NeGP) of India could be a useful guideline for the implementation of e-governance. The research study strongly

recommends that SASSA develops a capacity-building roadmap for the successful implementation of e-governance.

OPSOMMING

e-Regering verwys na die benutting van tegnologie om te verbeter op dienslewering, die deel van inligting, die kliënte deelname te versterk, sowel as om die regering te bevorder deur die transformasie van interne en eksterne verhoudings (Shilubane,2001:40). e-Regering impliseer verder dat die regering inligting versprei en dienste lewer aan die publiek deur middel van "elektroniese metodes" (Manohar, Pulapa en Mellam, 2009:243). Aan die ander kant, e-regering het nie slegs betrekking tot elektroniese dienslewering nie, maar sluit ook in die deurlopende herstrukturering van die regering om deelname van sy vennote te verseker om doeltreffendheid en sukses te bewerkstellig. e-Regering word dus as deelnemend beskou wanneer dit korrek geïmplementeer word. Hierdie studie bepaal en evalueer die huidige infrastruktuur en e-inisiatiewe van die Suid Afrikaanse Agentskap vir Maatskaplike Sekerheid (SAAMS) Streekkantoor Wes-Kaap en die mate waarin die agentskap en sy kliënte gereed is om e-regering aan te neem.

Die e-regering kaart wat ontwikkel is deur Ernst en Young Indië vir die Nieu-Delhi regering was gebruik as riglyn om die vlak van e-gereedheid van die SAAMS Streekkantoor Wes-Kaap te bepaal. Onderhoude was gevoer met die Inligting en Kommunikasie tegnologiebestuurder en die kliëntediensbestuurder van die SAAMS Streekkantoor Wes-Kaap en die begunstigdes van SAAMS was versoek om deel te neem in die voltooiing van vraelyste. Die studie het bevind dat die kliënte van SAAMS nie werklik belangstel in elektroniese dienste nie, maar intendeel aan mobiele dienste, onder andere kennisgewings deur middel van 'n kort boodskap diens. Daar is egter verskeie hindernisse wat die aanvaarding van e-regering en m-regering bemoeilik soos byvoorbeeld 'n lae begroting vir inligting en kommunikasie tegnologie (IKT) asook om navorsing te doen onder 'n groter groep van SAAMS kliënte. Die studie beveel hoofsaaklik aan dat SAAMS Streekkantoor Wes-Kaap 'n navorsingsprojek doen op 'n groter skaal as hierdie navorsing en die behoeftes van kliënte ten opsigte van e-dienste en m-dienste te bepaal. Indien die agentskap besluit om 'n e-gereedheid assessering uit te voer, word die Nasionale e-Regering Plan (NeGP) van Indië aan beveel as 'n nuttige

riglyn vir die implementering van e-regering. Die navorsing beveel sterk aan dat SAAMS 'n vermoë-opbouplan vir die suksesvolle implementering van e-regering ontwikkel.

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TABLE OF CONTENT

| | |
|--|------|
| DECLARATION..... | i |
| ABSTRACT | ii |
| OPSOMMING | iv |
| ACKNOWLEDGEMENTS | vi |
| LIST OF TABLES..... | xi |
| LIST OF ACRONYMS AND ABBREVIATIONS..... | xii |
| GLOSSARY | xiii |
| CHAPTER 1: INTRODUCTION AND PROBLEM STATEMENT | 1 |
| 1.1 Introduction..... | 1 |
| 1.1.1 e-Governance | 1 |
| 1.1.2 e-Governance in South Africa | 2 |
| 1.1.3 Challenges regarding the implementation of e-government in South Africa..... | 3 |
| 1.1.4 Population and internet demographics of South Africa | 4 |
| 1.1.5 The establishment of the South African Social Security Agency | 7 |
| 1.2 Potential value of the study..... | 10 |
| 1.3 Research statement | 10 |
| 1.4 Objectives of the study | 11 |
| 1.5 Research design..... | 12 |
| 1.6 Methodology | 13 |
| 1.6.1 Conceptualisation and measurement..... | 13 |
| 1.6.2 Data collection | 13 |
| 1.6.3 Analysis..... | 14 |
| 1.6.4 Scope and limitations..... | 14 |
| 1.7 Chapter outline..... | 15 |
| 1.8 Summary..... | 16 |
| Chapter 2: THEORETICAL FRAMEWORK..... | 18 |
| 2.1 Introduction..... | 18 |
| 2.1.1 e-Government policies, service delivery and e-readiness context..... | 19 |
| 2.1.1.1 e-Government policies | 19 |
| 2.1.1.2 Service Delivery | 24 |
| 2.2 Key Concepts..... | 26 |
| 2.2.1 e-Governance | 26 |

| | |
|--|-----------|
| 2.2.2 e-Government..... | 28 |
| 2.2.2.1 Types of e-government services | 30 |
| 2.2.2.2 Goals, benefits and challenges of e-government..... | 31 |
| 2.2.3.1 e-Readiness..... | 35 |
| 2.2.3.2 e-Readiness goals and objectives..... | 38 |
| 2.2.3.3 e-Readiness processes..... | 40 |
| 2.2.3.4 e-Readiness framework | 41 |
| 2.2.3.5 Benefits of e-readiness assessments | 42 |
| 2.2.3.6 Limitations of e-readiness assessments | 43 |
| 2.2.3.7 e-Readiness context..... | 44 |
| 2.3 e-Services and Aspects thereof | 47 |
| 2.3.1. Reasons for using e-services | 48 |
| 2.3.2 Examples of e-services | 48 |
| 2.3.2.1 e-Communication | 48 |
| 2.3.2.2 e-Participation..... | 49 |
| 2.3.2.3 Types of e-government transactions..... | 50 |
| 2.3.2.4 e-Democracy | 50 |
| 2.3.2.5 e-Administration | 51 |
| 2.3.2.6 e-Learning and e-education | 51 |
| 2.3.2.7 e-Security | 53 |
| 2.4 m-Services..... | 53 |
| 2.5 The global and national examples | 54 |
| 2.5.1 International examples of e-government initiatives..... | 54 |
| 2.5.2 National e-government initiatives..... | 59 |
| 2.6 Summary..... | 66 |
| CHAPTER 3: THE E-READINESS MODEL | 68 |
| 3.1 Introduction..... | 68 |
| 3.2 e-Readiness measuring tools | 69 |
| 3.2.1 Economist Intelligence Unit (2010)..... | 72 |
| 3.2.2 Gartner's four-stage model | 73 |
| 3.2.3 e-Government readiness assessment model | 74 |
| 3.2.4 e-Government capability maturity assessment framework..... | 77 |

| | |
|--|------------|
| 3.2.5 Delhi government e-readiness measuring tool: e-Readiness roadmap of India..... | 79 |
| 3.3 Aspects to consider when conducting an e-readiness assessment..... | 82 |
| 3.4 Combined model as suggestion for SASSA Regional Office Western Cape | 82 |
| 3.5 Summary..... | 85 |
| CHAPTER 4: THE SASSA REGIONAL OFFICE WESTERN CAPE: A CASE STUDY | 86 |
| 4.1. Introduction..... | 86 |
| 4.2 The South African Social Security Agency (SASSA)..... | 87 |
| 4.3 Legislative mandate of SASSA | 88 |
| 4.4 Vision, mission and values of SASSA..... | 88 |
| 4.5 The organisational structure of SASSA Regional Office Western Cape | 89 |
| 4.6 Services rendered by SASSA..... | 91 |
| 4.6.1 Provision of grants | 91 |
| 4.6.2 Integrated Community Registration Outreach Programme (ICROP) | 93 |
| 4.7 Monitoring and evaluation at SASSA | 95 |
| 4.7.1 Background of the Monitoring and Evaluation Department of SASSA | 95 |
| 4.7.2 Statistics for June 2010 | 96 |
| 4.8 SASSA website..... | 97 |
| 4.9 Summary..... | 98 |
| CHAPTER 5: DATA GATHERING AND ANALYSIS | 100 |
| 5.1 Introduction..... | 100 |
| 5.2 Key variables..... | 100 |
| 5.3 The unit of analysis: a brief description of context | 100 |
| 5.4 Sampling design and sampling methods..... | 102 |
| 5.5 Conceptualisation of data..... | 103 |
| 5.6 Data-collection methods..... | 103 |
| 5.6.1 Secondary data..... | 103 |
| 5.6.2 Primary data..... | 104 |
| 5.7 Data analysis and verification..... | 106 |
| 5.8 Summary..... | 106 |
| CHAPTER 6: RESEARCH FINDINGS | 108 |
| 6.1 Introduction..... | 108 |
| 6.2 Research results..... | 109 |
| 6.2.1 Interview results: ICT Manager | 109 |

| | |
|---|-----|
| 6.2.2 Questionnaire for the customer care manager | 119 |
| 6.2.3 Questionnaire results of SASSA Customers..... | 123 |
| 6.2.3.1 Child-support grant | 123 |
| 6.2.3.2 Disability grant..... | 130 |
| 6.2.3.3 Old-age grant..... | 136 |
| 6.2.4 Average Results of Customer Questionnaires..... | 142 |
| 6.3 Interpretations of results | 147 |
| 6.4 Conclusion | 150 |
| CHAPTER 7: SUMMARY, RECOMMENDATIONS AND CONCLUSION | 152 |
| 7.1 Summary of study..... | 152 |
| 7.1.1 Introduction..... | 152 |
| 7.1.2 Theoretical framework | 153 |
| 7.1.3 e-Readiness tool..... | 153 |
| 7.1.4 Data gathering and analysis | 153 |
| 7.1.5 Research findings..... | 154 |
| 7.2 Summary of findings | 154 |
| 7.2.1. Objective 1: Provision of electronic services..... | 154 |
| 7.2.2. Objective 2: Sustainable Infrastructure..... | 155 |
| 7.2.3. Objective 3: Computer Literacy..... | 156 |
| 7.2.4. Willingness to use e-services | 156 |
| 7.3 Recommendations | 158 |
| 7.4 Conclusion | 160 |
| REFERENCES..... | 161 |
| APPENDICES | 175 |
| APPENDIX A: EIU e-Readiness rankings and scores, 2009 | 175 |
| APPENDIX B: EIU Digital Economy Rankings 2010..... | 178 |
| APPENDIX C: Assessment tools..... | 181 |
| APPENDIX D: Internet Usage and Statistics for Africa..... | 182 |
| APPENDIX E. e-Readiness Questionnaire for SASSA ICT Manager | 184 |
| APPENDIX F. Questionnaire for Customer Care Manager at SASSA Western Cape | 188 |
| APPENDIX G. Questionnaire for SASSA Customers | 189 |

LIST OF TABLES

| | |
|---|----|
| Table 1: Mid-year population estimates by province, 2010 | 5 |
| Table 2: Nielsen Online demographic statistics for South African websites | 7 |
| Table 3: e-Governance vs. e-Government | 27 |
| Table 4: EIU 2009 e-readiness rankings | 45 |
| Table 5: EIU 2010 digital economy rankings | 46 |
| Table 6: South Africa: Internet usage and marketing | 59 |
| Table 7: Internet Usage Statistics for Africa | 60 |
| Table 8: e-Readiness Assessment Tools used in South Africa | 71 |
| Table 9: Number of grants by grant type and region | 97 |

LIST OF FIGURES

| | |
|---|-----|
| Figure 1: e-Readiness | 35 |
| Figure 2: e-Readiness Framework | 41 |
| Figure 3: UK Pension Services Website..... | 56 |
| Figure 4: The Social Security Online Website (USA) | 58 |
| Figure 5: e-Readiness Process | 70 |
| Figure 6: Gartner's four-stage model..... | 74 |
| Figure 7: Combined Model for SASSA Regional Office Western Cape..... | 84 |
| Figure 8: Organisation and establishment: SASSA Regional Office Western Cape..... | 91 |
| Figure 9: Payment methods | 93 |
| Figure 10: ICROP SASSA Truck..... | 94 |
| Figure 11: ICROP: Inside the truck | 95 |
| Figure 12: SASSA services as on their website | 98 |
| Figure 13: CSG age distribution | 124 |
| Figure 14: CSG grant application awareness..... | 125 |
| Figure 15: CSG turnaround time of grants | 126 |
| Figure 16: CSG literacy | 127 |
| Figure 17: CSG internet awareness | 128 |
| Figure 18: CSG e-services | 129 |
| Figure 19: CSG customer satisfaction..... | 130 |

| | |
|--|-----|
| Figure 20: DG age distribution | 131 |
| Figure 21: DG grant application awareness | 131 |
| Figure 22: DG turnaround time of grants..... | 132 |
| Figure 23: DG literacy | 133 |
| Figure 24: DG internet awareness | 134 |
| Figure 25: DG e-services | 135 |
| Figure 26: DG customer satisfaction | 136 |
| Figure 27: OAG age distribution..... | 137 |
| Figure 28: OAG grant application awareness..... | 137 |
| Figure 29: OAG turnaround time | 138 |
| Figure 30: OAG literacy..... | 139 |
| Figure 31: OAG internet awareness | 140 |
| Figure 32: OAG e-services..... | 141 |
| Figure 33: OAH customer satisfaction..... | 142 |
| Figure 34: Average age, grant knowledge, grant processing time line and education distribution..... | 143 |
| Figure 35: Average Literacy, computer literacy and internet awareness and usage distribution..... | 145 |
| Figure 36: Average payment, Notification, Queries and Customer Service Distribution | 146 |

LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|-------|---|
| 3G | Third generation |
| CPU | Central Processing Unit |
| DPSA | Department of Public Service and Administration |
| e-Gov | Electronic Government |
| Email | Electronic mail |
| GDP | Gross Domestic Product |
| G2B | Government-to-business |
| G2C | Government-to-citizen |
| G2E | Government-to-employee |

| | |
|---------|--|
| G2G | Government-to-government (all levels) |
| ICT | Information and communication technology |
| ISDN | Integrated Services Digital Network |
| IT | Information Technology |
| LAN | Local Area Networks |
| OSS | Open Source Software |
| M/WT | Mobile and/or wireless technology |
| NGO | Non-governmental organisation |
| PGWC | Provincial Government Western Cape |
| RSA | Republic of South Africa |
| SA | South Africa |
| SAAMS | Suid Afrikaanse Agentskap vir Maatskaplike Sekerheid |
| SARS | South African Revenue Services |
| SITA | State Information Technology Agency |
| SMME | Small and Medium Enterprises |
| SMS | Short message service |
| StatsSA | Department of Statistics |
| UK | United Kingdom |
| UN | United Nations |
| UNDP | United Nations Development Programme |
| UNPAN | United Nations Public Administration Network |
| USA | United States of America |
| VPN | Virtual privacy network |
| WAN | Wide Area Networks |
| WWW | World Wide Web |

GLOSSARY

| | |
|--------------|---|
| e-Government | All electronic government technologies and services. |
| e-Readiness | Extent to which e-services can be deployed. |
| e-Service | Any electronic service delivered to a client or an organisation by means of information and communication technology. |

| | |
|--------------|---|
| m-Government | All mobile government technologies and services. |
| m-Readiness | Extent to which m-services can be deployed. |
| m-Services | Refers to mobile services rendered to clients or organisations through mobile and/or wireless technology. |

CHAPTER 1: INTRODUCTION AND PROBLEM STATEMENT

1.1 Introduction

The Economist Intelligence Unit (EIU, 2009:6) mentions that since it started studying the role of information and communication technology (ICT) in driving the e-readiness of the world's economies, there has been a significant change in the availability and distribution of digital technology around the world. There has also been a rapid growth in the number of digital access devices and the availability of digital services. The EIU is of the opinion that the digital economy is now firmly connected to the "real" economy. This chapter will explore and provide a background on the concept of e-governance and its relevance to this study.

1.1.1 e-Governance

Shilubane (2001:40) defines e-governance as the "continuous optimization of government service delivery, constituency participation, and governance by transforming internal and external relationships through technology, the internet and new media". Petersen (2005:3) further explains that the State Information Technology Agency (SITA) adds to the above definition of e-governance by emphasising the importance of considering the needs of clients and aligning services accordingly. Lesame (2005:193) agrees and adds that electronic services should be available at any time and at any place to customers. As a result, long queues will be replaced with online services. What Lesame refers to as the availability of electronic services to all is highlighted in the Batho Pele ("people's first") principles of the South African government. "Batho Pele is a Sotho translation which means 'People First' (DPSA, 2001b:1). The aim of the Batho Pele Handbook was to get staff to render a quality service and to constantly improve on service delivery for the benefit of the citizens of South Africa. These principles make it possible for the citizens to keep the public servants accountable for the level of services they render.

Msimang (as cited in Petersen, 2005:3) also agrees and elaborates on how e-government can increase the participation and interaction of citizens with government.

The Department of Public Service and Administration (DPSA) (2001a:4) advises that e-government initiatives address the following key issues. The first relates to e-governance, which refers to the application of information and communication technology (ICT) to internal government and between national, provincial and local governments. These interactions occur electronically and exclude the use of any paper. The second issue refers to e-services, which relates to the application of ICT to change the services to the public from them having to stand in queues to being able to access services online. The last issue is e-business, which refers to the application of ICT to produce business-to-business transactions, and other contractual relations that include electronic tender and electronic payment.

Docktor (2001:Slide 6) defines e-readiness as the ability to participate in the global digital economy, which is a prerequisite for e-government, e-commerce and e-development. The author further explains that e-readiness can be assessed in terms of five attributes: connectivity, e-leadership, information security, human capital and the e-business climate. The next section will describe e-governance in South Africa.

1.1.2 e-Governance in South Africa

DPSA is responsible for the management of utilisation of information technology within the entire government of South Africa as well as the supervision of the State Information Technology Agency (SITA) as mentioned in (DPSA, 2001a:13). SITA was established in 1999 to assist with the transformation of government departments and agencies; to provide recommendations in respect of ICT related matters while also supporting these departments to remain focused on their key operations. The government departments therefore consult SITA when in need of assistance to achieve their outputs while SITA networks with appropriate solution partners in this regard. Petersen (2005:16) further adds that the mandate of SITA was to also strengthen and coordinate the ICT resources of government to bring about improved services with the aim of achieving e-government.

In 1999 South Africa developed its public sector policy to improve service delivery of government. DPSA (2001a:7) suggests that any organisation should first identify the needs of its customers and then determine how it should make use of ICT to achieve economic and effective e-government. The ICT applications can only be of value if its users derive the benefits of increased productivity, cost effectiveness and improved service delivery. Petersen (2005:3) questions the relevance of e-government in South Africa, since a major segment of communities' still lack basic needs such as housing, electricity and water. DPSA (2001a:5) acknowledges the challenges associated to implementing e-government and highlights the fact that implementing e-government is an enormous task for both developed and developing countries. DPSA (2001a:5) is further of the opinion that in order for e-government to materialise, countries need a high-quality communication infrastructure, reasonably priced computers and appliances, inexpensive and quick access to the internet, as well as relevant legislation. Capacity building of employees in terms of ICT, marketing and customer relationship management are considered as important for the successful implementation of e-government. DPSA (2001a:5) highlights that even if an organisation has built an internet portal, this does not necessarily imply that customers will utilise its online services.

1.1.3 Challenges regarding the implementation of e-government in South Africa

Lesame (2005:197-198) mentions that there are several challenges to implementing e-government in South Africa:

- There is a need for technically skilled persons to manage and maintain the technology in government sectors. There are limited financial resources and energy to sustain the infrastructure of the country and it is imperative that South Africa enhances its service delivery and technical skills;
- South Africa should also improve in terms of research and development of the ICT infrastructure of government;
- There are eleven official languages in South Africa and it is therefore essential that services be delivered in the language of the applicant. South Africa is characterised by a high level of illiteracy. According to StatsSA (2009a) the percentage of persons

aged 20 years and older, who have completed a secondary and/or higher level of education, has remained unchanged over the last six years. Approximately 28% of the population in the abovementioned age group completed secondary education. The percentage of the population in this age bracket with no schooling declined from 17.9% in 2001 to 10.3% in 2007;

- Less than 5% of South African citizens own a computer and less than 3% have access to the internet, making it crucial that South Africa address the digital literacy of its citizens; and
- Lastly, ICT equipment remains generally unaffordable to the majority of South African citizens. This can pose a challenge as organisations tend not to purchase ICT equipment due to the high cost which can delay the implementation of e-government.

One can therefore reason from the above paragraph that the lack of skilled ICT government employees, low literacy levels citizens together with their lack of internet connection, all brings about major challenges for the implementation of e-government in South Africa. The following paragraph briefly discusses the population demographics of South Africa.

1.1.4 Population and internet demographics of South Africa

Statistics South Africa (StatsSA, 2009a) conducted a community survey in February 2007 in all the provinces of South Africa. The objectives of this survey were to provide demographic and socio-economic data at municipal level. The number of persons in the study numbered 949,105 and a total of 246,618 households were visited. The census revealed that the population of South Africa increased from 40.5 million in 1996 to 44.8 million in 2001. In 2010, Statistics South Africa (StatsSA) estimates the mid-year population to be 49.99 million according to the Department of Statistics (2010:3). The department further estimates that approximately 25.66 million of the population is female which is 51% of the population. In South Africa, Gauteng is the province that comprises of the largest population with an estimated 11.19 million people (22.4%). This is followed by the province KwaZulu-Natal with the second largest population of 10.65

million people (21.3%) living in this province. The Northern Cape is still the province with the smallest percentage of the population with about 1.10 million people (2.2%). Table 1 provides the population estimates as per the province in South Africa.

Table 1: Mid-year population estimates by province, 2010

| Province | Population estimate | Percentage share of the total population |
|-----------------|----------------------------|---|
| Eastern Cape | 6, 743, 800 | 13.5 |
| Free State | 2, 824, 500 | 5.7 |
| Gauteng | 11, 191, 700 | 22.4 |
| KwaZulu-Natal | 10, 645, 400 | 21.3 |
| Limpopo | 5, 439, 600 | 10.9 |
| Mpumalanga | 3, 617, 600 | 7.2 |
| Northern Cape | 1, 103, 900 | 2.2 |
| North West | 3, 200, 900 | 6.4 |
| Western Cape | 5, 223, 900 | 10.4 |
| Total | 49, 991, 300 | 100.0 |

Source: Stats SA (2010:4)

The mid-year population estimates for 2010 also reflect that the majority of the population comprise of Black Africans who are approximately 39.68 million which is more than 79% of the total population of South Africa. The White population is estimated at 4.58 million followed by the Coloured population who constitute 4.42 million of the populations and lastly, the Indian/Asian population with an approximate number of 1.30 million.

MyBroadband (2009a) explains that the internet first arrived in South Africa in 1988, when a group of people (Francois J. Guillarmod, D. Wilson and M. Lawrie) established a sustainable e-mail link between Rhodes University and a home in Oregon, United States of America. By the mid-1990's South Africa had become one of the most connected countries in the world. This growth was, however, not sustained.

MyBroadband (2009a) explains that between 2000 and 2008 South Africa added approximately 2.7 million new subscribers to its internet user base in comparison to the 10 million added by Nigeria, 8 million from Egypt, 7 million from Morocco and 3 million from Kenya. MyBroadband (2009a) mentions that a survey conducted by Research ICT Africa found that 14.7% of South African households have a computer, while only 4.7% households have a working internet connection. Research ICT Africa is of the opinion that this compares disappointingly to the average world internet penetration rate of 21.9%, with more than a fifth of the world's people having access to the internet, except Africa. In an attempt to understand slow growths in internet use, the Internet Service Providers' Association of South Africa (ISPA) focused on possible factors impeding internet growth in South Africa making reference to the absence of regulatory certainty in respect of issues such as license fees, spectrum licensing, interconnection and local "loop unbundling" (MyBroadband, 2009a). Responsibilities relating to the regulation, management, development and sustainability of the information technology of South Africa rest with the DPSA (Shilubane, 2001:44).

MyBroadband (2010) is of the opinion that internet usage in South Africa is on the increase and further mentions that according to the 2010 study conducted by the World Wide Worx on the Internet Access in South Africa, there are more than 5-million internet users. The research also indicates that the internet user base of South Africa grew by 15% in 2009, from 4.6-million to 5.3-million. The study predicts that the 2010 growth rate in terms of internet usage will be similar to that of 2009. There is also an increase in the number of people accessing the internet through the use of mobile devices according to the mobile internet in South Africa 2010 report (MyBroadband, 2010). This report estimates that there are approximately 3.36-million people who make use of their mobile phones to browse the web. Goldstuck (as cited in MyBroadband, 2010) mentions that there has been a rapid increase in the use of mobile internet services in South Africa despite the fact that less than half of the cellphone users with internet-capable phones make use thereof. The table below depicts the latest Nielsen Online demographic statistics for South African websites.

Table 2: Nielsen Online demographic statistics for South African websites

| Where do you live? | | Population Group | | Age Group | |
|--------------------|------|------------------|-----|-----------|------|
| Johannesburg | 29% | White | 63% | Under 15 | 0.2% |
| Cape Town | 17% | Black | 25% | 16 – 19 | 1.7% |
| Pretoria | 14% | Coloured | 7% | 20 – 24 | 11% |
| Durban | 6.6% | Indian | 5% | 25 – 34 | 31% |
| Other Gauteng | 5.5% | | | 35 – 44 | 25% |
| Other Western Cape | 4.8% | | | 45 – 49 | 9.5% |
| | | | | 50 – 54 | 7.8% |
| | | | | 55 – 64 | 9.9% |
| | | | | 65+ | 3.9% |

Source: MyBroadband (2010)

The results from the Nielsen online demographic statistics reflect that the majority of the persons consulted in this study are from the white population group residing in Johannesburg. It is also interesting to find that the majority of the internet users in Durban are between the ages of 25 to 34 years followed by the age group 35 to 44 years in other areas of Gauteng. Although not mentioned in the table above, 16.3% of the interviewees preferred not to mention their monthly income salary before tax deductions. Since both the population and internet demographics of South Africa have been discussed, the following paragraph will provide an overview of the establishment of SASSA since it is the focus of this study.

1.1.5 The establishment of the South African Social Security Agency

Poverty Reduction was one of the programmes of the Department of Social Development (DSD). DSD also played a role in the process of establishing the South African Social Security Agency (SASSA). DSD received a conditional grant from 1 April 2005 for social security as part of the centralisation of the social security function of SASSA. With the establishment of SASSA, DSD realised the importance of the

transformation of the department to become more accessible to all communities (DSD, 2004:6). DSD as a result, assessed its strategic direction and redefined its core business to also align it with the provincial vision which was iKapa Elihlumayo, which means “a home for all”. The department developed a strategic outlook for the period of 2005 until 2009. The vision was retained, while the mission statement was amended and new strategic goals formulated. DSD submitted its strategic plan in March 2005 and identified the following areas of intervention:

- Services to the disabled;
- Integrated provincial poverty reduction strategy;
- Early childhood development;
- Youth development;
- Increased accessibility of government services, information and resources;
- Integrated response to HIV/Aids;
- Research agenda;
- Services to children and families; and
- Substance abuse services.

The exit of the social security programme from DSD has led to the promulgation of the South African Social Security Agency Act 2004 (DSD, 2006:63). As a result, the administration of social assistance grants became the responsibility of the South African Social Security Agency (SASSA) after 1 April 2006, with the exclusion of the social relief function. The new Social Assistance Act, Act 13 of 2004 provides a national legislative framework and prescribes that a national agency should provide different types of social assistance grants and should establish an Inspectorate for Social Security. The South African Social Security Act, Act 9 of 2004 made provision for the establishment of SASSA as a Schedule 3A public entity in terms of the Public Finance Management Act (PFMA). The South African Social Security Agency Act also holds SASSA accountable for efficient management, administration and payment of the social assistance grants. This Act was signed by the President of South Africa on 28 May 2004.

The separation of the social security function presented great challenges to the Department of Social Development. DSD as a result had to revise its core business and prioritise accordingly. To facilitate this process the Provincial Department of Social Development Western Cape and SASSA signed a Memorandum of Understanding (MOU) and a Service Level Agreement (SLA) on 27 March 2006. The purpose of the SLA was to ensure that the Provincial Department of Social Development would render corporate support services to SASSA until 31 March 2007 or in anticipation of the independence of SASSA (DSD, 2006:25). DSD was successful in terms of dividing these functions between itself and SASSA with the support and assistance of skilled staff.

SASSA (2009a) explains that its mission is to “ensure an effective social grants administration system, successful payment of grants and efficient services to the public inclusive of easy access to channels through modern technology”. SASSA provides seven types of grants, namely Old Age Grant, Disability Grant, War Veterans Grant, Child Grant (consists of Foster Child Grant, Child Dependency Grant and Child Support Grant), Care Dependency Grant, Child Support Grant and Grant in Aid. Information pertaining to the different types of grants, addresses of SASSA offices and the relevant documentation for applications are available on the SASSA website.

The mission of SASSA takes into consideration the importance of modern technology in providing efficient services. However, this reference to utilising modern technology poses several challenges to SASSA, in relation to providing and promoting electronic services among all beneficiaries. Lesame (2005:197-198) describes the possible challenges suggesting that consideration should be given to the level of technical, digital and other illiteracy in South Africa. Additionally, services should be rendered in the language of the customer and further consideration should be given to the limited financial resources which are needed to sustain the infrastructure of the country.

1.2 Potential value of the study

The focus of the research study is on the assessment of the e-readiness of the SASSA Regional Office Western Cape and its customers in respect of electronic service delivery. Studies such as this can play an important role in the improvement of public services through innovative approaches. The study adds to e-government knowledge by discussing the challenges and limitations experienced in the public sector in respect of service delivery. The study aims to expand on the knowledge base of e-government and e-services and this information can be used by more researchers.

The level of e-readiness of the agency will provide SASSA National Office with an indication as to what are already in place, challenges and also opportunities presented by e-services. This will assist SASSA to implement such services at all its offices in all the provinces. The study also recommends possible interventions as a way forward for the agency regarding the implementation of e-services.

1.3 Research statement

The Department of Social Development, in collaboration with other departments, renders services to people who are unable to meet their basic needs (DSD, 2006:8). The challenges mentioned in the previous paragraph as well as the average of 4.7% households with a working internet in South African households indicate that a small percentage of South Africans have access to the internet (MyBroadband, 2009a). The researcher is of the opinion that the customers of SASSA are not included in the 4.7% of people who own a computer with internet connection. This implies that should the customers be interested in online services, they either have to make use of the internet facilities provided at public libraries and community internet kiosks. The researcher is further of the opinion that the customers should have a degree of literacy to be able to respond to prompts from the internet portals. Deducing from the challenges in implementing e-government as highlighted in (1.1.5 of this study), high levels of illiteracy is regarded as one of the challenges faced by South Africa. This can complicate the rendering of electronic services since customers will have to be literate as well as have a degree of computer literacy. Docktor (2001:Slide 4) explains that a country must be e-

ready in respect of its infrastructure, should have easy access to ICT, and be in a position to implement the legal and regulatory framework on ICT use. The purpose of this study is to determine whether SASSA has an ICT infrastructure in place to render online services and if its customers are willing to make use of such services.

Research question

A research question is a precise statement that mentions what the researcher wishes to investigate (Garbers, 1996:285). The research question can also be seen as a “grand tour question,” which is a statement of the question being examined according to Creswell (1994:70). The research question that guided this study was as follows: Is the SASSA Regional Office Western Cape equipped with an ICT infrastructure to provide electronic services and are the customers prepared to utilise e-services?

1.4 Objectives of the study

The main objective of the study is to assess the ICT infrastructure of the SASSA Regional Office Western Cape as well as the level of computer literacy and willingness of its customers to utilise online services. The results of this study will be incorporated into recommendations for the agency. e-Readiness can be regarded as the dependent variable that relies on e-government, which can be regarded as the independent variable. The availability of an ICT infrastructure of the agency will provide an indication of the level of e-readiness. The willingness of SASSA beneficiaries to make use of electronic services will also be determined. The SASSA Regional Office Western Cape is the unit of analysis and will be discussed in the following paragraph.

The key research objectives are:

- To assess if the SASSA Regional Office Western Cape and the various local offices have an ICT infrastructure in place;
- To determine the electronic services currently provided by SASSA Regional Office Western Cape;
- To determine the level of computer literacy of the beneficiaries of SASSA; and

- To establish the capability and willingness of customers to make use of electronic services provided by the SASSA Regional Office Western Cape.

1.5 Research design

According to Yegidis & Weinbach (2002:102) the research design refers to the plan that will be used for conducting the research. A research design is therefore the “blue print” for how the research is to be conducted (De Vos, 1998:77). This research study used a non-experimental research design. The author’s decision to use a non-experimental research design was motivated by the fact that the aim of this study was not to manipulate existing variables but rather to study the variables as they exist.

Smith (1992) (as cited in Welman, Kruger and Mitchell, 2005:193) explains that the terms ethnography, a case study and participant observation refer to almost the same type of research approaches. Welman et.al (2005:193) describe ethnography as a descriptive design which can be utilised when the researcher is interested in investigating individuals or groups in a specific community, group or organisation. The authors further explain that the focus of this research design is on “behavioural regularities” of daily circumstances for example the relationships between individuals or within groups. For the purpose of this research study, the researcher was interested in obtaining the opinion of participants and not their behaviour towards one another. Welman et.al (2005:194) explain that participant observation necessitates the researcher to participate as well as to report the experiences of the members of a group, community or organisation on a daily basis This can also relate to the people who are involved in a course of action or event that is being studied. The participant observation research design was not suitable for this research study because the researcher was not interested in the daily experiences of the participants, but rather in their opinions. Welman et.al (2005:193) mentions that in a case study research design, a restricted number of units of analysis are thoroughly studied. The authors further explain that these units of analysis can include individuals, groups and institutions. The authors highlight that the term “case study” does not refer to a particular technique which is applied. Case studies enable the researcher to obtain an understanding of the

distinctiveness of a specific case in all its complexity. Mouton (2005:149) agrees with the authors and also recommends that the case study design map be used for research that intends to provide an in-depth description of a small number of cases. This empirical study makes use of a case study research design to assess the e-readiness of the SASSA Regional Office Western Cape.

1.6 Methodology

1.6.1 Conceptualisation and measurement

The researcher searched various literature sources for appropriate, standardised questionnaires which could be utilised for this study. A standardised questionnaire, namely the e-Governance Roadmap for Good Governance (Appendix E) developed by Ernst & Young was used in this study to assess the ICT infrastructure of the SASSA Regional Office Western Cape. The Computer Systems Policy Project (CSPP) Readiness Guide is a self-assessment tool for communities to assess its readiness for implementing e-government. This assessment tool guided the researcher in developing her own questionnaire for both the customer care manager and customers of SASSA. The researcher designed and developed the questionnaire for the customer care manager (see Appendix F) as well as the customers of SASSA (Appendix G) since no standardised questionnaires were found.

1.6.2 Data collection

Initially four district offices were selected: two rural districts and two district offices from within the Cape Metropole for the purpose of data collection. However, because the SASSA district offices indicated that they were unable to administer the customer questionnaires and due to the time constraints of the researcher, only three urban district offices were used in the study, namely the Wynberg, Athlone (satellite Langa Office) and Cape Town districts offices.

The researcher conducted questionnaire-based interviews (see Appendix G) with beneficiaries from the three most popular grant types as indicated in the monthly

monitoring and evaluation reports of SASSA (SASSA, 2010). These include the Child Support Grant (CSG), the Disability Grant (DG) and the Old Age Grant (OAG). The questionnaire focused on determining the level of computer literacy and willingness of SASSA customers to utilising online services. The researcher distributed the questionnaires and discussed them with the beneficiaries. The size of the population was 10 beneficiaries per each grant category, which in total meant 30 questionnaires per district office. Ninety questionnaires were distributed among the initial three district offices taking into account the selected three grant categories.

The interviews with the ICT manager and the customer care manager were conducted separately at the SASSA Regional Office Western Cape. The researcher used a structured questionnaire (see Appendix E) which focused on determining the current ICT infrastructure of the agency as well as efficiency of current service delivery (see Appendix F). The researcher had to obtain permission from SASSA to pursue this research study.

1.6.3 Analysis

The researcher analysed the ICT infrastructure and customer care services rendered by the SASSA Regional Office Western Cape as well as the data gathered from the questionnaires and interviews conducted. Data were manually analysed and displayed using graphics such as bar charts to present the data in a more visual way. This information enabled the researcher to draw conclusions for the purpose of making recommendations to encourage the SASSA Regional Office Western Cape to adopt electronic services and market such services among its customers.

1.6.4 Scope and limitations

The subject of the study was the SASSA Regional Office Western Cape and its customers, and not the rest of South Africa. The study focused on three district offices in the Metropole, namely Wynberg, Cape Town and Athlone. A limitation of the study is that not all the district offices of the SASSA Regional Office Western Cape were

included. As a result, it was not possible to gain a holistic picture in respect of the interest in electronic services among all beneficiaries.

1.7 Chapter outline

Chapter One: Introduction and problem statement

This chapter provides a background on e-governance and draws attention to some of its benefits. The establishment of SASSA and the services it renders are briefly discussed. The rationale, problem and objective of the study are explained. Chapter one also discusses the research design and methodology followed in this study.

Chapter Two: Theoretical Framework

Chapter two comprise of a comprehensive literature review conducted on e-government both in South Africa and globally. The chapter starts off with a brief description of e-government policies utilised in South Africa and commences with key aspects of e-government, such as e-governance, e-government and e-readiness. The chapter further explores the goals, benefits, challenges of both e-government and e-readiness. This chapter also provide examples of e-services and concludes with global and national examples of e-government initiatives.

Chapter Three: e-Readiness model

The third chapter describes five different e-readiness assessment tools and draws attention to some aspects to consider when embarking upon conducting an e-readiness assessment. In ending, the chapter describes a combined model as suggestion for the SASSA Regional Office Western Cape to consider when conducting an e-readiness assessment.

Chapter Four: SASSA regional office Western Cape as the case study

This chapter provides an overview of SASSA and discusses its mandate, vision and mission together with its organisational structure. A brief description is provided on the types of services rendered by SASSA and also statistics for each grants as per region. The chapter concludes with a copy of the website of the agency.

Chapter Five: Data gathering and analysis

Chapter five starts off with a description of key variables, unit of analysis and the sampling methods used in this study. The chapter further explains the data collection methods used in the study with reference to primary and secondary data.

Chapter Six: Research findings

The chapter analyses the results from literature as well as from the questionnaires and interviews conducted with SASSA officials. The results are presented in the form of graphs to provide a clear description and summary of the research findings together with an interpretation of the research findings.

Chapter Seven: Summary and conclusion

Chapter seven provides a summary of all the chapters of this study. This chapter also lists the research objectives and the findings of the study. In closing, the chapter highlights several recommendations for the SASSA Regional Office Western Cape to consider.

1.8 Summary

e-Government is about how a government makes use of information and communication technology (ICT) to provide citizens and businesses with an opportunity to interact and conduct business with the government by means of electronic media such as telephone touch-pad, fax, smart cards, self-service kiosks, and e-mail/internet. e-Government presents both opportunities and challenges.

There has been a rapid growth in the number of digital access devices and the availability of digital services. In South Africa 14.7% households have a computer, while 4.7% households have a working internet connection and approximately 9.5% South Africans access the internet monthly. The average world internet penetration rate is 21.9%, indicating that more than a fifth of the world's people have access to the internet, except in Africa.

Chapter 1 provides the background of the study and underlines the core challenges of the research study. The study aims to determine effective e-government projects and make recommendations for the implementation of an ICT infrastructure to improve services provided by SASSA.

The following chapter provides a theoretical framework and key concepts associated with e-government. The chapter also provides an overview of e-government and related projects implemented in South Africa and internationally.

Chapter 2: THEORETICAL FRAMEWORK

2.1 Introduction

Djeljosevic (2009) explains that telephones were already available in the 1990s and that the technology was improved with the development of cordless phones, cell phones as well as answering machines. The author also mentions that during the 1980s, pagers (also called beepers) were used but only over short distances. This changed in the 1990's since pagers were able to operate over long distances and as a result, became quite popular. The author makes it clear that computers have existed before the 1980's; however, the use thereof increased during the 1980's. The author is of the opinion that schools, libraries and workplaces have shown an increased interest in the utilisation of computers during the 1990s. Djeljosevic (2009) further explains that World Wide Web was introduced in the early 1990's and made the internet a popular means of communication, especially with communications companies such as AT&T as well as internet service providers for example America Online and CompuServe. The pagers became less popular with the improvement in computer chip technology since smaller and more affordable mobile phones were produced with additional functions than only making phone calls. Mphidi (2009:1,2) agrees with Djeljosevic (2009) and mentions that in the past communication usually took place by means of public meetings, television, radio and printed media. At present communication occurs through modern information and communication technologies (ICT) such as the internet and satellite (Mphidi, 2009:1).

This has also impacted on the manner in which government, organisations and businesses conduct their businesses. The World Information Technology and Service Alliance (WITSA, 2009) explain that gradually more governments are playing a leading role in promoting the benefits of electronic service delivery. Mphidi (2009:2) explains that e-governance entails new leadership styles, another way of debating and deciding policy and investment, new means of accessing education, new methods of listening to citizens, and new techniques of organising and delivering information and services. WITSA (2000) further mentions that environmental demands and business drivers call

for a transformation to e-government. The EIU (2008:xii) claims that the new demands placed by the citizens on government has led to the transformation of government. In the public sector, government is being influenced by the information revolution in the way that it responds to the needs of clients. This further explains why the advantages of e-government are evident in governments across the globe through the inclusion of aspects such as electronic transactions and electronic service delivery. This has created new opportunities for service delivery and the implementation of programmes at government departments.

e-Government provides opportunities as well as challenges to a government. WITSA (2000) mentions that governments can be confronted with pressures such as shrinking budgets, optimisation of resources, rapid technology advances, shifts in customer expectations and labour pool limitations. Business drivers include improving customer focus and service, focusing resources on core mission areas and increasing competitiveness in the marketplace. By transforming e-government, the government will foster entrepreneurial government based on more business-like practices, cost savings and enhanced environmentally sensitive responses. The government needs to get to the same level as the private sector and other countries with regard to e-governance.

This chapter will focus on e-governance from a global and local perspective and will also provide an overview of the benefits and challenges of e-government and e-readiness. It is important to have a basic understanding of the relevant pieces of legislation since this can assist one to remain within the judicial parameters of a given country. For the purpose of this study, the legislation pertaining to South Africa will be briefly discussed.

2.1.1 e-Government policies, service delivery and e-readiness context

2.1.1.1 e-Government policies

The South African government's continuous adoptions of new and improved services are all centred on the Batho Pele principles (see 1.1.1 of this study). The principle which discusses 'access to information' underlies the decision made to move government

processes from traditional pen and paper formats to e-government. The DPSA is primarily accountable for developing the policies relating to e-government (DPSA, 2007a). The DPSA (2001a) produced an information technology (IT) policy framework which laid the foundation for e-government. Haricharan (2003) explains that departments such as the Department of Communication (DoC) and the Department of Science and Technology have also contributed to such policy documents. Naidoo (2007:323) mentions that in 2001 an e-government policy was compiled by DPSA to assist with the overall service delivery improvement programme.

DPSA (2007) as well as (Farelo and Morris, 2006:5) note that South Africa has the following policies, standards and documents in place to assist with the effective implementation of e-government:

- Minimum Information Interoperability Standards (MIOS) Version 4.1 and Handbook on the MIOS

The government of South Africa has adopted this guideline since it is in line with international trends and best practices. This document provides an overview of the policies and technical standards for the e-government strategy of South Africa. These standards enhance process flow of information across the public sector and increase the accessibility of government services for citizens and businesses. The guideline also specifies the standards used for m-government (DPSA 2007b:2).

- Presidential review commission report, chapter 6: Information management, systems and technology (IMST)

Chapter 6 of the Presidential Review Report describes the challenges experienced by the public service in respect of Information Management (IM), Information Systems (IS) and Information Technology (IT). This chapter regard information, human resources, capital as well as organisations as essential resources of government. The chapter provides and analysis of the information management, information systems and information technology in government. The chapter further reports on the challenges identified by the commission in respect of IMST and suggest several recommendations to address these obstacles IDPSA (2007c:1).

These recommendations vary from a short term procurement moratorium on large IMST to electronic government. The report proposes that the implementation of IMST would be both viable and advantageous when using it to assist all sectors of society (DPSA, 2007c:3).

- Public Service Regulations (PSR), 2001; as amended up to 2006, Chapter 1, Part III: E

Part III: E of the regulations explains the responsibilities of the heads of department to develop information plans, information technology plans and operational plans for the implementation of ICT (Republic of South Africa (RSA), 2006).

- Public service regulations (PSR), 2002; as amended up to 2006, Chapter 5, Part I to Part III

This is a description of the electronic government regulations as well as the importance of e-government for effective and efficient service delivery, information security, and interoperability (RSA, 2006).

- Minimum Information Security Standards (MISS)

These standards replace the previous “guidelines for the protection of classified information” (DPSA, 2004:3). The MISS prescribes how security measures should be applied in respect of classified documents, personnel (guidelines for security vetting), communication and also computers. In respect of document security, the standards provide guidelines on who should obtain access, the transmission of these documents, the storing as well as removal of these classified documents. The standards on personnel security explain the screening, validity of clearances and protection of the executive officials. The security standards are clear in respect of how documents stored on the computer, should be handled. The standards conclude with a chapter on “breaches of security” (DPSA, 2004:63).

- The State Information Technology Agency Act, Act 58 of 1998 and the State Information Technology Agency Amendment Act, Act 38 of 2002

This Act regulates the foundation of e-Service providers to the government. In section 7 of the SITA Act, it is explained that all ICT services must be obtained from or through SITA. SITA is responsible for the provision of a secure wide area network (WAN) to enable government departments to interact with each other, citizens and business, as well as data-processing or associated services for transversal information services. SITA also set the standards regarding ICT which is approved by the Minister of Public Service and Administration. The SITA Act is an important piece of legislation in respect of e-Government (RSA, 2002b).

- Policy on Free and Open Source Software (FOSS) use for the South African government

The policy document mainly summarises the use of free open-source software (FOSS) to improve e-government. Apart from this document, research and consultation in regard of FOSS have also taken place on both national and international level with stakeholders. The FOSS policy initially encouraged government to make use of open-source software. The policy draws attention to programmes and the required phases thereof, from the initiation, enhancement to the maturity phase. It is estimated that the initiation and enhancement phases can be completed within a three-year timeframe. Initially there were several obstacles identified in respect of the FOSS policy, but these have been addressed. The FOSS software has also become easier to use with the maturity of the software. The FOSS policy explains the implications, advantages and disadvantages of using FOSS as well as how FOSS contributes to development in South Africa (DPSA, 2006).

- Information Technology (IT) Planning Guidelines (2002)

This document applies to public managers and provides an overview on how to compile strategic IT plans. These guidelines have been accepted since it has incorporated ICT (Government Information Technology Office Council, 2002:3).

Farelo and Morris (2006:7) highlights four (4) pieces of legislation that are relevant for the implementation of e-government of which two are mentioned above namely the

Promotion of Access to Information Act, Act no. 2 of 2000; provides any citizen of South Africa with the right to gain access to information from either a private or public entity and the State Information Technology Agency Act, Act no 58 of 1998 has been already discussed in the above paragraph. The two other acts include:

- Electronic Communications and Transaction Act, Act 25 of 2002
This act includes the facilitation and regulation of electronic communications and transactions, the development of a national e-strategy for South Africa, encouraging the use of e-government services, endorsing universal access to electronic communications and related matters. The act also makes provision for making or receiving electronic payments, the acceptance of data messages, the issuing of permits, licences or approvals in the form of data messages (RSA 2002a).
- Electronic Communications Act, Act no. 36 of 2005
This act replaces the Telecommunications Act, Act 103 of 1996 and includes the regulation of telecommunication activities (excluding broadcasting) as well as the control of radio frequency spectrum. The Act also recommends that an independent South African Telecommunications Regulatory Authority and a Universal Service Agency of South Africa be created (RSA, 2005).

Farelo and Morris (2006:7) are of the opinion that the Public Service Regulations of 2001 have also made the implementation of e-government possible in South Africa. Farelo and Morris (2006:7) explain that an Open Source Software Strategy and Policy was in position in 2003 for the development of an implementation strategy and plan to be presented to Cabinet in the future.

The Draft Protection of Information Bill was undergoing consultation in 2002 according to Farelo and Morris (2006:7). The Protection of Information Bill was published on the 5th of March 2010 in the Government Gazette No. 32999 (RSA, 2010). The Bill was developed to ensure that certain information will be protected from destruction, loss or from being disclosed illegally. The Bill also strives to regulate the way in which information may be safeguarded. The Bill further replaces the Protection of Information

Act, 1982 and to provide for matters in this regard. The goal of the Protection of Information Bill is to ensure that there is a consistent manner in which State information is protected, classified and declassified. The Bill will develop a legislative framework to guide the State to take action against espionage and other related intimidating activities. The Bill comprise of 12 chapters that indicates that Government is serious about service delivery and has developed Batho Pele principles to ensure effectiveness and efficiency.

One can therefore argue that legislation plays an essential role in the implementation and efficiency of e-government. To summarize, the MIOS for example provide information on international trends and best practices that can be followed, therefore legislation can also provide guidance. It is also imperative to obtain background information before embarking upon any project. The IMST on the other hand provide information on the challenges experienced in the public sector in respect of information management. This can certainly assist a department or organisation to refrain from repeating the same mistakes. The security of information is critical to take into consideration when embarking upon e-government initiatives. The MISS and the Information Protection Bill provide guidelines on the protection and the consistent safekeeping of state information. This is also very important since it ensures that confidential information is safely stored and secured. All of the mentioned guidelines can contribute to the success and effectiveness of e-government initiatives.

The focus of this study is on the improvement of services; therefore the impact of the Batho Pele principles in the context of service delivery will be explored in the following section.

2.1.1.2 Service Delivery

DPSA (2001b) mentions that the Batho Pele (“People First”) principles have been incorporated into a white paper (promulgated 18 September 1997) aiming to transform public service delivery. The Batho Pele principles consist of eight principles namely: consulting users of services, setting service standards, increasing access, ensuring

courtesy, providing more and better information, increasing openness and transparency, redress, and value for money (RSA, 1997). The vision and mission of SASSA reads as follows: “to provide a world class social security services, to deliver innovative, cost effective and efficient services to individuals, their families and community groups via multi-and easy access channels using modern technology” (Visser and Twinomurinzi, 2008:2) The mission and vision of the agency is aligned to some of the Batho Pele principles such as the service standards principle, value for money principle and the increasing access principle. SASSA is mainly responsible for the provision of social grants to beneficiaries. Visser and Twinomurinzi (2008:4) are of the opinion that the utilisation of e-government initiatives can improve service delivery and also uphold the Batho Pele principles of putting people at the centre of service delivery. The authors mention that ICT can put people first should the business processes be supportive of the use of ICT. They also point out that all e-government initiatives should be integrated to ensure the effectiveness of e-government.

SASSA has put several mechanisms in place to improve on the quality of its service delivery such as the implementation of a service delivery charter and the provision of monitoring reports. The agency is also aware about the importance of ICT in delivering efficient services. An example is where SASSA has piloted the Linux Desktop virtualisation software running on SUSE Linux Enterprise Desktop in Limpopo at 13 of its sites during August 2007 (Heubner, 2008). The aim of the pilot project was to reduce the costs and to improve the turnaround times in which the social grant applications are processed from the rural offices. SASSA has saved a total amount of R250,000 per site and has also managed to decrease the application processing from taking weeks, to 24 hours. SASSA has successfully implemented the Useful Multiplier desktops in 50 rural areas where its offices are based. Each desktop has a MTN 3G modem and provides wireless access to the Social Pension System (SOCPEN) in Pretoria. As a result, SASSA officials were able to capture and process the social grant applications within 24 hours from the rural areas in which they operate. Initiatives such as this truly assist with making services customer-orientated and to improve on service delivery.

Now that the policies pertaining to e-government in South Africa and the context of service delivery have been discussed, pertinent concepts of e-government will be highlighted such as e-governance and e-readiness.

2.2 Key Concepts

There are several definitions for both e-government and e-readiness. To facilitate easy reading and understanding of these key concepts, the researcher will first discuss the difference between e-governance and e-government before embarking upon an explanation of e-readiness which will follow. The researcher therefore finds it appropriate to first explain the concept of e-governance and e-government.

2.2.1 e-Governance

Riley (2003:10) explains that governments have started to implement electronic networks and justifies that it promotes better service delivery and also reduce costs. The author further explains that the electronic network is also utilised for political activism to disseminate information as well as to coordinate activities, which forms an essential part of e-democracy. In Table 3 below the author differentiates between e-government and e-governance. Riley (2003:10) firstly provides an explanation of e-governance and elaborates that the consultation process comprise of direct contact between the public sector, citizens and interest groups. He mentions that the consultation process assists citizens to give input in respect of public regulations. Riley (2003:10) is of the opinion that online consultations are a top down approach that is managed by the government organisations, being on top of the political food chain.

Table 3: e-Governance vs. e-Government

| e-Governance | e-Government |
|---|---|
| <ul style="list-style-type: none">• Electronic consultation | <ul style="list-style-type: none">• Electronic service delivery |
| <ul style="list-style-type: none">• Electronic controllership | <ul style="list-style-type: none">• Electronic workflow |
| <ul style="list-style-type: none">• Electronic engagement | <ul style="list-style-type: none">• Electronic voting |
| <ul style="list-style-type: none">• Networked societal guidance | <ul style="list-style-type: none">• Electronic productivity |

Source: Riley (2003:10)

Riley (2003:15) mentions that the electronic network affords governments with the opportunity to resolve enquiries, provide information and also transact with their citizens. The author notes that government have transformed its services to electronic service delivery as depicted from Table 3. The author is also of the opinion that one of the limitations of electronic service delivery is that only those with internet access are able to scrutinize the digitalised documents of government.

Manohar, Pulapa and Mellam (2009:243) define e-governance as the digitalisation of the services rendered by government. The authors are of the opinion that the advantages of the digitalisation of government services comprise of the straightforwardness of services provided, accountability, responsiveness and transparency of the public services. Manohar et.al (2009:243) further explain that e-governance is broader than e-government since e-governance allows citizens to directly play a part in political activities such as e-democracy, e-voting and participation in online political activities. The concept of e-governance thus covers government, the involvement of citizens, political parties, organisations, parliament and judiciary responsibilities. Therefore e-governance enables citizens to communicate with government, to participate in the development of government policies, democratic political processes as well as allowing citizens to communicate with one another. This contributes to e-governance having added implications than e-government.

In saying the above, e-governance refers to the utilisation of technology to improve on service delivery, sharing of information, client participation as well as to advance

government through the transformation of its internal and external relationships. e-Governance further implies that government disseminates information and renders services to the public through “electronic means” (Manohar et.al., 2009:243). Now that the concept of e-governance has been explained, the next section will provide an overview on e-government.

2.2.2 e-Government

Haricharan (2003:6) mentions that the e-commerce green paper, which was published by the Department of Communications in 2001, defines e-government as “Government use of information communication technologies (ICT) to offer citizens and businesses the opportunity to interact and conduct business with government”. This definition suggests that e-government uses ICT to arrange itself in respect of its administration, rules, regulations and frameworks in rendering services. Agrawal, Mittal and Rastogi (2001:1) define e-government as the use of new technologies by government to provide suitable access to government information and services to the general public, improved service delivery, and greater participation opportunities in respect of independent institutions and processes. Pascual (2003:5) explains that the definition of e-government ranges from the “use of information technology to free movement of information to overcome the physical bounds of paper and manual systems” to “the use of technology to enhance the access to and delivery of government services to benefit citizens, business partners and employees”. Farelo and Morris (2006:1) agree and define e-government as the “use of ICT to promote more efficient and effective government, facilitate more accessible government services, allow greater public access to information, and make government more accountable to citizens”. Heeks (2006:58) defines e-government as any task, process or service that is conducted or delivered electronically or through information and communication technology (ICT). In the e-Business Handbook (2005) (as cited in Naidoo, 2007:322,323) e-government is described as the method whereby government makes its communication and administration processes available on the internet, call centres and kiosks, and through interactive voice response.

The Department of Public Service and Administration (DPSA, 2007a) defines e-government as electronic government, digital government and online government which refers to the use of information communication technology by government to exchange information and services with citizens, businesses, and other arms of government. e-Government can also be applied by the legislature, judiciary or administration with the purpose of improving internal efficiency, public services as well as processes of a democratic governance. Naidoo (2007:330) further adds that for e-government to be a success, strong leadership is required in South Africa.

The definitions are all of the opinion that e-government is not only about electronic service delivery, but part of the continuous restructuring of government to ensure participation from its partners for improved efficacy and success. For instance, Farelo and Morris (2006:2) highlight the importance of government to become more citizen-centred and are of the opinion that technology be regarded as a tool in achieving this. They argue that the success of e-government depends on government adapting the manner in which it conducts its business, the utilisation of information, the view of officials in respect of their work and their interaction with the public. This further emphasises the importance of active partnerships between government, citizens and the private sector for the accomplishment of e-government (Farelo and Morris, 2006:2). The e-government process also requires participation by means of a contribution or comments from the general public, businesses as well as the officials utilising e-government services. These authors are of the opinion that e-government is participatory in nature when implemented correctly.

The abovementioned definitions of e-government all incorporate ICT, government's electronic technologies and improved service delivery. In this research study the definition of e-government by Farelo and Morris (2006:1) will be utilised: "e-Government is the use of ICT to promote more efficient and effective government, facilitate more accessible government services, allow greater public access to information, and make government more accountable to citizens". e-Government offers several types of services, which will be highlighted in the following section.

2.2.2.1 Types of e-government services

Pascual (2003:6) identifies four types of e-government services.

- Government to citizen (G2C) services entail the distribution of information to citizens, which consists of the filing of income tax returns, license renewals and applications for birth/death and marriage certificates;
- Government to business (G2B) transactions consist of services exchanged between government and the businesses, which include the availability of policies, rules and regulations as well as memos. The business can find application forms, register their business, obtain permits and pay their taxes, which enables small and medium enterprises to develop;
- Government to employee (G2E) services only cover government employees and include the provision of human resource training and development, which will lead to improved service delivery to citizens; and
- Government to government (G2G) services occur on both local and international level. These services consist of transactions between national and local governments and inter-departmental as well as agencies.

DPSA (2001) makes reference to three (3) of the abovementioned types of services and omits government to employee (G2E) services. Naidoo (2007:323) explains that e-citizen services are also referred to as G2C services and refer to initiatives that connect citizens with government and improve the relationship, as well as to the public services rendered to people. DPSA refers to G2B as e-society services, which describes how government strives towards improved interactions with businesses and society by making use of technology to work more closely with businesses for economically viable relationships with the government. Naidoo (2007:323) refers to G2G as e-administration and describes it as projects that make use of technology to advance the internal administration processes of government, implementing cost effective measures and equipping government staff to work more efficiently.

e-Government is not only accomplished through the internet. Pascual (2003:8) draws attention to the fact that the internet is regarded as the most influential means of

delivering e-government, but it is not the only or most appropriate means. According to DPISA (2001a), several non-internet technologies are available, which include e-mail, online community facilities and electronic mailing lists, short messages service (SMS) and multimedia message service (MMS), telephone and fax services, radio frequency identification (RFID) and biometric identification as well as television and radio-based delivery of government services. It also includes polling station technology (non-online e-voting), wireless networks and services, closed-circuit television (CCTV) and tracking systems. e-Government has several goals and presents advantages as well as challenges that will be examined in the next section.

2.2.2.2 Goals, benefits and challenges of e-government

The goals of e-government

Pascual (2003:10) mentions five broad goals of e-government which have been identified by the Working Group on e-Government in the developing world. These are mainly related to creating better business environments which encourage customers to be online and not in line. The second goal focuses on strengthening good governance and the third goal emphasises the importance of public participation. The fourth goal relates to improving the productivity and efficiency of government agencies and the last goal described by Pascual (2003) focuses on the improvement of the quality of life for disadvantaged communities.

Naidoo (2007:323) adds to Pascual's goals by stating that e-government should aspire to provide a more competent and accessible public administration to citizens, businesses and employees. This will ensure accountability from government's side and provides accessibility of information to all. Agrawal et. al (2001:2) argue that the global development of e-commerce applications has led to numerous countries opting for electronic service delivery in respect of all government processes. These authors are of the opinion that the adoption of e-governance has contributed to innovations in technology and telecommunications, which are perceived as catalysing tools for e-governance in several countries. They further explain that e-governance provides a new way forward, assisting with the improvement of government processes, connecting

citizens and building interactions with the general public. The authors mention that, according to one school of thought, e-governance provides three basic change potentials for good governance for development. These change potentials include automation, which refers to the replacement of existing human-executed processes, for example the computerisation of clerical functions. Another possibility is informatisation, which refers to supporting current human-executed information processes such as decision making, communication and decision implementation. Transformation involves supporting new human-executed information processes such as generating new techniques for public service delivery. The following section draws attention to the benefits of e-government.

Benefits of e-government

According to Pascual (2003:6), the outcome of e-government should be professional and ensure prompt delivery of goods and services to the public, businesses, government employees and agencies. e-Government to citizens and business suggests that procedures need to be simplified and the approval process should be reorganised. This implies coordination and collaboration between government employees and agencies to ensure appropriate and timeous decision making. Pascual (2003:5) further explains that e-government strives to improve access to, and delivery of, government services to benefit citizens. It can also assist government in strengthening its drive toward effective governance and increased transparency for improved management of the social and economic resources of the country, which are essential for development.

Naidoo (2007:323) mentions that e-government makes it possible for government to reorganise its interaction with business people, private citizens and government agencies, while ensuring:

- Improved public access to government information and services;
- That quality and cost-effective government services be improved;
- Effective information sharing and communication with its citizens;
- Improved opportunities for participation in democratic institution; and
- Effective relationships with business people and private citizens.

Mphidi (2009:5) underlines several advantages of e-government, such as saving time while minimising delays in rendering services. e-Government is cost efficient, since it reduces the cost of service delivery and improves communication, especially between government and its citizens. It further enhances the accessibility of information, increases transparency, accountability, efficiency and effectiveness of government.

The three change potentials for good governance, as mentioned under “Goals for e-government” (see 2.2.1.2 of this study), can individually or in combination bring about five benefits for governance in terms of development, according to Agrawal et.al (2001:2):

- Governance that is cheaper by producing the same outputs at lower total cost;
- Governance that accomplishes more by producing more outputs at the same total cost;
- Governance that is faster by producing the same outputs at the same total cost in a shorter period;
- Governance that puts in more effort by producing the same outputs at the same total cost, but to a higher quality standard; and
- Governance that is innovative by producing more outputs.

Challenges of e-government

Mphidi (2009:6,7) provides a detailed explanation of the challenges that e-governance can present. One of these challenges is privacy. Individual privacy can be compromised as a lot of e-government systems collect, store and use personal information of those making use of electronic services or visiting websites. Security presents a further challenge. It is essential that government ensures the security of its information and communication systems against factors that can pose a threat to the reliability and availability of its services or undermine the confidence of the users and citizens. There can also be economic disparities since underprivileged persons have the lowest level of access to electronic services, according to the Organisation for Economic Cooperation and Development (OECD, 2003) (as cited in Mphidi, 2009:6). Education can also be regarded as a challenge since educated persons most likely make use of the internet. It

is argued that as a person becomes more educated, the utilisation of the internet also increases which presents a challenge for those citizens without formal education. An added challenge is accessibility as it is crucial that government ensures that all citizens have access to the internet, especially those individuals with disabilities.

There is also the concern of citizen awareness and confidence since it is a great challenge for government to create awareness of the advantages of e-governance and to encourage people to make use of its facilities. Lack of leadership and management can also be an impediment, since political leaders who do not see e-government as a priority will make little effort to ensure that IT policies and programmes are initiated, which can create a major obstacle for development. The bureaucratic government organisation can also be a barrier since government most often tends to focus on the flow of information between departments and agencies, and seldom on citizens. The ICT impact can be regarded as a problem since those who do not have access to ICT are unable to participate in e-governance, which further increases the digital divide. The legal framework can be regarded as a hindrance since e-governance needs a legal framework that supports and is familiar with digital communication.

Farelo and Morris (2006:6) are of the opinion that the South African government is confronted with major challenges in human resource development, providing access to citizens and effectiveness of internal government processes. They explain that although South Africa has taken steps to provide online access to services, it needs to develop the intensity of such services. This needs to be seen in the context of low tele-densities, in especially the rural areas, and also the high telecommunication costs. Schuppan (2008:20) explains that capacity building needs to be seen as a focal point to increase the level of cooperation in e-government. Naidoo (2007:328) also highlights several challenges related to the design and implementation of an electronic strategy in the South African environment. The language and cultural diversity of South African citizens poses an additional challenge. Naidoo (2004) and Singh (2007) (as cited in Naidoo, 2007:329) explain that there are also other challenges which the South African government faces, such as identifying potential legal obstacles in the development of

the electronic model. Another obstacle is to provide education and training on the practice of the electronic model and to address the lack of awareness among government organisations, consumers, companies and small micro- and medium enterprises (SMME's). The management of negative socio-economic circumstances such as job losses and other associated risks can also be regarded as an impediment.

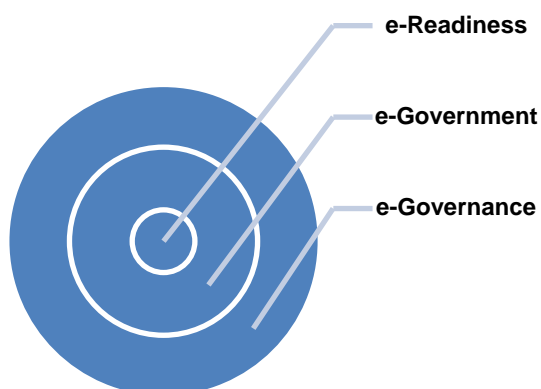
Naidoo (2007:328) is of the opinion that the South African government departments and businesses are generally not willing to spend a huge amount of money on promoting internet usage. This reluctance is further increased by the fact that the human element is lacking in the internet approach. In South Africa many government departments, businesses and consumers are still cautious about doing extensive business over the internet because of the lack of a predictable legal environment.

e-Readiness forms an important starting point when considering the implementation of e-government. Therefore the next session will provide a clear overview of e-readiness.

2.2.3.1 e-Readiness

There are several definitions for e-readiness just as there are various definitions for e-government. The following section centres discussions on e-readiness focusing specifically on the definition of e-readiness, the objectives thereof, processes and frameworks as well as associated benefits and limitations.

Figure 1: e-Readiness



The researcher is of the opinion that e-readiness can best be described through an illustration of a spiral where e-readiness is seen as the starting point to implement e-government with the aim of bringing about e-governance. Figure 1 depicts e-readiness is an important dimension of e-government and refers to the ability to make use of information and communication technology (ICT) to expand one's economy and to cultivate one's welfare (Wikipedia, 2009a). Bridges.org (2008:4) argues that there is no standard definition for e-readiness but describes e-readiness as the capacity of a country to benefit from information and communications technology. The World Bank (as cited in Docktor, 2001:Slide 4) is of the opinion that a country should be e-ready in respect of its infrastructure, ICT accessibility to citizens, and the impact of the legal and regulatory framework on ICT use for the effective implementation of ICT. It is further explained that e-readiness assessments enable a country to measure its progress and to establish its vision, strategy and priorities with the possibility of expansion. Docktor (2001:Slide 6) defines e-readiness as the "capacity to participate in and benefit from the global digital economy, preconditions necessary for e-government, e-commerce and e-development and the degree to which a community or organisation is prepared to participate in the networked world."

Additional sources such as GeoSINC International (2002:5) provide alternate descriptions of e-readiness. GeoSINC describes e-readiness as the extent to which a society is ready to take part in the digital economy with the view that it can contribute to an improved nation. It further explains that irrespective of a country's level of development, e-readiness is assessed by establishing the status of its society and economy, which are critical in terms of participation in the networked world. One has to note that each country defines e-readiness in different ways, depending on its priorities and perspective. The Economic Intelligence Unit (EIU) (2009:4) defines e-readiness as a means to determine the quality of the ICT infrastructure of a country and the willingness of its consumers, businesses and governments to utilise ICT to their advantage.

The United Nations Public Administration Network (UNPAN) has developed an e-Government Training Module (United Nations Online Network in Public Administration and Finance, 2007). This training module explains that e-government readiness assessment is a valuable tool that can assist governments in understanding the strategies and action plans of e-government. It can also be a helpful exercise to raise awareness, identify the opportunities and possible threats, and devise a plan for future actions. Readiness assessments are most handy when they have been customised to fit the national context of a country and accepted as part of evaluation and benchmarking. The e-readiness assessment also provides a description of the environment in which e-government development will take place and also confirms the feasibility of such an application. Such assessments also intend to identify the weak areas in e-government to put corrective measures in place to ensure the success thereof. These assessments also aim, where necessary, to advise against the implementation of e-government approaches in a specific public administration, to update e-government strategies and action plans, and also provide a monitoring and evaluation tool.

Dada (2006:1) is of the opinion that e-readiness is a measure of the degree to which a country, nation or economy may be ready for e-government and reap the benefits of ICT. e-Readiness is often used to estimate the readiness of a country to participate in electronic activities such as e-commerce and e-government. e-Readiness also measures the readiness of the networked world and a Harvard University research project provides a framework which enables developing countries to evaluate their e-readiness. The Harvard University's Centre for International Development (CID) (2006) (as cited in Dada, 2006:1) defines e-readiness as the extent to which a community is willing to take part in the networked world and this is determined through an assessment of the development of a community in respect of ICT.

In summary and based on the definitions provided e-readiness refers to the availability of an ICT infrastructure as well as its accessibility to citizens. In addition the legal and regulatory framework in respect of ICT should be established prior to implementation.

Reference has also been made to the importance of ensuring a quality ICT infrastructure which takes into consideration the willingness of its consumers, businesses and governments to utilise ICT. Literature clearly suggests that e-readiness assessments are unique to each country and should therefore be customised to fit the national context of a country and should be considered before embarking on e-government. It is therefore only appropriate to discuss the goals and objectives of e-readiness in the following section.

2.2.3.2 e-Readiness goals and objectives

Bridges.org (2005:7) explains that e-readiness assessments differ in respect of their goals, strategies and results; therefore the correct e-readiness assessment depends on the goal of the user. For example, goals of users can include how to estimate the readiness of a specific company or group of companies that would like to for instance take part in e-commerce. Another goal can be to ascertain the reason for the differences in progress for specific countries. It can also be to measure the impact of the technology on the lives of ordinary people, taking into consideration how technology is actually used.

To facilitate achieving any e-readiness goal, Budhiraja and Sachdeva (2002:5) mention that the objective of e-readiness be defined, this can assist with identifying the role players that need to be involved in the process. Four (4) types of e-readiness objectives have been identified:

- e-Infrastructure: CORDIS (2010) refers to e-infrastructure as the research environment in which researchers share the access to exclusive scientific facilities which can consist of data, instruments, computing and communications. The researchers can work in the context of their home institutions or in national or multinational scientific initiatives. If the objective is e-infrastructure, the focus has to be on institutions, hardware and software, and e-readiness would entail having computers and access to computer hardware and networks. Therefore it is essential that computer hardware and network access be e-ready and reduces the digital divide between government and private initiatives that provide the supplies;

- Electronic commerce is usually known as electronic marketing or e-commerce which comprise of “the buying and selling of products or services over electronic systems such as the Internet and other computer networks” (Wikipedia, 2010). If the objective is e-commerce, then the focus should be on ICT business where e-readiness is defined in terms of having access to computers and financial resources. The computer hardware and network access should be e-ready;
- e-Society: If the objective is e-society, then the focus should be the entire population. In this case, e-readiness necessitates that basic literacy, poverty, health and other social issues should first be addressed. Although computers are valuable, a society will not be e-ready until basic literacy, poverty and healthcare issues have been dealt with;
- If the objective is e-governance, the focus should be on reinventing government processes as well as rendering faster and transparent services to citizens. e-Readiness here entails having computers or access to computers as well as to effectively utilise the computers; and
- The main objective of this study is to establish whether the SASSA Regional Office Western Cape has an infrastructure in place to render electronic services, which refer to the objective of e-governance as mentioned in the above paragraph. Another objective of this study is to investigate the e-society since this objective focus on ascertaining the level of literacy as well as other social challenges faced by the population.

Budhiraja and Sachdeva (2002:6) mention that hardware and access to ICT are not enough for real e-readiness and there need to be extensive training programmes, locally relevant content, and a local ICT sector accompanied by business process reengineering. Budhiraja and Sachdeva (2002:6) explain that the objective of an assessment is to establish a model with indicators. They explain that there are a variety of indicators, which can be categorised into the following main groups:

- Network access refers to the accessibility, cost and quality of ICT networks, services and equipment;

- Networked learning focuses on whether the educational system incorporates ICT in it attempts to improve learning. An example would be the number of technical training programmes in the community to teach and prepare employees for ICT;
- The focal point of a networked society is on the degree to which individuals are utilising information and communication technologies at work and personally. An example would include opportunities available for those with ICT skills;
- A networked economy concerns the use of information and communication technologies by government and businesses in networking with the public and one another; and
- The focus of a network policy is on the degree to which the policy environment encourages or hampers the growth of ICT adoption and use.

2.2.3.3 e-Readiness processes

The e-readiness process should be regarded as a linear process with each phase building on the results of the previous one. This is not a fixed process as the evaluation goes together with implementation, and as new data come into view, the strategies, action plans and projects can be enhanced or adapted to new conditions. Evaluation has to be seen as an addition to the assessment process, according to GeoSINC International (2002:6).

A complete e-readiness process comprises of three main phases. These phases are generally undertaken sequentially with phase one as the assessment, phase two referring to the development of a strategy and the preparation of an action plan, and phase three the execution of the action plan.

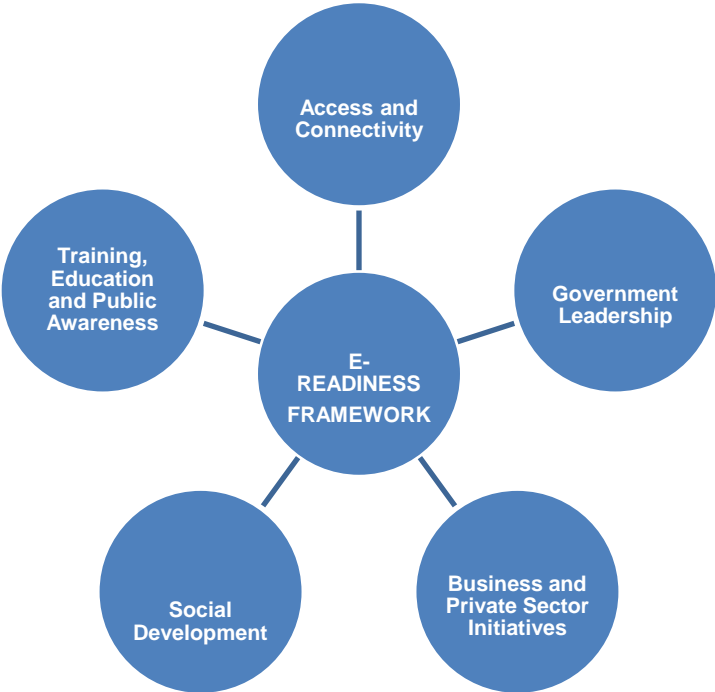
GeoSINC International (2002:7) mentions that the e-readiness process ultimately aspires to identify how ICT and involvement in the digital economy can assist a government to reach its objectives more timeously in respect of economic and social improvements and growth. For instance SASSA provides grants to citizens in South Africa as a means of eradicating poverty. Part of its millennium goals (2014) is to reduce poverty by half in the country and electronic services can certainly speed up the grant

application process as well as resolve queries and complaints. As a result, speedy services can be provided and targets can be met.

2.2.3.4 e-Readiness framework

An e-readiness framework assists in arranging e-readiness assessments in order to develop a strategy as well as prepare a national action plan. Once this framework is used to organise data and strategy at every phase, it assists in standardising documents, reducing the drafting time, simplifying consultation and minimising the risk of projects overlapping. This will ensure that the entire action plan is likely to be inclusive and consistent. GeoSINC International (2002:15) explains that the e-readiness framework can be used for the assessment and preparation of a national action plan as well as the implementation thereof. According to GeoSINC International (2002:15) despite the fact that strategic frameworks are different for each country, a common approach to e-readiness can be defined. The researcher found it best to demonstrate the e-readiness framework through the Figure 2 below.

Figure 2: e-Readiness Framework



The above diagram depicts the five main areas of activities that contribute to the e-readiness of a country. The first activity refers to access and connectivity, which are important for the continuation of networks. In the event that the access and connectivity are not effective, the second activity which focuses on training, education and public awareness, should not be considered. The second activity is often among the main obstacles to network development in several developing countries. The internet is written primarily in English, but this is changing fast. The third activity pays attention to government leadership which is often the primary factor in network development for the most part in developing countries. The laws and regulations of the government are often the foundation for a rapid and successful implementation. The fourth activity is business and private sector initiatives which are regarded as the means to install networks that will provide regular support for the search of readiness objectives. Initiatives from these sectors will lead the e-readiness of the country. The last activity refers to social development, which builds upon the outcomes of initiatives.

GeoSINC International (2002:18) is of the opinion that an e-readiness programme should preferably be carried out by a public-private unit under government authority. Only an authorised agency has the capacity to facilitate communication between all relevant departments with responsibilities for ICT policy, planning and implementation. This unit can be an agency or a task force that operates autonomously, as it will coordinate actions within a series of activities. The unit should also depend on the expertise of specialists from key departments such as justice, education, the private sector and industry, telecommunications and revenue. The benefits of e-readiness assessments will be discussed in the following paragraph.

2.2.3.5 Benefits of e-readiness assessments

There are numerous documented benefits of e-readiness assessments. e-Readiness has the ability to summarise a broad set of characteristics of a given country. These assessments can also influence development efforts, since they provide benchmarks to make comparisons and estimate progress. The e-readiness assessments are a valuable tool to assess the impact of ICT and provide concrete, measurable data.

Furthermore, e-readiness assessments also evaluate the level of infrastructure, education and relevant government policies available that enable a country to benefit from ICT. Despite these benefits, there are also certain limitations to implementing e-readiness assessments.

2.2.3.6 Limitations of e-readiness assessments

A review of selected reports studied; highlight limitations of e-readiness assessments. The results of this review indicate that the majority of e-readiness studies do not provide information on how the indices were developed or how they can be customised, and this indicates their limitations in respect of flexibility and applicability. Dada (2006:3) draws attention to the fact that there are a lot of different types of measures available with no standardisation of these measures. Maugis et.al (as cited in Dada, 2006:3) found that the majority of the e-readiness indexes are characterised by uncertainty and ambiguity in theory and practice, and presuppose a fixed set of requirements. The unique characteristics of each country or the demands for specific applications are not always taken into consideration. For instance, Purcell and Toland (2004) (as cited in Dada, 2006:4) found that despite the adoption of the internet in the South Pacific islands of Samoa, a lack of human resources, minimal awareness of the benefits of the service, poor institutional capacity and the high cost of information management systems presented a limitation. The authors also made reference to the fact that although technology was available, the people were not ready to utilise electronic services and the majority of the corporate websites were simply used for advertisements and information sharing. This highlights the importance of consumer willingness to participate in e-services.

Tarantola et.al (as cited in Dada, 2006:4) suggests that decision makers have an understanding of the implications of information gathered in an assessment to plot a comprehensive e-strategy as well as an action plan to improve e-readiness and address its limitations. According to Bridges.org (2005a) (as cited in Dada, 2006:4) this hardly ever happens in reality. Very often e-readiness indexes only measure the enabling conditions and not the impact of policies that have been implemented, or the

conclusions drawn by organisations as a result of these preconditions Picci (2006) (as cited in Dada, 2006:4) is of the opinion that by only creating an e-ready environment, does not ensure that organisations will be able to successfully participate in e-government as mentioned by Pare (2003) (as cited in Dada, 2006:5). Firms also need to take into consideration the costs, skills, organisational issues and other quality of service provisions that are critical. Dada (2006:3) therefore concludes that each model studied would need to be re-designed in order for it to be a comprehensive assessment tool.

2.2.3.7 e-Readiness context

e-Readiness is often represented through the use of indexes to rate countries in respect of several categories such as the percentage of Gross Domestic Product (GDP) spent on ICT infrastructure or the number of telephone lines per 100 people. These results are tabled and often used to make comparisons between countries and for longitudinal studies within countries. Several government and private institutions have formulated a vast number of e-readiness rankings, which are often the product of different methodologies with contradicting definitions of e-readiness. Dada (2006:3) explains that the findings of these studies are not consistent with one another and the rankings produced by the EIU are generally used in the media. The rankings of the EIU will be utilised in this study to provide an understanding of the state of e-readiness globally.

Background of the Economist Intelligence Unit (EIU)

The EIU is the business information arm of the Economist group, publisher of “The Economist” and has approximately 650 analysts in its global network to constantly assess and predict political, economic and business conditions in 200 countries. The EIU (2009:1) explains that since the year 2000 it has assessed the world’s largest economies on their understanding of ICT and the utilisation of ICT for economic and social benefit. Seventy countries are covered in the annual e-readiness rankings, which enables governments to estimate the success of their technology initiatives against those of other countries. The EIU provides an overview of the most promising business

locations from an ICT perspective across the world; this information is relevant to companies that wish to invest or trade internationally.

Measuring e-readiness 2009

The 2009 rankings of the EIU indicated that South Africa was rated 5.95 (out of a score of 10) during 2008 and 5.68 in 2009(EIU, 2009:6). South Africa was rated position number 39 in 2008 and number 41 in 2009 and the entire table is available in Appendix A. The scores reflect that there has been an insignificant drop in its rating; however, South Africa is scoring higher than other African countries as depicted in Table 4 below.

Table 4: EIU 2009 e-readiness rankings

| Position in 2009 | Position in 2008 | Country | 2009 score (of 10) | 2008 score (of 10) | Connectivity | Business Environment | Social and Cultural Environment | Legal Environment | Government policy and vision | Consumer and business adoption |
|--|------------------|--------------|--------------------|--------------------|--------------|----------------------|---------------------------------|-------------------|------------------------------|--------------------------------|
| Category Weights for the Category Scores | | | | | 20% | 15% | 15% | 10% | 15% | 25% |
| 41 | 39 | South Africa | 5.68 | 5.95 | 4.30 | 5.94 | 5.57 | 7.20 | 5.95 | 5.93 |
| 61 | 62 | Nigeria | 3.89 | 4.25 | 1.60 | 4.43 | 5.37 | 5.95 | 4.20 | 3.50 |
| 67 | 67 | Algeria | 3.46 | 3.61 | 3.75 | 4.97 | 4.37 | 3.30 | 2.65 | 2.33 |

Source: EIU (2009)

Measuring digital economy 2010

The EIU previously conducted e-readiness rankings of countries across the globe and the results of 2009 are reflected in Table 4 above. In 2010, the EIU developed a different approach and renamed this study to the “digital economy rankings” to reflect the increasing influence of ICT in economic (and social) progress. The EIU has shifted its focus to evaluate the quality of broadband and mobile connections instead of the e-readiness of various countries. The EIU as a result, adapted its indicators to ensure that these are relevant to the changing needs of ICT. The change in indicators has affected the countries with some of the best rated economies such as Europe and North America

to experience a decline in their scores and positions. The EIU (2010:2) highlights that there appears to be a need for the development of current/available ultra-high speed networks.

The EIU sampled seventy countries in the 2010 digital economy rankings and mentions that the Asian countries such as Taiwan (12th), South Korea (13th) and Japan (16th) have greatly invested in the latest internet infrastructure and have experienced an improvement in both their scores and rankings. The countries with the top scores in the 2010 digital economy rankings were Sweden in the first place, followed by Denmark which was previously the leader in respect of the e-readiness rankings. United States was ranked third place, Finland in the fourth place and the Netherlands in the fifth place.

It is worth noting that the quantitative evidence of the 2010 rankings, including previous years; propose that the digital divide is narrowing EIU (2010:2). The EIU rankings reflected that the digital divide has narrowed by approximately 5.5 points in the 2010 study. The EIU further explains that the gap between the first and the last countries in the top half of the table narrowed to 2.4 points in 2010 from 2.8 in 2009. Table 5 displays South Africa’s position on the digital economy rankings of the EIU and also reflect that South Africa is scoring higher than the other 3 African countries. The entire table, showing all 70 countries, is available in Appendix B.

Table 5: EIU 2010 digital economy rankings

| 2010 rank (of 70) | 2009 rank | country | 2010 score (of 10) | 2009 score |
|------------------------------|----------------------|----------------|-----------------------------------|-----------------------|
| 40 | 41 | South Africa | 5.61 | 5.68 |
| 57 | 57 | Egypt | 4.21 | 4.33 |
| 61 | 61 | Nigeria | 3.88 | 3.89 |
| 68 | 67 | Algeria | 3.31 | 3.46 |

Source: EIU (2010)

The above paragraph provides an overview of the context of e-readiness as well as the benefits and limitations thereof. The e-readiness rankings of 2009 and the digital economy rankings of the EIU provide a clear picture of the ICT infrastructure of South Africa comparing to other African countries and countries abroad. The following paragraph will define e-services with examples.

2.3 e-Services and Aspects thereof

Following on the discussion on e-readiness, which is a prerequisite to implementing electronic or mobile services consideration will now be given to defining electronic and mobile services. Wikipedia (2009b) explains that e-service is a general term which usually refers to services rendered through the internet and can also be seen as anything being conducted online.

An example is the City of Johannesburg, which provides online access to various services for individuals and businesses in Gauteng, South Africa (City of Johannesburg, 2009). Their services include:

- Registration of citizens' e-mail addresses and receiving their rates, water and lights invoices online;
- Sectional title property owners information and information on the implementation of the local government property rates;
- Enter meter readings online;
- View the progress of building plans online; complete online valuation forms which can assist the City to evaluate property correctly; and
- Access to a free interactive map of Johannesburg.

Du Preez (2009:45) highlights another example, the web portal of the Department of Labour (DoL), which is used to advertise its online services, and includes registration and updating of unemployment insurance fund details; feedback on progress in respect of the compensation claims; allowing companies to disclose their employment equity status online; and verification of a person's marital status.

2.3.1. Reasons for using e-services

In the past, paper was the key physical medium to transform informational services into supplies; however, currently the electronic media are progressively becoming more dominating in this regard, according to Henten (2009:2). He is also of the opinion that e-services cover all informational services (such as data, information and knowledge) as well as software that is distributed to consumers through digital networks. Not all e-services are rendered at a profit, since there are a variety of digital applications that are provided by the consumers for the benefit of other consumers free of charge.

2.3.2 Examples of e-services

According to GINIE (2003:Slide 8,9), e-services are divided into education, health, justice, land and property, agriculture, business, benefits, transport and travel, with examples in each category. In terms of health, citizens can, for example, register births and deaths online, book their appointments and obtain e-prescriptions. In terms of education, citizens can complete school applications online, submit university applications, apply for student loans and determine the type of services provided by teachers. Citizens can also register their vehicles online, pay their parking fees and apply for their passports.

Henten (2009:3) provides examples of e-services which include the following: supply chain management, resource management, accounting, processing of orders as well as all the services that are electronically provided through the internet. Manohar et.al (2009:247) explain that studies conducted recently indicated that in several developed countries, citizens and businesses choose to make use of both traditional and non-traditional types of services despite the fact that the majority of the services are available online. This is further determined by the type of service they need as well as the location they prefer to access these services.

2.3.2.1 e-Communication

e-Communication includes websites, e-mails and electronic documents, according to Section 15 of the Electronic Communications Act of 2000 (as cited in Byrne and

Associates, 2009:2). Byrne and Associates (2009:2) further explain that the internet and electronic communication are also called 'computer-mediated communications'. The authors are of the opinion that electronic communication does not only indicate new tools for communication, but also new ways of communicating. Organisations respond to their stakeholders (employees, board members, customers, partners and others) differently and this depends on the type of message, what goals it would like to accomplish, and the strengths and weaknesses of the existing media such as telephones, voice mail, fax machines and printouts.

Electronic communication allows one to combine various media – video, graphic sound, text and others – into a particular message. Electronic communication is interactive as it provides an opportunity for its audience to slot into a two-way communication. However, two-way communication is not a new discovery, but it enables geographically distributed groups to communicate through interactions concurrently through text, sound and video (e.g. press conferencing). There are several organisations that make use of electronic communication facilities such as the World Wide Web as an internal communications tool to improve teamwork at the work place. It allows many individuals to work on the same documents, conduct meetings and combine their research findings while located at different places. The internet requires that citizens change the way they listen and react to one another, and makes it possible to transmit and receive large amounts of information promptly, locally and internationally (Byrne and Associates, 2009:5).

2.3.2.2 e-Participation

Wikipedia (2009c) defines 'participation' as engaging in joint activities with the intention of accomplishing a common goal. Participation is goal-directed, and suggests that decisions be made and control be exercised with a certain objective in mind. In political science and the theory of management participation implies the direct involvement of citizens in political, economic or management decisions.

Wikipedia (2009c) explains that e-participation is a newly invented term which refers to "ICT-supported participation in processes involved in government and governance".

These processes may consist of policy making, administration, service delivery and decision making. Therefore, e-participation is closely associated with e-government and e-governance. Wikipedia (2009c) states that participation tools include Wikis, online social networking and blogs. The mechanisms of participation can include transparency tools (social translucence mechanisms), e-voting and reputation systems. The tracking and analysis for participation can include digital traces, data mining, data visualisation and simulations such as agent-based social simulation. Di Maio (2009:2) is of the opinion that it would be more valuable if people were asked to rate as well as provide their recommendations for improved service delivery. However, it is uncommon for most citizens to interact with government. The majority of people who do interact with government seldom communicate through electronic channels. It is also believed that service levels will increase as a result of greater efficiency, shorter waiting intervals and fewer interactions.

2.3.2.3 Types of e-government transactions

Pascual (2003:6) is of the opinion that the focus of e-government services should be on four main customers: citizens, the business community, government employees and government agencies. He further explains that in an e-government structure, individuals can request a particular government service, which they can access through the internet or some computerised mechanism. In other cases the government service is delivered by one government office, instead of many government offices. There are also scenarios where government transactions are completed without face-to-face contact with a government employee.

2.3.2.4 e-Democracy

Wikipedia (2009d) describes e-democracy as the use of ICT and strategies by democratic role players within political and governance processes. These democratic sections consist of governments, elected officials, citizen or voters, political organisations and the media. e-Democracy is a fairly new concept which has developed as a result of more people utilising the internet as well as the need to revive interest among citizens to become involved in the democratic process. It is believed that having

access is the means to create interest in the democratic process. The goal of e-democracy is therefore to promote positive attitudes among citizens in respect of government institutions, according to Wikipedia (2009d).

Wikipedia (2009d) mentions that ICT should be regarded as a means to an end and not be perceived as democratic or undemocratic in itself. ICT are tools that can be installed to accomplish specific goals. Therefore one has to consider the fact that there are institutional framework conditions which can either support or hamper the use of electronic means for the benefit of the processes.

2.3.2.5 e-Administration

e-Administration concerns the use of ICT for the internal administration of the processes of government and public organisations. It can also be a driving force to accomplish the transformation of an integrated public administration. e-Administration strives to accomplish strategic goals, which include improved efficiency, effectiveness, transparency and responsiveness; these in turn contribute to good governance, as mentioned by the United Nations Development Programme (UNDP) (2009b).

e-Procurement is an example of how e-administration can assist with improving service efficiency in government. If the procurement of different departments can be consolidated by online systems, higher-scale orders can therefore reduce costs, according to UNDP (2009b). Corruption can also be reduced when there is public transparency of procurement processes. Corruption can be minimised if administrative processes become computerised instead of being processed by persons.

2.3.2.6 e-Learning and e-education

UNDP (2009a) explains that the growth of e-literacy plays a crucial role in e-governance. e-Access is an essential requirement to empower citizens through e-governance, especially the poor, youths and women, in order for them to become actively involved in governance processes and to actually gain from e-government services. It also covers two dimensions of physical connectivity, namely the ICT

infrastructure and e-literacy, which refers to the capability of citizens to utilise technology, according to UNDP (2009a).

The concept of tele-centres in their numerous variations has received most attention in respect of providing connectivity to the masses. Shared community centres provide access to the internet and are often combined with training initiatives or government service centres. The rapid increase in mobile phone usage opens new opportunities for widespread ICT connectivity, benefiting more citizens of ICT, including marginalised groups in rural areas, as mentioned by UNDP (2009a).

Bridgewater Learning (2009) explains that “internet technology and learning management systems make it possible to internalise this learning to achieve several benefits”, which include the following:

- Reach: e-Learning provides an approach to educate a large group of individuals at a time, which can save training time as well as effort;
- Cost saving: e-Learning is cost effective, since the content of the study material can be used repeatedly; it also eliminates travel or the need to be physically present in a training room;
- Improved measurement: e-Learning enables reporting on what was learnt in a standard way as well as to ensure that the attempt has met its goals;
- Centralised and easier staff training administration: The administration can be centrally controlled, even if the staff members are based in different geographical areas;
- More productive staff: An e-learning environment makes it possible for courses to be completed in components over a number of sessions. Therefore staff members do not have to be absent from their offices for days at a time;
- Standardising staff knowledge: e-Learning also assists to make certain that staff members are all exposed to the similar training which is essential for reliable quality service delivery;
- Skills levels assessments: There needs to be an understanding of the existing skills level of staff in order to improve on staff knowledge; and

- Attracting self-starters and improved retention of current staff: If an internal learning programme is well known and well supported, it can draw talented persons to an organisation.

2.3.2.7 e-Security

DPSA (2001a) points out that in South Africa there is a public service IT policy framework, which was developed in February 2001. The framework mentions that e-government relies on the availability of the internet, and if websites are compromised, hackers will have access to government data and also adapt this information. There are several reasons for cyber-terrorists to attack websites, disrupt a country's telecommunications, power supplies or stock exchanges. This document highlights the recommendations for IT security policy in South Africa.

2.4 m-Services

Du Preez (2009:20) defines mobile government as the use of mobile technology, which includes mobile phones, laptops and personal digital assistants (PDAs) to render government services which could either be within or outside of government. The author is of the opinion that "m-Government should not be seen as a substitute for web-based government". Singh and Sahu (2007:484) (as cited in Du Preez, 2009:22) explain that mobile phones cannot provide all the functionality of the internet, but they do provide an additional channel to access government services. Du Preez (2009:23) explains that m-services refer to services that can be delivered by means of mobile and wireless technology (MWT). All MWT can be regarded as part of the collective term ICT, and therefore m-services can be regarded as part of e-services.

The EIU (2009:6) mentions that in its first publication of e-readiness rankings, there were less than 700 million mobile phones, the majority of which were found in rich first-world countries. Today more people have a mobile device and distribution has spread tremendously throughout the developing world. Approximately half of all mobile subscribers are from Asia and more or less 10% each are in Africa and Latin America. Du Preez (2009:43) states that public officials often communicate by means of mobile

phones and other devices with managers, staff and other government organisations, while communication with citizens and business often occurs by SMS, e-mail and other means. Singh and Sahu (2007:486) (as cited in Du Preez, 2009:43) are of the opinion that call centres are another alternative method which allows citizens to interact with government, since they provide citizens with a voice-driven menu that is available in the official languages with a standard choice of options.

Du Preez (2009:45) mentions other examples of m-services such as:

- Public schools which interact with learners and parents through SMS to notify them of important notices or future events;
- South African Revenue Service (SARS) notifies clients via their mobile phones of any transaction that has been processed; and
- HIV/Aids therapeutic counsellors who receive cell phones with special menu-driven software installed to compile information on their Aids patients during visitations. This information is submitted to a central database for authorised doctors or nurses to give expert and effective treatment.

Manohar et.al (2009:246) are of the opinion that “Governments must look at ways of providing e-government services via cellular phones.”

The concepts of e-services and m-services are better understood with examples from practice. There are various countries across the world as well as in South Africa who has implemented several e-government initiatives.

2.5 The global and national examples

2.5.1 International examples of e-government initiatives

Countries need to be internet-literate if they wish their citizens to utilise online services, according to EIU (2008:11). The Economic Intelligence Unit further notes that India is one of the leading countries in the world in respect of its e-inclusion programmes to provide citizens with access to public services, irrespective of their level of literacy. Another example is Malaysia, where the scientific laboratory of the government is

developing a WiFi-based internet literacy tool to enable older beneficiaries from rural communities to access the internet through their television sets. The EIU emphasises that for digital commerce to be feasible, there need to be suitable levels of education and some acquaintance with the internet.

The EIU (2008:11) explains that biometrics have played a vital role in developing a tool for governments to enhance access to public services. It also emphasises that India is making use of biometric technology, especially in the underserved communities, with practical technology. Another example is Andhra Pradesh, where the Department of Rural Development is issuing social security payments to citizens via their cell phones which are loaded with banking applications. This entails communicating with biometric smartcards via RFID (radio frequency identification) to validate the applicant's details.

A leading telecommunications provider in Latin America has incorporated SMS text to its live customer service and implemented automatic (computerised) voice self-service platforms. The company adapted the way in which it generally made contact with its customers; it also adapted its customer relationship management software and has produced a single environment for all customer interactions. This has enabled both incoming and outgoing SMSs to provide customers with more choices and also to circumvent silos and disconnection of customers throughout the process, according to McDonald (2009).

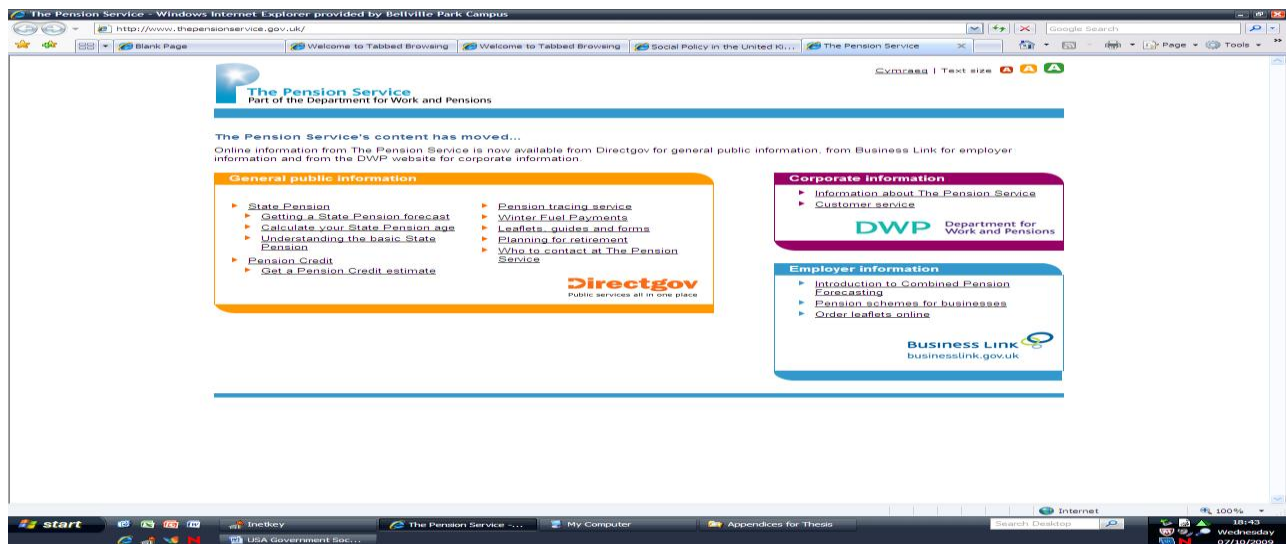
One of the fastest-growing banks in Europe has extended customer service to virtual services, which can be accessed anywhere within its organisation. This creates a sense of the bank being there and available for its customers. The company provides its customers with access to virtually any of its 600 employees, which improve its responsiveness, as mentioned by McDonald (2009).

McDonald (2009) explains that in the Middle East, a 3G service provider has created multimedia contact centres which combine video, voice and SMS, with voice recognition, avatars and other advanced self-service choices. The video call centre and

IVR technology has made it possible for seven million Egyptian customers to access self-help videos or to interact live with agents via video-enabled mobile phones.

The Department for Work and Pensions (DWP, 2009) in the United Kingdom (UK) explains that the pension service in the UK has online information available, which the general public can obtain from Directgov. The employer information can be obtained from Business Link and corporate information can be acquired from the website of DWP. There is a website for social policy in the UK which provides an overview of the Government of Welfare in the UK and also the main government departments that deal with social policy in the UK. If a person clicks on the relevant department, it provides a link to information about the department, its contact details, information pertaining to, for example, pensions and disability benefits and also the relevant application forms. One of the things that are noticeable is the fact that an applicant can actually trace the progress of a pension application. The applicant is provided with an option to apply online, telephonically, by means of a visit to the office, or by completing the application form and posting it. Figure 3 provides an example of the website for social benefits in the United Kingdom.

Figure 3: UK Pension Services Website

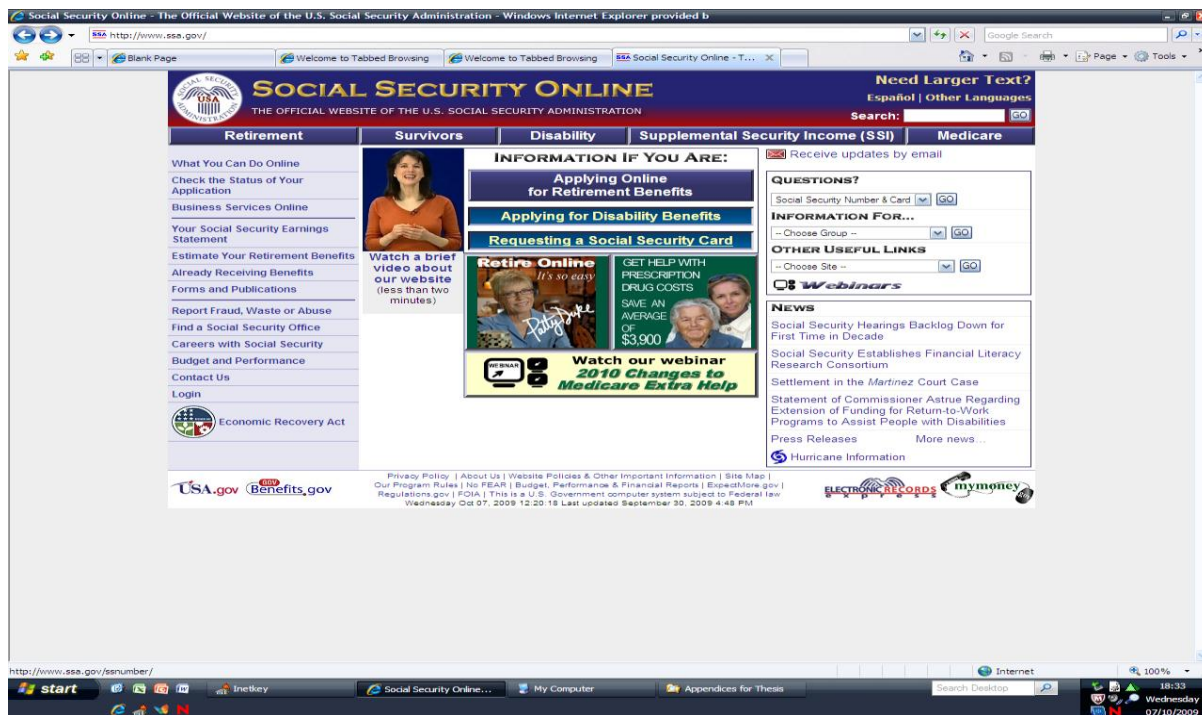


Source: The Department for Work and Pensions (2009)

The United States of America (USA) has an official website to apply for social security online (Department of Social Security Administration of United States of America, 2009). Figure 4 indicates that a person can apply online for retirement and disability benefits, supplemental security income, Medicare and also request a social security card. The applicant can decide on the method of application: telephone, online or consultation at the relevant office.

It is impressive to see that the USA has international agreements with other countries, especially European countries, in the event that people relocate to another country, whether this is permanent or for a specific period. This was implemented because of the challenges experienced by businesses, governments and individuals in search of future benefits or having to deal with taxation authorities in several countries. The social security administration has signed totalisation agreements with other social insurance programmes in various foreign countries. The agreements were to do away with the dual social security taxation that takes place when a worker from one country works in another country and is required to pay social security taxes in both countries on the same earnings. Another reason for this agreement was to fill the gaps in benefit protection for workers who have careers within the USA and another country. Figure 4 provides an example of the website of Social Security Online in the USA.

Figure 4: The Social Security Online Website (USA)



Source: The Department of Social Security Administration of USA(2009)

International Social Security Association

The International Social Security Association (ISSA) is regarded as the world's leading international organisation in linking (connecting) national social security administrations and agencies. ISSA offers information, research and professional advice as well as platforms for members to develop and promote dynamic social security systems and policy internationally (ISSA, 2008:i). The association has identified ten (10) aspects of project management and explains that the ICT manual deals with these 10 aspects: project definition, project manager, stakeholder involvement, communication, training, planning and managing human resources, ICT project management and risk management, technology, project control and monitoring, and assessing project progress – independent project review.

These ten aspects are relevant to all countries, irrespective of the existing status of their ICT systems or the type of social security system in place. In some instances the way the advice is interpreted will depend on the local situation of a country. ISSA (2008:3)

mentions that there is a temptation among countries to adopt the latest technology when starting a new project. Ten years ago there were cases where client-server architectures with Windows NT hosts were advocated for ICT projects in developing countries, despite the fact that even in Europe and in the United States there was a severe shortage of skilled persons with the relevant experience. There are institutions in Europe which are still finding the final stages of their equivalent architectural visions very challenging. ISSA (2008:4) suggests that the technology selected has to be appropriate in terms of the available skills and national infrastructure, as training can be very expensive and high rates of skilled staff turnover can be experienced as a result. Organisations should strive to match their technological ambitions to the local environment.

2.5.2 National e-government initiatives

SITA (2002:Slide 13) mentions that all nine provinces in South Africa have websites that provides provincial information. Two of these provinces are ahead – Western Cape and Gauteng – as they have the advantage of a developed communication infrastructure because they are established economic centres.

Table 6: South Africa: Internet usage and marketing

| YEAR | USERS | POPULATION | USAGE SOURCE |
|------|-----------|------------|-----------------|
| 2000 | 2,400,000 | 43,690,000 | ITU |
| 2001 | 2,750,000 | 44,409,700 | IWS |
| 2002 | 3,100,000 | 45,129,400 | ITU |
| 2003 | 3,283,000 | 45,919,200 | Wide World Worx |
| 2004 | 3,523,000 | 47,557,900 | Wide World Worx |
| 2005 | 3,600,000 | 48,861,805 | Wide World Worx |
| 2008 | 4,590,000 | 43,786,115 | W.W.W |

Source: Internet World Stats (2008:2)

Table 7: Internet Usage Statistics for Africa

| AFRICA | Population(2010 Est.) | Internet Users Dec/2000 | Internet Users Latest Data | Penetration(% Population) | User Growth(2000-2010) | % Users in Africa |
|---------------|------------------------------|--------------------------------|-----------------------------------|----------------------------------|-------------------------------|--------------------------|
| South Africa | 49,109,107 | 2,400,000 | 5,300,000 | 10.8 % | 120.8 % | 4.8 % |

Source: Internet World Stats (2008:2)

The Internet World Stats (2008:1) mentions that, according to the US Census Bureau, the estimated population of South Africa is 43,786,115 for the year 2008. SITA (2002:Slide 14) mentions that in South Africa there are several examples of government to citizens initiatives, such as the information kiosks where information in respect of the provincial government can be accessed. The Khanya Project is another example, where computers were provided to schools to enable learners to access the internet and also get their own e-mail addresses. The Gauteng Online initiative provides internet access to all schools within the Gauteng Province and the geographical information system (GIS) initiative provides access to information on the geography of the province. The provincial automated library services are available on Provincial Automated Library Services (PALS). According to SITA (2002:Slide 18), the government has also established multi-purpose community centres and computer centres in informal settlements, where containers are utilised to provide training; this is called the Dot.za initiative. SITA (2002:Slide 18) draws attention to the DOC warehousing initiative, which consist of 102 systems grouped together to enable ministers to share information.

M-Net in South Africa, a leading premium television entertainment provider, improved its customers' experience by creating an intelligent customer front door that leverages sophisticated speech recognition to improve customer satisfaction with voice platforms, and to break down the barriers between self-service and live service when customers need to talk to a live agent. Using speech technology, coupled with built-in business processes, they can quickly identify the customer's needs and intent, and make a determination on using automated or live service. Cross Channel Conversations refer to

customer services being rendered across the phone, web, branch and mobile channels. Solutions based on the Genesys cross-channel conversations initiative will include the following features:

- Support for the widest breadth of channels: Cross-channel conversations support any interaction type as part of a customer conversation – spanning phone, Web, chat, video, mobile, virtual assistants, SMS and voice self-service;
- Proactive management of conversations across channels: No matter what interaction channel a customer uses over time, cross-channel conversations manage one customer conversation at a time, so that the enterprise can optimise the outcome of customer interactions; and
- Pooling or mobilising resources across the enterprise to leverage talents: Cross-channel conversations align every conversation with the ideal resource based upon business value, skill set and availability, so that an enterprise can provide its best resources to address customer needs, as explained in McDonald (2009).

The provincial departments have implemented various electronic systems to improve on their service delivery. According to SITA (2002:Slide 15), a national and provincial information management system was developed in order to coordinate, monitor and support planning of activities in an integrated manner. It is also aimed at building capacity and knowledge sharing within the three spheres of government. The main objective of this system is to connect national, provincial and local government. This project was at level 1 in terms of the phases of e-government according to SITA (2002:Slide 15).

The Department of Communication strived to have virtual collaboration for its management via a video- and audio-streaming solution. This system will enable management to collect data and information and share it with one another, only internally as mentioned by SITA (2002:Slide 24). The Department of Public Service and Administration focused on Cabinet members to have a secure environment in which they can share information and knowledge by means of a virtual collaboration system. The Department of Justice implemented three projects, of which one is State Attorney

Systems (SAS), which automates processes for state attorneys; another is the Guardian Fund, which will focus on the administration and management of estates for minors; and the last is the court pilot process, which fosters automated interaction between courts, attorneys and sheriffs. The national Department of Health (DoH) has the National Health Institute South Africa (NHISA), which coordinates all DoH information systems to prevent duplication and to encourage interoperability between systems and assessing evolving information needs.

SARS

The South African Revenue Service (2007) (as cited in Naidoo, 2007:325) states that in 2001 SARS introduced its electronic filing (e-filing) initiative, which is aligned with the e-government strategy of government. The e-filing of tax is a joint effort of SARS and private businesses, with the main purpose to facilitate the electronic submission of tax returns and payments by taxpayers and tax practitioners. SARS launched e-filing kiosks in August 2005 at several branches and worked closely with the four major commercial banks on a payment channel project. SARS has implemented a single view of the customer by deploying the “Siebel Public Sector Single View of the Taxpayer’s Solution” before it installed the new system. Initially SARS experienced several business integration challenges, while information from taxpayers was distorted and captured in different systems. As a result there was duplication, taxpayers were frustrated and in the end there was a loss in revenue, according to the e-Business Handbook (2005) (as cited in Naidoo, 2007:325).

The success of SARS, according to Naidoo (2007:325), can be attributed to several factors. It had strong political support from government and had a zero-tolerance approach to fraud within departments. The successful implementation of the e-filing initiative contributed to the increase in SARS revenue by more than R100 billion since the inception of its e-government initiative in 2000 and 2001. In 2007 SARS designed a more straightforward tax return form, making the whole process easier. The e-filing system has assisted SARS to create a single analysis of the tax payer and keep their records up to date. It has also helped SARS to have a general understanding of the risk

profiles of customers and industries. The electronic service involves a number of valuable services, such as transactions which can be processed on the same day, which addresses the problem of backlogs.

SARS also provides a step-by-step guide on its website to assist and guide its customers on tax and related issues. e-Filing provides tax payers with an option either to pay their taxes manually or online. Naidoo (2007:325) explains that the new system has made it possible for SARS to:

- Integrate all its sections to provide comprehensive, updated taxpayer information;
- Lower operational costs; and
- Improve citizen service through improved response times in handling tax interactions.

Cape Online strategy

Naidoo (2007:326) mentions that the Cape Online strategy in the Western Cape Province of South Africa was launched in June 2003 to provide access to citizens in respect of online public services, which are available at anytime from anywhere. The goal of Cape Online is to develop and enhance the services rendered by the Provincial Administration to become more efficient and effective. The Western Cape is ahead of national government in terms of its e-citizen interaction and launched its trilingual portal in April 2004. These services are more informational, however, with the goal of providing online provincial transactions.

Department on Transport: eNatis

The Department of Transport modified the national traffic information system (Natis) into an electronic national information system (eNatis) worth R408 million. The goal of eNatis was to provide enhanced law-enforcement capabilities, particularly transactions over the internet, automated teller machines, online registration of vehicles by financial institutions, and administrative adjudication of road traffic offences (AARTO), as well as to provide a new system to administer driving and learner's licence bookings online (Naidoo, 2007:326).

The eNatis system was launched on 13 April 2007 and crashed (broke down) one day after the launch. As a result, the licensing and testing stations throughout South Africa were disrupted for a few months, since eNatis was completely broken down in some areas or brought about very slow processing of transactions. The motor industry and citizens were enraged with the long queues at these stations. According to Naidoo (2007:327), the eNatis system experienced capacity problems because staff members did not have a basic understanding of how the system works.

Despite the challenges experienced in the initial phases of its implementation, eNatis had quite a few successes in later months. In October 2008 it processed 14,387,405 transactions, which was the most per month since the launch of the system in April 2007. This increase can be mainly ascribed to the implementation of the pilot phase of the administrative adjudication of road traffic offences (AARTO) operated by the Tshwane Metropolitan Police Department. The system was able to handle the large volume of transactions with ease and without any interruption. There were also numerous updates of the system in October 2008 without affecting service delivery.

Naidoo (2007:327) notes that in December 2008 eNatis processed almost 15 million transactions (14,830,370), which was the highest number per month. This high number could have been the result of two factors, functionality and document processing. On 12 December 2008 a feature was implemented to prevent the issuing of a licence disc to a vehicle if any other vehicle of the owner in question was still unlicensed. This was introduced to oblige vehicle owners to license all their vehicles before they apply for another licence disk. This added to the increase in vehicle registration and related queries and reports. The department recorded more administrative adjudications of road traffic offences (AARTO) and follow-up notices were forwarded the offenders who had not reconciled their outstanding fines, which contributed to an increase in system-to-system transactions performed by the printing contractor.

On 25 May 2009 eNatis was offline for several hours after a disaster recovery exercise. The disaster recovery centre (DRC) of the eNatis system conducted routine tests during

the morning, which prevented any transactions from being processed. Plans were then drawn up to implement a switchover system which would allow for almost immediate switching between the data centre and the DRC. In June 2009 a total of 37,234 new vehicle registrations were processed, which reflected a decrease of 25.58% in comparison to June 2008, when 50,031 new vehicles were registered. Naidoo (2007:327) explains that for June 2009 eNatis recorded a total of 13,722,302 transactions compared to the increase reflected for the month of May 2009.

Department of Home Affairs

Naidoo (2007:328) mentions that the Department of Home Affairs (DHA) manages the central registry of all citizens and permanent residents in respect of births, deaths, marriages and related records. The Department contracted several institutions, including Unisys, to develop the home affairs national identification system (HANIS). The Department of Home Affairs (DHA) has implemented HANIS as a result of the South African government and private sector losing approximately US\$200 million annually through health and welfare, credit card and cheque fraud stemming from false IDs. Naidoo (2007:328) explains that DHA was of the opinion that HANIS would combat fraud by providing instant verification at the point of service.

The intention with HANIS was to implement a reliable biometrics-based computerised identification/verification system to eliminate identity-related fraud. Unisys provided assistance to DHA in developing, building and implementing four other subsystems:

- The intake of records, demographics and fingerprint data are captured by the image capture subsystem into the HANIS database;
- The control subsystem monitors and manages the HANIS environment, collects statistical and audits information concerning transactions, system events, failures and operational actions;
- The verification subsystem makes comparisons in respect of individuals versus information stored on the AIFS to establish whether the identity is correct; and
- The infrastructure subsystem connects all the other elements.

Naidoo (2007:329) draws attention to the fact that DHA has implemented the HANIS back record conversion project to scan and absorb the approximately 30 million hardcopy fingerprint records. This project takes the fingerprints of all the identity document applicants and searches for them against the existing database.

The United Nations e-governance report of 2008 explains that the “gap between e-information, e-consultation and e-decision making is still wide for developing and developed countries” (Manohar et.al. 2009:245).

2.6 Summary

South Africa has put in a lot of effort to meet the commitments of the World Summit on the Information Society (WSIS) Declaration of Principles and Plan of Action, of which it is a signatory. In 2007 South Africa was ranked 35th, in 2008 it was ranked 39th and in 2009 it was ranked 41st out of 70 countries in terms of its e-readiness. The South African government experience several challenges in terms of transforming the conventional government into electronic government.

Other challenges faced by the South African government with respect to the electronic model include issues of privacy, legal barriers, education, and addressing the lack of willingness and awareness among government institutions, consumers, companies and SMMEs. e-Readiness figures are often used to illustrate the digital divide (inequalities in access to technology), and conversely digital divide studies may measure a country’s level of e-readiness. In order to avoid confusion, the focus of this study is to determine the readiness of both SASSA and its customers to make use of electronic services for improved service delivery.

e-Readiness assessments make use of quantifiable indicators that provide a synopsis of the circumstances of a specific country to make comparisons and undertake future planning. e-Services and m-services are the way of the future, especially when considering convenience and improved service delivery. If they are well-planned for and used in an innovative way, they can increase service delivery.

Chapter 2 has focused on e-government and relevant concepts, examples, legislation as well as benefits and challenges. The problem statement of this research draws attention to the e-readiness of SASSA Cape Town and its customers. Chapter 3 will discuss e-readiness assessment tools.

CHAPTER 3: THE E-READINESS MODEL

3.1 Introduction

Budhiraja and Sachdeva (2002:1) explain that the gap between the rich and the poor as well as developed and developing countries is enlarged by the “information age”, which creates a society divided between those who have information and those who do not. The countries which are better equipped in obtaining resources have easier access to new technologies and also make better use of them. It is therefore essential that developing countries intensify their efforts to resolve the challenge and take full advantage of the opportunity offered by the information-based economy. In the “information age” the countries without many resources can look forward to speeding up their development, should they be able to expand their knowledge base and implement an adequate ICT-related infrastructure that can allow these countries to integrate it into their knowledge-based economies. This is a significant suggestion to take into consideration for developing countries such as South Africa. The EIU on the other hand is of the opinion that the digital divide is disappearing (“eroding”) although this cannot be accurately calculated by comparative scores such as the digital economic rankings (EIU, 2010:3).

Since the focus of this study is on e-readiness of the SASSA Regional Office Western Cape it is only appropriate to define assessment as well as an e-readiness assessment. Oyomno (2004:83) explains that in general an assessment aims to provide a better understanding of a particular situation for a specific reason. An assessment reveals needs, potential benefits, opportunities and challenges. The information collected from an assessment is utilised to review, refine and re-focus the purpose and objectives of an institution. The information collected is also used to determine the resources necessary to develop intervention strategies. An e-readiness assessment is a modern development that is associated with the rapid development of internet-based applications and their potential to influence social and economic development (Oyomno, 2004:83). Electronic readiness assessments provide a better understanding of the environment that can ensure effective management of related risks. e-Readiness

assessments can minimise complexity and associated uncertainty, which can in turn increase the chances of success.

The purpose of this study is to determine the level of e-readiness of the SASSA Regional Office Western Cape and the willingness of its customers to make use of electronic services. This chapter focuses on e-readiness assessment tools from various sources such as the Economist Intelligence Unit, Gartner, Al-Omari, A. & H., Oyomno and Ernst & Young. It starts by defining e-readiness, followed by a discussion on e-readiness assessment tools.

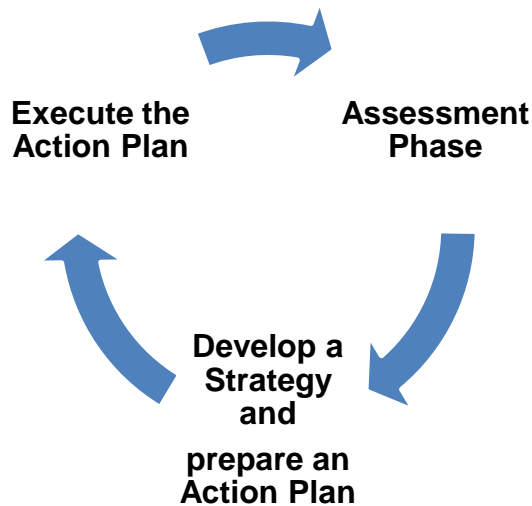
3.2 e-Readiness measuring tools

Bridges.org (2005:2) states that there are a small number of organisations that have made their assessment methods available for use by others; as a result there are a limited number of ready-to-use assessment tools to determine the e-readiness of countries. There are also a variety of reports and other resources that can be adapted into e-readiness assessment tools, such as survey results, third-party reports and position papers. The e-readiness assessment tools include those that are described as assessment methodologies with ready-to-use questionnaires as well as those that focus on assessment methods which can be acquired from other resources. The majority of the tools focus on internet and other ICT usage within a wider economic, socio-political context with a few of these tools assessing access to and utilisation of ICT rather than e-readiness. The term “assessment tools” can refer to both ready-to-use questionnaires as well as other resources that could be amended into assessment methods.

e-Readiness assessments are the first phase from which strategies and action plans are developed. This means that it is also necessary that the society, economy and socio-economic divisions be assessed. In Chapter 2 of this study (see 2.2.3.3) mention is made of the e-readiness process developed by GeoSINC International (2002:6), which indicates that such a process comprises of three (3) main phases, usually undertaken sequentially. The researcher is of the opinion that it is best to illustrate the e-readiness process by means of a figure. Therefore, figure 5 demonstrates that Phase

1 refers to the assessment; phase 2 is the development of a strategy and preparation of an action plan; with phase 3 being the execution of the action plan.

Figure 5: e-Readiness Process



GeoSINC International (2002:7) is of the opinion that the main purpose of the e-readiness process is to identify how ICT and involvement in the digital economy can assist a government to reach its objectives more punctually in respect of economic and social improvement and growth. SASSA provides grants to citizens in South Africa as a means of eradicating poverty. Part of its millennium goals (2014) is to reduce poverty in the country by half. The researcher is of the opinion that electronic services can certainly speed up grant application processes, queries as well as addressing complaints. By doing so, it can render speedy services and reach its targets at a faster rate.

Oyomno (2004:83) mentions that several e-readiness tools have been developed and utilised. The Computer Systems Policy Project (CSSP) (1998) focuses on existing infrastructure; the Centre for International Development (CID) (2000) focuses on society, which are classified as tools that focus on communities and society. The Asia Pacific Economic Cooperation (APEC) (2000) focuses on e-commerce readiness and the World Information Technology and Service Alliance (WITSA) International Survey of

e-Commerce (2000) which focuses on countries while other e-readiness assessment tools assess the distribution of ICT in developing countries.

Various e-readiness models are globally used to assess the degree to which organisations are prepared to render services in respect of ICT. The e-readiness assessment tools which have been applied in South Africa will be listed as well as a few other tools that were found relevant to this study. Bridges.org (2005:3), notes that a total of fourteen (14) e-readiness assessment tools have been implemented in South Africa (Table 8).

Table 8: e-Readiness Assessment Tools used in South Africa

| | |
|--|--|
| 1. WITSA: International Survey of e-Commerce | 8. Kenny's Prioritising Countries for Assistance to overcome the digital divide (World Bank) |
| 2. Crenshaw & Robinson Cyber-Space and Post-Industrial Transformation: A cross-national analysis of internet development (C&R) | 9. Pyramid |
| 3. Economist Intelligence Unit (EIU 2004): Focus on e-Business Readiness | 10. NRI 02-03, 03-04 |
| 4. IDC/ISI Information Society Index (ISI) (report) | 11. University of Maryland (CIDCM): Focus on qualitative assessment based on past performance and current internet pervasiveness |
| 5. World Bank, Knowledge Assessment Matrix (KAM): Focus on K-economy | 12. ITU-Digital Access Index (DAI) |
| 6. McConnell International (MI): Focus on infrastructure, digital economy, education and government. | 13. International Telecommunication Union (ITU): Focus on Telecom |
| 7. Metric Net (M-N): Focus on e-Economy | 14. AT Kearney/ Foreign Policy Magazine Globalisation Index (GI) |

Source: Bridges.org (2005:3)

The 14 abovementioned e-readiness assessment tools implemented in South Africa provide a good starting point when implementing an e-readiness assessment. The EIU has been assessing the e-readiness of countries since the year 2000 to obtain an understanding of ICT and the utilisation thereof for economic and social benefit. The following section will discuss the EIU and its contribution towards ICT.

3.2.1 Economist Intelligence Unit (2010)

The focus of the EIU shifted from ranking countries in respect of e-readiness to ranking the “digital economy” of countries (see 2.2.3.7 of this study). The EIU makes use of six indicators to measure the digital economies of the 70 countries in their study which comprise of connectivity and technology infrastructure, business environment, social and cultural environment, legal environment, government policy and vision and lastly the consumer and business adoption.

The EIU has made several changes to their model in 2010 to ensure that the digital economic rankings keep up with trends in the digital world. The EIU made four changes in respect of the “connectivity” category of indicators as well as some in the “social and cultural environment” category. The new indicators include the following:

- A “broadband quality” indicator was included to determine the distribution of fibre-optic access lines to access broadband;
- The “mobile quality” indicator assesses the contribution of third generation (3G) and fourth generation (4G) mobile subscriptions to the total subscription of the country;
- To measure the affordability of broadband, the EIU mentions that the connection speed is now 256 kilobytes per second (kbps) for the lowest digital subscriber line (DSL). This was previously 128kbps;
- Previously the scoring scale for internet use of a population was 75% which has now been amended with 100% and considered to be the maximum penetration a country could have; and
- The total enrolment in tertiary education was added to the “educational level indicator” to quantify the number of students with a higher education.

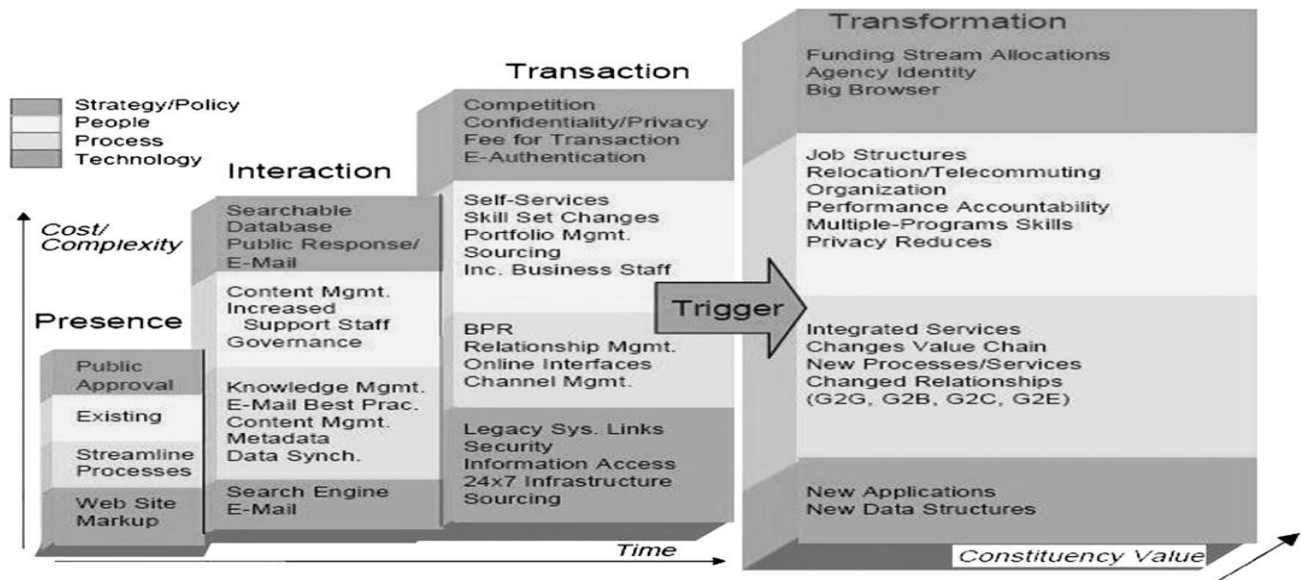
No standard online questionnaire developed by the EIU was available to utilise as a guide to conduct an e-readiness assessment.

3.2.2 Gartner's four-stage model

Al-Hashmi and Darem (2008:152) explain that Gartner's four phases of e-government model classifies e-government into four distinct phases. This can serve as a reference to position where a project fits in the overall evolution of an e-government strategy. Zarei, Ghapanchi and Sattary (2008:200) illustrate Gartner's four stages of e-government (Figure 6). The first step is to develop a virtual environment on the internet that is observed in the presence stage, which focuses on making information accessible to the public. Al-Hashmi and Darem (2008:152) add that this stage is perceived as a website that simply provides information and can be regarded as passive in nature. This information-providing website is often seen as fulfilling the same level of functions as a paper brochure.

The second stage is referred to as interaction, which focuses on providing a website with a search facility and also providing the forms and sites to the public. The interaction stage website provides contact by means of e-mail. This website is interactive in nature, since information responses can be made. The third stage is called transaction which involves the online implementation of public services such as the payment of outstanding balances of accounts and receiving licences. The transformation stage is the final stage and perceived on national and regional levels to offer complete communication between the government departments and non-governmental organisation for integration purposes. This also includes transformation of how government services are considered and organised. The researcher was unable to obtain a free online questionnaire developed by Gartner.

Figure 6: Gartner's four-stage model



Source: Zarei, Ghapanchi, and Sattary (2008:201)

3.2.3 e-Government readiness assessment model

Al-Omari and Al-Omari (2006:841) designed an e-readiness assessment model with six key factors for the implementation of the e-government initiative globally. These factors are regarded as representative of the basic components that need to be assessed prior to a successful initiation of an e-initiative. These building blocks comprise of organisational readiness, governance and leadership readiness, customer readiness, competency readiness, technology readiness and legal readiness. Al-Omari and Al-Omari (2006:841) further mention that e-government planning methodology comprise of four phases namely strategic planning, readiness assessment, implementation plan and e-government plan. The first phase, namely strategic planning was implemented by the Jordan Government that has also developed goals, objectives and a vision. The first building block, organisational readiness assessment, takes into consideration the bureaucratic nature of especially government organisations with their top-down approach, long delays in their processes, difficult procedures and duplication of their work, documents and data. This building block is divided into business processes and organisational hierarchical structure.

The process flow is often challenged with delays which are created by a high level of management and experts who facilitate the application process. The current level of process efficiency needs to be re-evaluated and should be based on common criteria for improved business processes. Improved business processes can lead to an adjustment in respect of the hierarchical structure, roles of both the employees and the organisation, and also the laws that direct the organisation. The organisational readiness assessment presents the following guidelines:

- “Percentage automation;
- Percentage process electronic delivery;
- Average number of journeys to receive the service;
- Average time to complete the service delivery; and
- Average number of stations visited by citizens to complete the service” according to Al-Omari and Al-Omari (2006:842).

Al-Omari and Al-Omari (2006:842) are of the opinion that e-government requires of government to transform its business processes from within individual departments and across government. The guidelines provided in respect of this building block include the following:

- “Identify a service manager with end-to-end responsibility for service delivery;
- Identify a service-level agreement, the time, quality and cost evaluation and customer service satisfactory;
- Develop new policies, functional and non-functional requirements; and
- Define business continuity planning and content management process” as mentioned in Al-Omari and Al-Omari (2006:842).

The customer readiness building blocks explain that electronic government focuses on all citizens and businesses that government serves. These include individuals who have been affected by physical, social, economic, geographical, or cultural challenges. The readiness of customers is determined by the level of accessibility for them, culture and economic status. The most important concerns in respect of customer readiness are accessibility and trust. The competency readiness building block refers to the reality of

skilled personnel in the public sector. Al-Omari and Al-Omari (2006:841) recommend that government needs to consider the retention of all essential skills of public servants, or acquire such skills from external entities in the private sector.

The technology readiness building blocks entail all necessary technologies that make the e-initiative possible which include hardware, software, communication and network infrastructure. The availability of professional government skills in respect of technology and the provision of various technologies to make e-government possible are the most important considerations. The focus of these building blocks is on website design and implementation, web tools that can ensure easy access to the government portal, bilingual portals, low-cost devices to access the internet and maintaining customer security and privacy. The communication technology infrastructure (CTI) needs improvement in some areas where:

- “The communication network was designed for voice transfer;
- Low-speed digital nation networks do not exist, which means barriers in developing data transfer;
- The current network cannot provide advanced voice features; and
- The current network cannot provide video services” as stated in Al-Omari and Al-Omari (2006:843).

Legal readiness implies that individual organisations that are interested in implementing the e-initiative should conduct a separate legal assessment for their specific case. The legal policies provide a safety net for all government activities. It is therefore important to consider the legality of the following:

- “Legality of conducting business electronic transactions;
 - Legality of electronic document exchanging;
 - Legality of sharing of application data across organisational boundaries;
 - Legality assignment for internet transactions;
 - Legality of electronic payments;
 - Legality of notifications, management, physical service delivery and contracts;
- and

- Verifying identifications, electronic signatures and authentication procedures” as pointed out in Al-Omari and Al-Omari (2006:843).

The researcher could not find a free online e-readiness assessment questionnaire developed by Al-Omari and Al-Omari (2006).

3.2.4 e-Government capability maturity assessment framework

Oyomno (2004:83) presents an inclusive framework to assess the maturity of government capabilities in respect of e-government. The author proposes an e-government capability maturity assessment framework that is based on six capability factors, six levels of maturity and a mapping function that traces the logistic path of growth curves. This framework offers both a quantitative and qualitative assessment of government institutional capabilities for e-government.

Oyomno (2004:83) is of the opinion that the e-readiness tools that have been applied are inadequate and inappropriate in several ways. The existing e-readiness assessments tools have a reasonable general applicability to communities, societies, nations and economies. In a government scenario the tool can be commonly applied, however, it does not provide adequate detailed information to make a conclusion on whether the organisation is e-ready or not. This information is not so helpful for an organisation that desires to determine the priority and required levels for investing in e-government initiatives.

Oyomno (2004:84) presents the capability maturity assessment and explains that it strives to find a point or a set of points on the maturity scale at which an organisation can be positioned. Despite the fact that the maturity scales are generally uninterrupted, different locations can be established to define the different levels of maturity in each of the capability factors. Maturity represents a sense of growth. A maturity assessment can be regarded as positive, since it suggests in which areas an organisation needs to grow and improve. A maturity assessment provides richer and more practical information than a readiness assessment, which tends to generate a yes or no answer in respect of e-

readiness. The information gathered from a capability maturity assessment reflects the existing maturity level, capabilities and challenges in respect of e-readiness.

Oyomno (2004:84) explains that several capability maturity models have been developed, such as the models of Greiner (1972), Gibson and Nolan (1974), Nolan (1979), Carnegie Mellon University's Software Engineering Institute (1987), and the Software Engineering Research Centre (SERC) (2002). The six capability factors identified by Oyomno (2004:87) are:

- Development and business agenda (DBA);
- ICT application portfolio;
- ICT infrastructure development;
- Human and intellectual assets ("capital");
- Governance and institutional infrastructure; and
- Leadership and management.

The researcher is of the opinion that these six capability factors are quite similar to the six building blocks identified by Al-Omari and Al-Omari (2006:841).

Oyomno (2004:91) identifies six capability maturity levels:

- Business-as-usual level;
- Online information services (publishing) level;
- Online interactivity level;
- Online transactional services level;
- Service integration level; and
- Organisational transformation level.

Oyomno (2004:93) goes on to explain that the use of the capability maturity learning curve enables an organisation to depict its actual situation. At the beginning the capabilities of an organisation experience slow growth because of inactivity as a result of resistance to change and other cultural factors. The organisation will steadily build more knowledge, competence and confidence as changes are introduced, which will lead to its capabilities accelerating and peaking. Then the growth rate will decelerate. If

there are equal intervals for the maturity levels, this implies that these can be expressed as capability maturity indices (CMI).

3.2.5 Delhi government e-readiness measuring tool: e-Readiness roadmap of India

The government of India has an initiative called the National e-Government Plan (NeGP) to provide citizens with ICTs, as mentioned by Wordpress.com (2007) during the launch of the e-Governance Roadmap for Delhi. The vision of the NeGP is to make government services accessible to ordinary citizens in their neighbourhood through general means of service delivery for efficient, transparent and reliable services. The government of India conducted an e-readiness assessment in 2003 that served as an initial attempt to rank the e-preparedness of India's States and Union Territories and Central Ministries, Wordpress.com (2007). The annual e-readiness report of 2004 addressed the national efforts to narrow the digital divide and highlighted success stories in respect of ICT for economic development. The 2005 e-readiness report presents a comparative analysis of state ranking for the period of 2003 to 2005; it also assesses various aspects such as whether the e-governance/e-readiness initiatives have integrated the marginalised sections of the population, the value of the information gathered as well as the sustainability of the initiative.

The e-Governance Roadmap (EGRM) was developed by Ernst and Young India and a study was conducted in respect of the needs and expectations of various stakeholders and after convening with ICT officials, heads of departments and political leaders as mentioned by Wordpress.com (2007). The National Institute for Smart Government (NISG), Hyderabad was responsible for the standardisation of the EGRM. The government of New Delhi launched the EGRM on 10 January 2007. The chief minister draws attention to the fact that the EGRM should be regarded as a continuous and ever-changing exercise. The vision with the development of EGRM was to assist in improving governance by identifying prioritised e-governance initiatives and services that need to be rolled out in the next five years. The e-Governance Roadmap presents guidelines as to how the state can go about providing accurate services to its citizens in

an improved manner. The goals of the roadmap assisted with the formulation of the vision statement: “The government of NCT of Delhi aims to create a state where all citizens can transact with the government electronically, with most of the services being provided online while ensuring that there is no digital divide” (Ernst and Young, 2009:9).

An e-government strategy was developed for the state of New Delhi and consists of a portfolio of ICT applications that will provide electronic services of the highest quality to citizens (G2C), business (G2B), other government departments (G2G), employees (G2E) and non-governmental organisations (G2N). The strategy also provides an e-government infrastructure and a step-by-step plan on its implementation (Ernst and Young, 2009:9). The authors assessed the level of e-readiness of government departments prior to recommending e-governance initiatives to government. In order to determine the prioritised departments a study was conducted by means of a structured questionnaire and a subsequent meeting with the Nodal IT Officers of each department. e-Governance initiatives have been identified for various sectors such as health, welfare, education, finance, revenue, infrastructure, support and administration. These initiatives have been rated in terms of importance and practicality, and 29 have been identified for immediate implementation. The government of India has also developed a Capacity-Building Road Map (CBRM) that incorporates the institutional capacities that should be developed to ensure the successful implementation of the EGRM.

Ernst and Young (2009:10) state that the level of e-government maturity in the National Capital Territory of Delhi is at an advanced level. These authors, however also emphasize that despite this advance there are problems in respect of some areas of citizen services, services to businesses and G2G applications that should be resolved. EGRM suggested that a comprehensive and robust implementation blueprint is essential for the execution of the vision. The e-government strategy document provides clear-cut direction on what tasks need to be performed to realise the e-government vision in terms of what, how, when and by whom. This is followed by a design of an e-government programme that breaks down the strategy into implementation details (Ernst and Young, 2009:10).

Ernst and Young (2009:47) suggest that governments would require tools, guidelines and methodologies that would enable them to plan a more informed and successful implementation of the e-governance initiatives as identified in the Roadmap to achieve the appropriate level of e-governance. Five strategy frameworks were identified:

- An institutional and capacity building framework;
- A policy/legal framework;
- A government process re-engineering (GPR) framework;
- A funding framework; and
- A prioritisation framework.

The Delhi Government e-Governance Roadmap was designed to assess the infrastructure of the ICT department as well as e-government and its challenges in respect of the implementation of e-governance initiatives. The roadmap consisted of 18 questions that addressed the following matters: the ICT infrastructure focused on the number of computers available in the ICT Department; the ICT budget determined the actual expenditure on ICT; the number of trained or qualified ICT staff to implement e-governance; ascertaining whether there is a citizen database in any form; determining if the ICT Department has its own management information systems (MIS); establishing how often the ICT Department updates its website; determining whether the ICT Department has any e-government initiatives and the functions performed by the ICT Department and lastly, determining whether the ICT Department has an ICT security or disaster recovery policy. The departments were then categorised as Leader, Aspiring Leader, or Expectant and Average Achiever based on this analysis. A detailed study was conducted on each priority department to align these to the sectoral priorities to determine the role of e-governance in every department.

Both India and South Africa are developing countries and share similar contexts in respect of ICT infrastructure, social demands such as poverty and a high unemployment rate. The researcher selected the Delhi e-Governance Roadmap to assess the ICT department of SASSA Western Cape Regional Office as it is detailed and specific. The questionnaire was also freely available online. The questions are straightforward and

uncomplicated. It is worth noting that Ernst and Young (2009:10) indicate that the level of e-government maturity of the National Capital Territory of Delhi is at an advanced level.

3.3 Aspects to consider when conducting an e-readiness assessment

Budhiraja and Sachdeva (2002:12) emphasise the areas that need to be considered when embarking on an e-readiness assessment. The e-readiness assessments that have already been conducted need to be reviewed, since there are various reports in existence. There is a need for greater coordination and insight in respect of e-readiness projects to circumvent duplication. The results obtained from an e-readiness assessment should be made public and circulated, since several agencies or organisations neglect this step. It is also important to reveal the outlook of all role players involved throughout the e-readiness process and its implementation. The assessment results should be efficiently used in developing an e-strategy that will indicate how precisely e-readiness will be enhanced and how ICT will be utilised to be of advantage to a country or organisation. Budhiraja and Sachdeva (2002:12) explain that action plans should be developed realistically and should consist of attainable steps that deliver “scalable, sustainable, and replicable results”.

3.4 Combined model as suggestion for SASSA Regional Office

Western Cape

The researcher believes that the e-readiness assessment model presented by Al-Omari and Al-Omari (2006:841) can assist SASSA Western Cape Regional Office to first ensure that the “basic components” are in place before the agency embarks upon an e-initiative. The building blocks recommended by Al-Omari and Al-Omari (2006:841) comprise of organisational readiness, governance and leadership readiness, customer readiness, competency readiness, technology readiness and legal readiness. SASSA would therefore begin by assessing the readiness of the agency, leadership as well as the customers as the first step. It is also important that SASSA obtain quality technology and ensure that its legal infrastructure can deal with the legal demands of e-services.

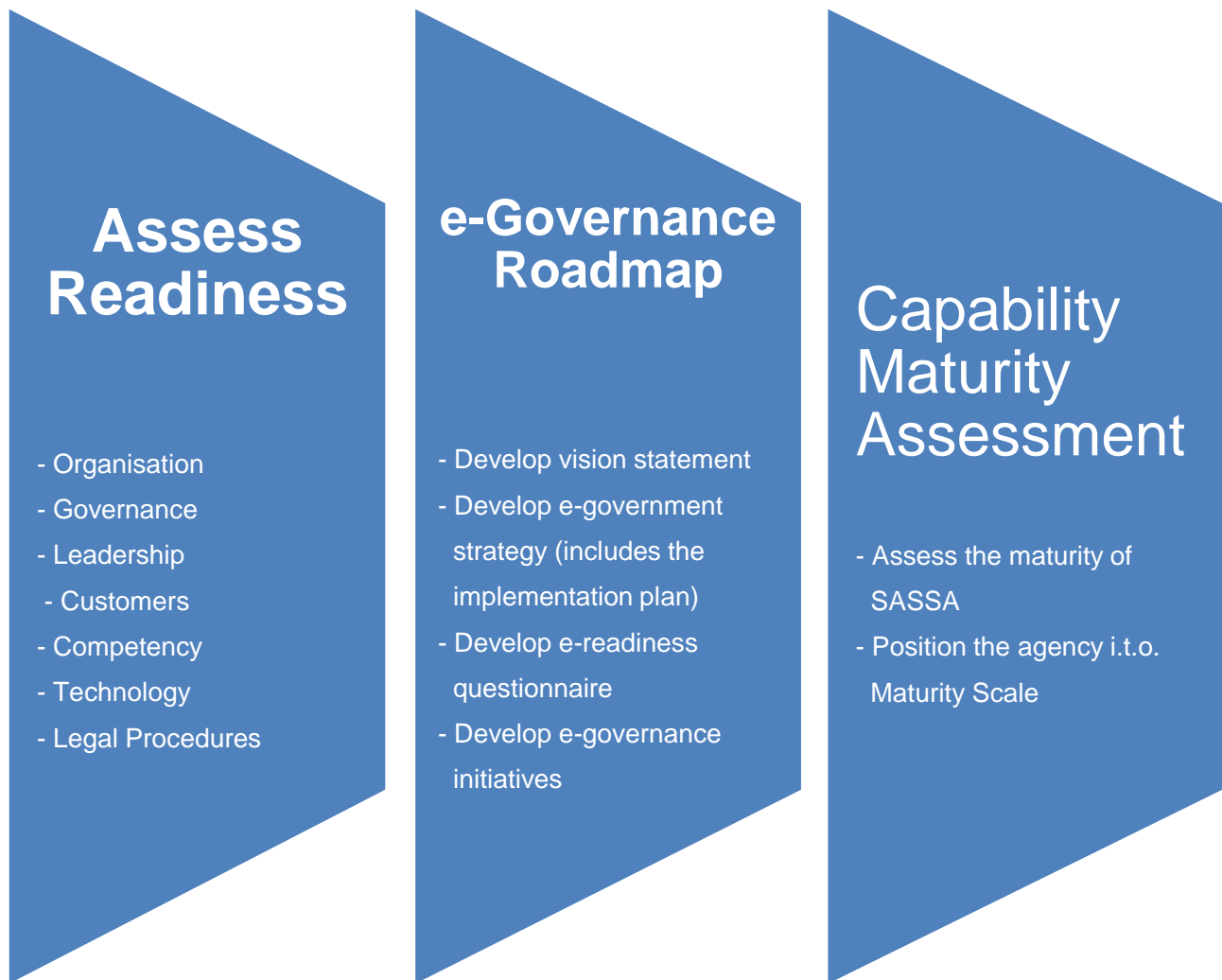
There are a lot of similarities between the building blocks of the e-readiness measuring tool mentioned above and the six indicators from the digital economy rankings of the EIU (EIU, 2010:4). The indicators developed by the EIU consist of connectivity and technology infrastructure, business environment, social and cultural environment, legal environment, government policy and vision and lastly the consumer and business adoption.

The researcher suggests that SASSA make use of the e-readiness rankings of the EIU to be aware of the top countries in the world to determine what these countries have in place and how they have gone about to implement e-government. SASSA can also determine effective strategies used by the top countries and put measures in place to strive to prevent making some of the same mistakes as identified by these countries. The digital economic rankings of the EIU also need to be taken into consideration. The researcher is of the opinion that SASSA should keep itself informed regarding the changes and continuous developments in the digital world.

SASSA can conduct a questionnaire similar to that of the Delhi Government e-Governance Roadmap to assess in particular the ICT department of the Western Cape regional office to ensure that the agency is ready to implement e-services. Thereafter SASSA can utilise the e-Government Capability Maturity Assessment Framework developed by Oyomno (2004:83) to assess the maturity of the agency's capabilities in respect of e-government. The framework is based on six capability factors, six levels of maturity and a mapping function to suggest the logistic path of growth curves. The six capability factors identified by Oyomno (2004:87) include the development and business agenda (DBA); ICT application portfolio; ICT infrastructure development; human and intellectual assets; governance and institutional infrastructure; and lastly leadership and management. The framework put forward a quantitative as well as a qualitative assessment of government institutional capabilities for e-government. This framework will enable SASSA to determine its existing maturity level, capabilities and also challenges that need to be addressed.

SASSA can use the six capability maturity levels of Oyomno in conjunction with the four-stage model identified by Gartner, to determine the maturity levels of the agency in terms of e-readiness. The maturity levels developed by Oyomno comprise of the business-as-usual level; online information services level; online interactivity level; online transactional services level; service integration level; and organisational transformation level. The four-stage model of Gartner consists of the presence, interaction as well as the transaction and transformation stage. The researcher believes that both these models will assist SASSA to position itself in terms of the stage and capability maturity level in respect of an e-government strategy.

Figure 7: Combined Model for SASSA Regional Office Western Cape



3.5 Summary

There are several e-readiness assessment tools which have not been listed, but are attached as Appendix C. The researcher is of the opinion that the indicators measured by EIU, Gartner, e-Government Readiness Assessment Model (Jordan Government) and e-government capability maturity assessment framework developed by Oyomno are important to measure e-readiness. These models and frameworks comprise of all the essential indicators for conducting an e-readiness assessment. The main objective of this study is to determine the level of e-readiness of the SASSA Regional Office Western Cape and its customers as well as to assess the ICT infrastructure of the agency. Therefore a combination of the abovementioned assessment tools is recommended to SASSA. One important factor is that the e-government capability maturity assessment framework presented by Oyomno has not been implemented. The researcher would recommend SASSA to determine if the mentioned framework has been recently implemented and use this as a guideline to determine the maturity level of the agency.

The e-readiness process consist of three phases, which are undertaken sequentially, with the first phase being the e-readiness assessment, the second phase being the development of a strategy and preparation of an action plan, and the third phase the execution of the action plan. The researcher recommends a combination of five e-readiness assessment models that could be applied at SASSA Western Cape, namely the Gartner four-stage model, the EIU model, the e-government readiness assessment model (Jordan government) and the e-government capability maturity assessment framework developed by Oyomno. These models provide an approach as well as important guidelines to consider for the implementation of e-governance. The questionnaire developed by Ernst and Young for the state of New Delhi was utilised to assess the level of e-readiness of SASSA Western Cape. Chapter 4 will conclude the literature review by looking at the SASSA Regional Office Western Cape as the case study.

CHAPTER 4: THE SASSA REGIONAL OFFICE WESTERN CAPE: A CASE STUDY

4.1. Introduction

Social assistance was introduced after 1910 to citizens in South Africa, with the introduction of numerous types of pensions, specifically the social (old-age) pension, with older persons having to complete a means test, as explained by Olivier, Smit, Kalulua and Mhone (2004:199). Black African¹ persons in South Africa only benefited from receiving social assistance grants after 1933. Thereafter, more social assistance benefits were introduced, such as grants for the blind in 1936, grants for disabled persons in 1937, pensions for war veterans in 1941 and family allowances for large low-income families in 1947. These grants were originally intended to provide a safety net for poor white South Africans, however, they progressively developed into an inclusive system expected to provide state support to more than 4 million recipients. This system was adapted in order to make it more accessible to poor and needy persons currently. Olivier et.al (2004:8) mention that the access to education, housing, transport, health, water and sanitation was determined by the race, gender and location of applicants since grants were provided to affluent households.

Haarmann (2000:12) mentions, however, that the first social assistance programme in South Africa was established with the endorsement of the Children's Protection Act of 1913, which provided maintenance grants for children. Only a small number of African parents received maintenance grants, with no rural Africans benefiting from these grants. In 1990, 54% of all maintenance and foster-care grants were provided to persons of Coloured descent. However, these figures changed in 1993, and maintenance grants were provided to 13% of Coloured children, 8% Asian children, 2% White children and 0.5% of Black African children. Alderman (1999) (as cited in

¹The researcher uses the terms "White, Black/ African, Asian/Indian, and Coloured. These terms refer to demographic markers and were chosen for their historical significance.

International Poverty Centre, 2007) draws attention to the fact that Black African applicants were restricted by a lower income cut-off for the means test, with a lack of outreach and advocacy projects to educate them about their rights. Olivier et.al (2004:10) explain that the majority of the population of South Africa consists of Black Africans yet they are the most socio-economically vulnerable group in the country. The authors are of the opinion that an absence or low levels of education tend to be associated with higher degrees of socio-economic vulnerability.

Olivier et.al (2004:2) state that the economy funds the social policies that are presented in the form of social services, social security, social insurance and social assistance. The aim of the new government after 1994 was to ensure that the backlog of social needs be addressed within its available resources. Olivier et.al (2004:10) mention that in a developing country such as South Africa, the social policy should be linked to the economic policy, since these two policy regimes have to be complementary and mutually reinforcing.

4.2 The South African Social Security Agency (SASSA)

The National Department of Social Development was initially responsible for administering social assistance grants. This changed, however, in 2004 with the establishment of the South African Social Security Agency (SASSA) and DSD was no longer responsible for the social relief function, as mentioned by the Department of Social Development (DSD, 2006:63).

SASSA (2009b) points out that the strategic objectives of the agency are to improve the quality of service delivery and accessibility of social grants by beneficiaries who are eligible for a specific grant. The strategic themes of SASSA are to ensure a high-performance institution, improve service delivery, good governance, building human capital and maintain sound financial management.

4.3 Legislative mandate of SASSA

The Constitution of the RSA, 1996 (Act No. 108 of 1996) section 27.1 (c) states that “everyone has the right to have access to: (a) health care services, including reproductive health care; (b) sufficient food and water; and (c) social security, including, if they are unable to support themselves and their dependants.” The legislative mandate of SASSA revolves around the Social Assistance Act, 2004 (Act No. 13 of 2004) and the South African Social Security Agency Act, 2004 (Act No. 9 of 2004). The Social Assistance Act presents a national legislative framework for making available different types of social grants, social relief of distress, and the delivery of social assistance grants by a national agency and the establishment of an inspectorate for social security (SASSA, 2009b).

The South African Social Security Act makes provision for the establishment of the South African Social Security Agency as a schedule 3A public entity in terms of the Public Finance Management Act (PFMA) (Act 1 of 1999). The overall aim of the Act is to create terms for the effective management, administration and payment of social assistance and service through the establishment of SASSA. The President signed this Act on 28 May 2004 and from 1 April 2006 SASSA has been accountable for the execution of the abovementioned duties (SASSA, 2009b).

4.4 Vision, mission and values of SASSA

The vision of SASSA is to provide world-class social security services. Its mission is to manage quality social security services in a cost-effective way and using appropriate best practices timeously by formulating and applying policies, programmes and procedures for an effective and efficient social grants administration system; paying the “right grant amount, to the right person at the right time” (SASSA, 2009a), and at the most accessible place that a person may prefer; rendering innovative, cost-effective and efficient services to individuals, their families and community groups by means of multiple and easy-access channels using modern technology.

The Constitution and the Batho Pele principles form the foundation of SASSA's values, which are to promote and protect human dignity, confidentiality, integrity, fairness, transparency and equitability (SASSA, 2009a).

4.5 The organisational structure of SASSA Regional Office Western Cape

SASSA (2009b) reveals that the agency consists of four sections that are responsible for the management, administration and payment of the social security grants and operate from the head office, regional offices, district offices, local offices and service points. The SASSA head office is based in Pretoria and is responsible for the development of operational policies and for monitoring and evaluating their implementation. There are nine regional offices which are accountable for the implementation of the policies and programmes that are created by head office.

The area of operation of SASSA comprises of 52 districts that are located in 9 regions and are responsible for the following:

- Management of service delivery points that comprise of service offices, local offices, pay points, satellite offices and mobile offices;
- Coordination of the core value chain;
- Conducting quality assurance in respect of grant administration service and data; and
- Networking with municipal structures and role-players.

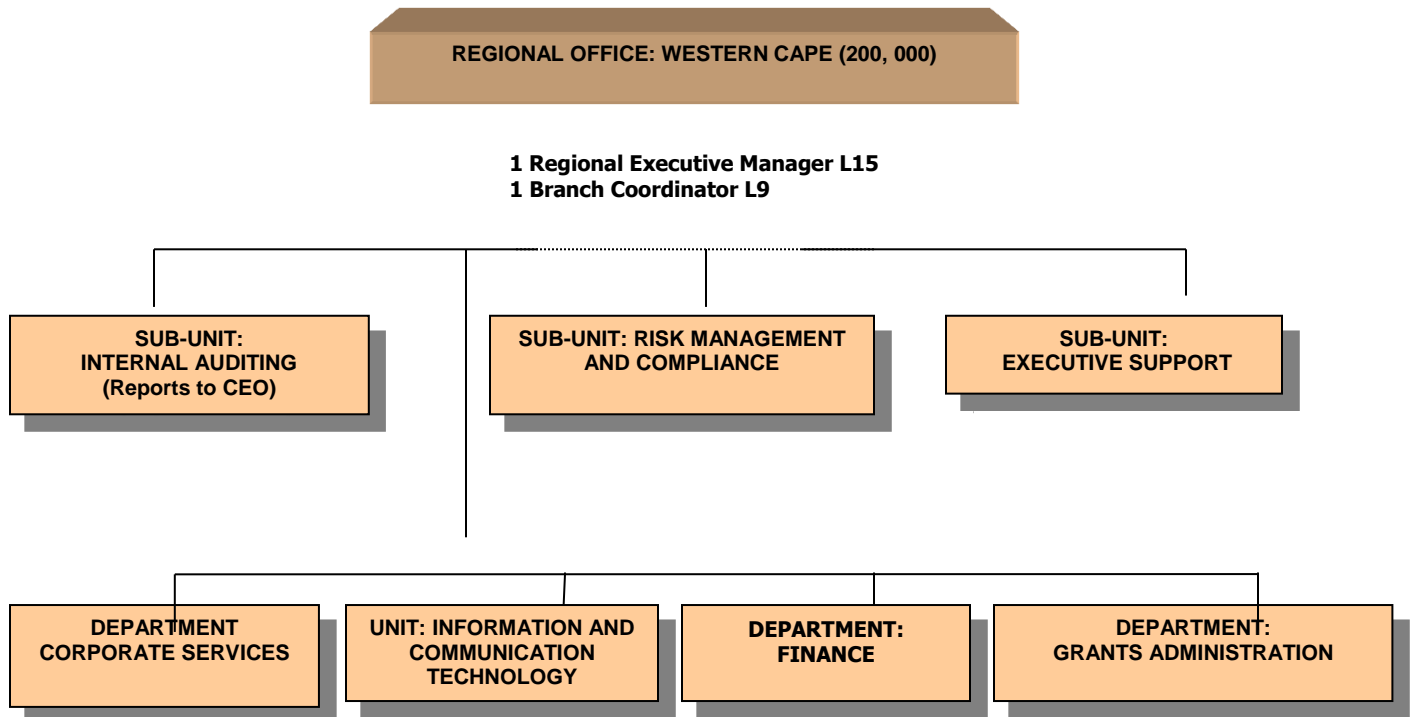
In total, SASSA has 221 local offices, 923 service points and 9,328 pay points. The local offices of SASSA operate as the first point of entry and are responsible for the implementation of the core processes and customer contact services, (which include activities ranging from recording applications to their approval); offering of help desk services; and supervision of satellite and service offices. The pay points are located in the local offices that are used as an area where payment contractors distribute social grants to the beneficiaries in the form of cash. Therefore, the local offices and pay

points report to the district offices, which report to the regional offices. The regional offices report to the head office as they have a direct link to this office. SASSA (2009i) states that it employs approximately 8,000 staff members, who are responsible for the administration, management and payment of social assistance grants to more than 12,8 million beneficiaries.

Although the focus of the study is on the SASSA Regional Office Western Cape, it is worth providing an overview of SASSA district offices. The website of SASSA can be consulted for more in-depth information. The organisational structure of SASSA Western Cape is shown in Figure 8.

The regional office of the Western Cape reports to SASSA head office in Pretoria, as previously mentioned. It is managed by a regional executive manager and a branch coordinator. There are three sub-units: internal auditing, risk management and compliance, and executive support, reporting to the regional executive manager and a branch coordinator. There are four departments that report to the sub-unit: corporate services, information and communication technology, finance, and grants and administration.

Figure 8: Organisation and establishment: SASSA Regional Office Western Cape



Source: SASSA (2009b)

4.6 Services rendered by SASSA

4.6.1 Provision of grants

SASSA provides the following grants to its beneficiaries: grant for older persons, disability grant, war veterans' grant, care dependency grant, foster-child grant, child-support grant, grant-in-aid and social relief of distress (SASSA, 2009d). In the past SASSA provided only the first seven (7) grants and recently added the social relief of distress grant. This grant offers temporary assistance to persons who are in desperate need of resources and unable to provide for the basic needs of their families.

The social relief of distress grant is paid on a monthly basis for a maximum period of 3 months and can be extended for another 3 months in special cases. Transport is paid in extraordinary cases in the event that an applicant was referred for treatment by a medical officer and no other transport arrangements can be arranged; the same applies

in cases where the applicant must travel to a particular destination in order to agree to employment where he or she will not be dependent on further state aid.

The qualifying requirements for the different types of grants will not be discussed; however, there are four requirements that cut across all eight grants: applicants must be a resident in South Africa; within the age requirements as specified by grant type; not be living in a state institution; should not be receiving another grant; and the spouse should comply with a means test (SASSA, 2009h).

Payment methods

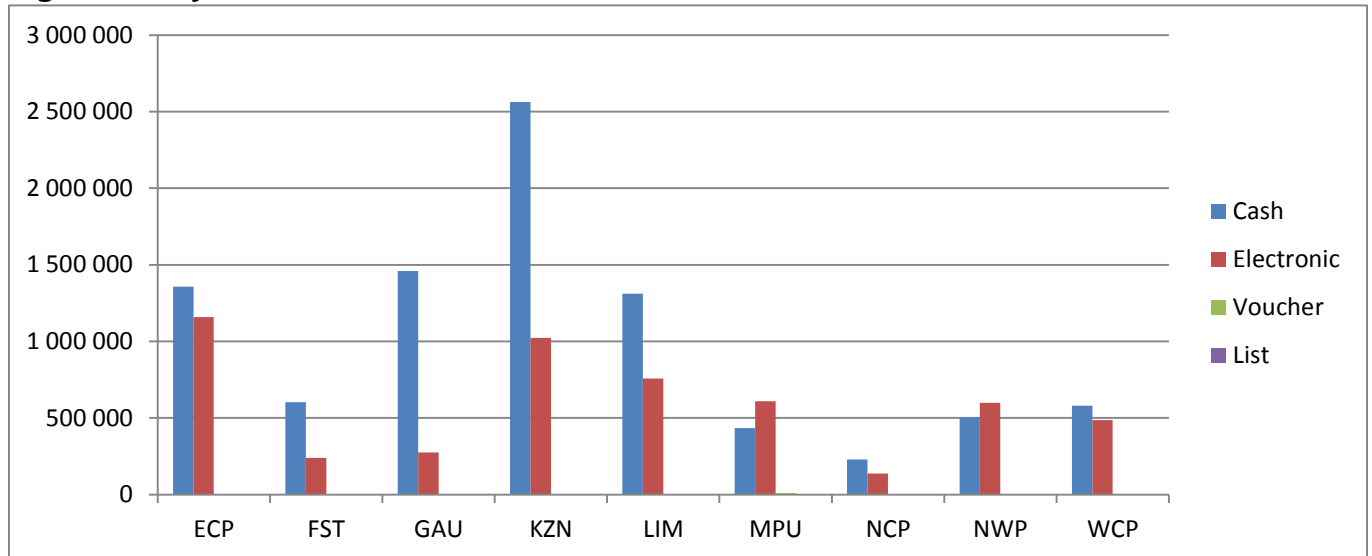
The grants are paid through cash payments, banks and institutions such as the Post Office (SASSA, 2009f). The agency also informs its customers that should they be unable to collect their grant, they may nominate a procurator to collect it on their behalf (SASSA, 2010:14).

Figure 9 provides an illustration of the number of beneficiary transfers by payment methods and regions on 30 June 2010 (SASSA, 2010:14). The graph indicates the number of beneficiary transfers using electronic and cash grant payment method by region. The graph reflects that the majority of beneficiaries making use of the cash payment method are found to be in Gauteng, Free State Region and the Eastern Cape Region. The cash payment method is the most popular in the KwaZulu-Natal Region while the voucher method is the most popular in the Mpumalanga and Limpopo Regions.

SASSA (2010:14) explains that the information as reflected in the graph (Figure 9) suggests a need to promote the use of electronic payments in all regions to minimise long queues experienced by beneficiaries and taking their ill-health into account. The monitoring report further highlights that SASSA should take into consideration theft of beneficiaries' pensions and the fact that the use of an electronic method of payment could minimise such robberies. SASSA (2010:14) suggests that in the Gauteng region

the use of the electronic payment method needs to be promoted since the region is more urbanised with an infrastructure as well as accessible electronic systems in place.

Figure 9: Payment methods



| | ECP | FST | GAU | KZN | LIM | MPU | NCP | NWP | WCP |
|------------|-----------|---------|-----------|-----------|-----------|---------|---------|---------|---------|
| Cash | 1,357,447 | 603,948 | 1,459,258 | 2,561,434 | 1,311,319 | 434,392 | 229,497 | 504,164 | 579,464 |
| Electronic | 1,158,554 | 240,104 | 276,154 | 1,023,450 | 756,854 | 609,909 | 138,116 | 599,971 | 485,445 |
| Voucher | 0 | 0 | 0 | 0 | 3,706 | 9,689 | 3 | 0 | 0 |
| List | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 226 |

Source: SASSA (2010)

4.6.2 Integrated Community Registration Outreach Programme (ICROP)

SASSA (2009j) mentions that a ministerial campaign has been established by SASSA namely the Integrated Community Registration Outreach Programme (ICROP). This programme strives to intensify the battle against poverty and to contribute towards the success of the millennium goal to reduce poverty by half by the year 2014. The ultimate purpose of this programme is to increase the right to use social grants by reaching out to poor communities in the rural areas. ICROP has mobile units and a picture of the ICROP trucks is provided in Figure 10. The mobile units promote accessibility in the rural communities, since these units are fully staffed and equipped with all essential

administration and IT resources to enable online connectivity and processing of social grants, as depicted in Figure 11. The programme promotes an integrated one-stop service by providing government services and making a difference in the lives of the poor and vulnerable by alleviating the social challenges confronting them. ICROP aims to reduce poverty, with a particular emphasis on alleviating child poverty in a developmental manner. All nine (9) regions of SASSA are part of the outreach programme at planning and implementation level. The district managers of SASSA operate as the project coordinators for the implementation of the programme in their own districts.

SASSA has allocated full-time dedicated teams to the mobile units and these teams often consist of six (6) members per each visit to a community. The team consists of a driver, first and second attesting officers, medical doctor, approval officer, IT support technician on-call and a customer care official. The role players involved in ICROP include SASSA, Department of Health, Department of Education, Department of Social Development, Department of Home Affairs, South African Police Service, various municipalities, traditional leaders, non-governmental organisations (NGOs) and church formations.

Figure 10: ICROP SASSA Truck



Source : SASSA (2009j)

Figure 11: ICROP: Inside the truck



Source: SASSA (2009j)

4.7 Monitoring and evaluation at SASSA

4.7.1 Background of the Monitoring and Evaluation Department of SASSA

The Monitoring and Evaluation Department of SASSA compiles monthly statistical reports on the social assistance programme of SASSA based on data sets taken from the SOCPEN system of SASSA. The monthly statistical report is based on information drawn from individual-level records of all grants and recipients. The statistical report consists of major findings in respect of growth rate of grant recipients for the different type of grants as per region and the actual expenditure for each type of grant (SASSA, 2009i).

The statistical methods used for data analysis include observed frequencies, frequency proportions, averages, bar charts, pie charts and histograms. The underlying principle of the statistical report is to explain the distribution of social grants provided by SASSA for a specific month. The intention of the statistical report is to serve as reference material for stakeholders such as the executive management and staff of SASSA, research and academic institutions and also the general public interested in the SASSA social assistance programme.

4.7.2 Statistics for June 2010

Table 9 summarises the total number of persons receiving a grant as per grant type and per province. The table indicates that SASSA distributed a total number of 2,599,787 old age grants, 1,118 war veteran grants, 1,232,502 disability grants, 53,297 grant in aid, 497,982 foster care grants, 109,696 child grants, and 9,848,728 child support grants. In total, 14,343,110 grants were provided by SASSA for the month of June 2010 distributed over all nine provinces of South Africa. The three most paid grants are child-care grants (child-support and foster-care grants), old age grants followed by disability grants. The table indicates that KwaZulu-Natal is the province with the most grant recipients for the old age grants (547,254), disability grants (350,924) and foster-care grants (2,507,102). Table 9 further suggests that the majority of SASSA customers are residing in rural regions which emphasise the need for more intervention to eradicate or minimise poverty.

Table 9: Number of grants by grant type and region

| Region | Old Age Grant OAG | War Veteran Grant WVG | Disability Grant (DG) | Grant in Aid (GIA) | Foster Care Grant (FCG) | Child Grants (CDG) | Child Support Grant (CSG) | TOTAL |
|--------|-------------------|-----------------------|-----------------------|--------------------|-------------------------|--------------------|---------------------------|------------|
| ECP | 477,127 | 144 | 198,268 | 7,217 | 106,375 | 18,689 | 1,708,181 | 2,516,001 |
| FST | 157,401 | 26 | 91,502 | 849 | 44,277 | 4,535 | 545,462 | 844,052 |
| GAU | 336,846 | 294 | 126,821 | 858 | 64,286 | 13,326 | 1,192,984 | 1,735,415 |
| KZN | 547,254 | 165 | 350,924 | 23,728 | 122,163 | 33,549 | 2,507,102 | 3,584,885 |
| LIM | 393,395 | 89 | 99,811 | 6,384 | 56,151 | 12,194 | 1,503,857 | 2,071,881 |
| MPU | 178,864 | 50 | 74,619 | 1,073 | 26,998 | 5,727 | 766,659 | 1,053,990 |
| NCP | 67,718 | 40 | 46,191 | 3,061 | 15,670 | 3,939 | 230,994 | 367,613 |
| NWP | 223,358 | 38 | 94,439 | 2,193 | 34,608 | 8,944 | 740,562 | 1,104,138 |
| WCP | 217,824 | 276 | 149,927 | 7,934 | 27,454 | 8,793 | 652,927 | 1,065,135 |
| TOTAL | 2,599,787 | 1,118 | 1,232,502 | 53,297 | 497,982 | 109,696 | 9,848,728 | 14,343,110 |

Source: SASSA (2010:8)

It is worth noting that in the Limpopo, Gauteng and Mpumalanga regions there are the majority of non-South Africans in receipt of grants. SASSA (2010:4) mentions that there has been an increase in the number of non-South Africans receiving grants in all the regions. There remains a backlog in respect of the approval and capturing of grant applications. SASSA (2010:11) further explains that for the month of June 2010, the data reveal that the one month approval of grant applications was lower than the applications received or captured. This is an indication that all the regions experience a backlog of grant approvals each month and further reveal that SASSA has not met the set turnaround time.

4.8 SASSA website

The SASSA website is uncomplicated and the information provided include where the applicant can apply for grants, payment methods, suspension and restoration of grants, lapsing of grants and review of grants (which will not be explained in this section).

The SASSA portal is more informative in nature. It provides general information pertaining to the mission, vision, legislation and operations of SASSA. It also provides information on the relevant grant types and guidelines on how to apply for such grants. There is also an application form for medical doctors to register on the SASSA website. SASSA does have a link for application forms, but no forms appear on the screen. The SASSA website is purely informational and no transactions can be conducted or approved online.

Figure 12: SASSA services as on their website



Source: SASSA (2009a)

4.9 Summary

SASSA is an independent agency that has been mandated by government to provide various types of social grants to citizens of South Africa. SASSA has a monitoring and evaluation department that compiles monthly statistical reports that provide information in respect of the growth rate of grants, grant type and region, grant expenditure, grant

uptake for financial years and grants. There is a great need for social assistance grants in South Africa as reflected in the monthly statistics of this agency. SASSA provided grants to 14,343,110 South African citizens for the month of June 2010 shows that KwaZulu-Natal is the province with the most grant recipients (3,584,885), older persons grant (547,254) disability grants (350,924), foster-care grants (122,163) with the highest number of the child support grants (2,507,102), which reveal the urgency for poverty eradication in the rural areas.

SASSA has implemented the Integrated Community Registration Outreach Programme (ICROP) to increase the number of grant recipients in the poor rural communities. The ICROP has 40 mobile trucks that are fully equipped to ensure processing of grant applications. There are also full-time teams allocated to ICROP that consist of six members per visit to a community to promote integrated one-stop services.

The agency emphasises the need to promote the use of electronic payments to minimise the long queues. The majority of beneficiaries making use of the cash payment method are found to be in the KwaZulu-Natal Region as reflected in the graph (Figure 6). The June 2010 monitoring report of SASSA indicated a need for electronic services by the Gauteng province as the province has an infrastructure in place. Since SASSA Western Cape Region is the case study, it will be interesting to determine the need for electronic services in this region. The SASSA website is not an interactive website and only provides information about SASSA, the types of grants provided and the requirements to qualify for a grant. The following chapter will discuss how the data were gathered for the purpose of this research study as well as the analysis thereof.

CHAPTER 5: DATA GATHERING AND ANALYSIS

5.1 Introduction

Research is a process that involves generating scientific knowledge by making use of objective methods and procedures in a particular field of study according to Welman, Kruger and Mitchell (2005:2). This chapter focuses on expert interviews, data collection and the analysis of the data collected. The key variables and unit of analysis of a study are of great importance to a research study.

5.2 Key variables

Chapter one notes that e-readiness is the dependent variable that relies on e-government, which can be regarded as the independent variable. The ICT infrastructure of the organisation will provide an indication of the level of e-readiness. The willingness of its beneficiaries to make use of electronic services will also be determined. The SASSA Regional Office Western Cape is the unit of analysis and will be discussed in the following section.

5.3 The unit of analysis: a brief description of context

A unit of analysis refers to the person, object or event to be studied and from which data will be collected and conclusions drawn (Bless, Higson-Smith and Kagee, 2006:72). In the case of this research study, the SASSA Regional Office Western Cape was identified as the unit of analysis.

SASSA head office in Pretoria oversees nine regional offices. There are seventeen district offices that report to the SASSA Regional Office Western Cape. These offices include Vredendal, Vredenburg, Atlantis, Cape Town, Wynberg, Athlone, Gugulethu, Bellville, Eerste River, Mitchell's Plain, Khayelitsha, Paarl, Worcester, Caledon, Beaufort West, Oudtshoorn and George. The ICT of all these offices is overseen by the SASSA Western Cape Regional Office.

The main purpose of the ICT Department of the SASSA Regional Office Western Cape is to manage ICT services in the region. The functions of this department are to ensure that the business systems in the region are implemented, to manage ICT infrastructure services and ICT service management, to ensure effective information management, and to manage ICT procurement in the Western Cape.

The ICT Department of the SASSA Regional Office Western Cape is divided into four sub-units: information management, business solutions, infrastructure and service management. The purpose of the sub-unit information management is to ensure effective information management, to provide business intelligence services, to ensure effective electronic document and records management, and also to manage the regional resource centre. This sub-unit consists of one manager: business information specialist, one information officer and one assistant information officer. The sub-unit business solutions manage the implementation of business systems and functions. The functions of the sub-unit include the implementation of business systems, database administration and providing applications support. This sub-unit comprises one manager: business solutions, one senior applications support specialist, and one systems/database administrator.

The purpose of the sub-unit infrastructure is to manage the ICT infrastructure services. The functions of this sub-unit consist of the management and roll-out of ICT infrastructure, network maintenance and security, proactively protecting the integrity, confidentiality and availability of information systems, and also implementing security structures and standards. This unit comprises of one manager for infrastructure/network engineer, one LAN administrator and one network technician.

The fourth sub-unit is service management, which manages ICT services. The functions of this sub-unit entail the management of ICT procurement in the region, providing supplier management services, managing ICT SLAs, and managing the helpdesk and ensuring customer satisfaction. This unit consist of one manager: service management, one assistant manager: sourcing, one helpdesk operator and one support technician.

The ICT Department of the SASSA Regional Office Western Cape comprises of fourteen staff members; however, it was not feasible to conduct interviews with all staff. The researcher obtained part of the primary data from the interviews conducted with the ICT manager and the customer care manager of the SASSA Regional Office Western Cape. Since the unit of analysis has been discussed, the following paragraph will focus on the sampling design and sampling method.

5.4 Sampling design and sampling methods

The sampling design was a non-experimental research design, as described by Maree (2007:151). The researcher randomly selected four district offices of the SASSA Western Cape Regional Office, namely two rural (Vredenburg and Vredendal) and two urban (Wynberg and Athlone). However, since the district offices were not available to administer the customer questionnaires and also due to the time constraints of the researcher, only three urban district offices were selected for use in the study. These districts were the Cape Town, Wynberg and Athlone (Langa Office) district offices. A brief overview of the manner in which the data were conceptualised will be provided in the following section to indicate the theoretical understanding of the types of data used.

The researcher selected the three grant types with the most beneficiaries which are the Child Support Grant (hereafter CSG), Disability Grant (hereafter DG) and Old Age Grant (hereafter OAG). The size of the population was 10 beneficiaries as per three grant categories which are in total 30 questionnaires per district office. In total 120 questionnaires were distributed between the three district offices taking into consideration the selected three grant categories. The researcher made use of convenience sampling and interviewed the customers as they approach the pay points to collect their grants. The researcher conducted an interview with the ICT Manager and the Customer Manager at the SASSA Regional Office Western Cape with a structured questionnaire as guideline.

5.5 Conceptualisation of data

In this study the data collected were used to evaluate the present level of e-readiness of Western Cape and the willingness of its customers to make use of electronic services.

5.6 Data-collection methods

Empirical data were collected through interviews with experts in this field, as well as the use of structured e-mailed questionnaires and customer questionnaires. A structured interview was conducted with the ICT manager, a structured questionnaire was e-mailed to the customer care manager as she was not available for the scheduled interview, and questionnaires were distributed among the beneficiaries of SASSA. The researcher also consulted published case studies and followed an extensive literature review process. The literature review covered articles, texts, documents and websites from both international and local sources. This data can be divided into secondary and primary data.

5.6.1 Secondary data

Data and information were collected from international, national and provincial sources available from various research databases, including Science Direct, Sabinet and websites of Bridges.org, Gartner Research and EIU. The data relate to aspects such as the population demographics of South Africa, internet penetration in South Africa and the level of literacy among South African citizens.

The data in respect of international and national figures were obtained from the EIU (2009 and 2010) and the Department of Statistics (StatsSA, 2010).

Literature Review

The literature review focuses on e-government and e-governance, related concepts and practical examples locally and internationally. Chapter Three explores the e-readiness measuring tools developed and implemented by EIU, Gartner, Al-Omari, A. & H. Oyomno and Ernst & Young (New Delhi) since their tools appear to be relevant to e-readiness in South Africa. The e-Governance Roadmap (questionnaire) developed by

Ernst and Young was adapted to compile a readiness tool for this research study to conduct an interview with the ICT manager of the SASSA Regional Office Western Cape. Chapter Three further suggests a combined model for SASSA to consider when embarking upon an e-readiness assessment.

The sources consulted include reports, journals, articles, published case studies and theses from the University of Stellenbosch. The literature review provides an understanding of what e-government entails, which directed the process of primary data collection to determine the level of e-readiness of the SASSA Regional Office Western Cape.

5.6.2 Primary data

Questionnaires

The researcher consulted the Computer Systems Policy Project (CSPP) Readiness Guide which is a self-assessment tool for communities which guided the researcher in developing her own questionnaire for both the customer care manager and customers of SASSA. The researcher was interested in determining both the level of education and computer literacy, interest in electronic services among customers of the SASSA Regional Office Western Cape and level of satisfaction in respect of services rendered by the agency. The researcher conducted face-to-face interviews with SASSA beneficiaries and used the questionnaires as a guide. A copy of the questionnaire is attached as Appendix G: Questionnaire for SASSA customers. The limitations of the questionnaire include the following: the questionnaire for the beneficiaries was not piloted to determine the shortcomings before it was distributed. The researcher is of the opinion that there are questions that could have been eliminated from the questionnaires since it appear to be repetitive and some even irrelevant depending on the answers of the respondents. The questionnaire for the customer care manager focused more on how services are monitored and what processes are currently implemented to establish the level of satisfaction among the customers of SASSA. The questionnaire was structured and e-mailed to the customer care manager as she was

not available for the scheduled interview, as previously mentioned. A copy of the questionnaire is attached as Appendix F.

Interviews

Burger (2008:16) provides an explanation of a 7-step interview process, which was used to conduct the structured interview with the ICT manager at the SASSA Regional Office Western Cape.

The researcher was guided by literature from Ernst and Young as well as the e-readiness questionnaire developed by Ruikar, Anumba and Carrillo (2005:105). The researcher decided upon the e-Governance Roadmap (questionnaire) developed by Ernst and Young for the Delhi government and adapted this into a questionnaire for the interview with the ICT manager. The researcher first explained the purpose of the interview, and then conducted and recorded the actual interview on a digital recorder; this was followed by transcribing the interview as step four. In step five the researcher analysed the information and in step six, the information was verified by an ICT Manager at the SASSA Regional Office Western Cape. The reporting of the findings is captured in Chapter Six of this research study, which presents research results and is also regarded as the seventh step of the interview process.

The structured questionnaire was not piloted before the interview was conducted. The questionnaire is attached as Appendix E: e-Readiness questionnaire with ICT manager of the SASSA Western Cape Regional Office. The ICT manager is knowledgeable, passionate about his work and willing to answer all questions. The interview with the customer care manager was conducted telephonically. The researcher developed relevant questions in respect of customer care and electronic services. The questionnaire was e-mailed to the customer care manager in preparation for the interview and points of clarification were discussed telephonically. The customer care manager was skilful, experienced and willing to answer the questions.

5.7 Data analysis and verification

A combination of qualitative and quantitative methods of evaluation was utilised as suggested by Mouton (2005:159).

Questionnaires

The data collected from the customer questionnaires were captured in an Excel spreadsheet and graphs were created. The spreadsheets were put in graph form and an explanation of their significance is provided in Chapter Six of this study. The data collected from the customer care manager are also captured in Chapter Six. The head of the Customer Care Department was approached to verify the data collected.

Interviews

The researcher conducted an interview with the ICT manager and made use of a dictaphone to record the interview. Thereafter the researcher transcribed the interview verbatim and this is documented in Chapter Six (see 6.2.1 of this study). The ICT manager of the SASSA Regional Office Western Cape agreed to verify this information.

5.8 Summary

Chapter five describes how data were collected and analysed for the purpose of this study. The dependent variable in this study refers to e-readiness and the independent variable to e-government. The unit of analysis for this study is the SASSA Regional Office Western Cape. The ICT Department of the agency comprises of four sub-units and an overview is provided. The researcher conducted interviews with the ICT manager and customer care manager (telephonic) and disseminated a structured questionnaire among the selected customers of the SASSA Regional Office Western Cape. Information was gathered through questionnaires, interviews and published case studies for the purpose of this research study.

The e-readiness measuring tools discussed in Chapter three of this study provide the basis for this research study. The Delhi Roadmap questionnaire was used to determine SASSA's e-readiness and adoption of e-government by collecting both primary and

secondary data. The researcher omitted some of the questions in the Delhi Roadmap Survey; however, the main elements of the tool remained the same to ensure that the required results be obtained. Chapter Six provides the results of this research study.

CHAPTER 6: RESEARCH FINDINGS

6.1 Introduction

Farelo and Morris (2006:6) are of the opinion that the South African government is confronted with major challenges in human resource development, providing access to citizens and ensuring the effectiveness of internal government processes. They explain that although South Africa has taken steps to provide online access to services, it needs to develop the intensity of such services. This needs to be seen in the context of low tele-densities in especially the rural areas and also the high telecommunication costs.

Naidoo (2004) and Singh (2007) (as cited in Naidoo, 2007:329) explain that there are also other challenges which the South African government faces, such as to identify the potential legal obstacles in the development of the electronic model. Another obstacle is to provide education and training on the practice of the electronic model and to address the lack of awareness among government organisations, consumers, companies and small micro-and medium enterprises (SMMEs). The management of negative socio-economic circumstances such as job losses and other associated risks can also be regarded as another challenge.

Despite the fact that South Africa is faced with several challenges in respect of e-government, the internet usage in South Africa is on the increase with more than 5-million internet users (MyBroadband, 2010). The mobile internet in South Africa 2010 report further discloses that there has been a remarkable increase in the use of mobile internet services in South Africa with approximately 3,36-million people accessing the internet by use of their mobile phones (see 1.1.2 of this study). The researcher is of the opinion that this statistics present great opportunities for SASSA in terms of e-government as well as m-government.

Chapter 2 of this study provides a detailed overview of the challenges and recommendations made in respect of the successes of e-government. The focus of this research study was to assess the e-readiness of the SASSA Regional Office Western

Cape and its customers. The following section will elaborate on the results of the research study. The researcher combined the literature with each question answered.

6.2 Research results

The researcher made use of the “e-Governance Roadmap” developed by Ernst and Young as guideline for the interview conducted with the ICT manager of the SASSA Regional Office Western Cape. The questions posed to the ICT Manager are listed below with response of the ICT Manager in italics.

6.2.1 Interview results: ICT Manager

Question 1: How would you categorise SASSA Regional Office Western Cape’s ICT infrastructure capabilities?

“SASSA comprises of a head office which is the South African Social Security Agency Pretoria. The agency encompasses of nine provinces of which each consists of a regional office comprising of district offices, local offices, satellite offices and service points. The satellite offices provide access to services for beneficiaries who are unable to access a local office. The service points render services to clients who are unable to go to the local offices as illustrated in the organisational structure of the agency.

SASSA has a fully networked ICT department with applications on a central server in a departmental data centre. The Logistical System (LOGIS) and the Enterprise Resource Project (ERP) operate from SASSA head office in Pretoria. SASSA has a virtual private network (VPN) as well as a Voice Over Internet Protocol (VOIP) that are hosted by Mobile Telephone Network (MTN). This was previously hosted by the State Information Technology Agency (SITA), since SASSA was a component of the Department of Social Development (DSD). The goal of SASSA was to operate independently from DSD therefore MTN ran the contract of establishing a VPN for SASSA as from 27 April 2008. The Social Pension System (SOCPEN) is the main application of SASSA which is utilised for pensions to capture the intake of grants for the old age pensions, child support, disability and foster care grants. The SOCPEN system is also used to check when the pensioner is querying his/her grant that has not been paid or have lapsed due

to some reasons. SASSA hires a special trainer from SITA to provide training to the SASSA employees who are using the SOCPEN system.

SASSA is using Personnel Administrative System (PERSAL) as from April 2006 until 31 March 2009 which is utilised for human resource management and the Basic Accounting System (BAS) that is used by the finance department. SITA previously hosted all the mentioned applications when there was one VPN. As from April 2009 SASSA changed from PERSAL to Oracle which is an application used by Human Capital Management (HCM), the finance department for financial accounting and management accounting as well as supply chain, for capturing of payments. Although SASSA is operating independently from DSD, the agency has a link to SOCPEN. All the regional offices of SASSA host their own GroupWise (internet and e-mail facility) and no longer share GroupWise with DSD. SASSA partially shares the PERSAL system with DSD and has created its own, called Enterprise Resource Project (ERP) which has been fully rolled out. ERP is responsible for the management of the Oracle and BAS systems; however, the implementation thereof is not complete. Initially, there were several challenges experienced with the programme and as a result, staff members did not receive their salaries in August 2009. The leave dates have also been affected by the incomplete implementation of the Oracle system and created great confusion, but this matter has been resolved.

The regional offices have a host of services, such as Semantic Antivirus which has been moderated since the mainframe is based at the head office that receives the main updates. SASSA has a Grant Application Process (GAP) server which stores information in respect of work completed regarding the application process at service points, local offices and district offices. This information is captured on SOCPEN then downloaded to SASSA Head Office on the main server so that the information is made available or easily accessible to other provinces. The GAP server is the updated server and the regional offices are presently installing small updates of the GAP server at local offices to update the definitions (viruses) that regularly appear. The main server is housed at SASSA head office and an administration server is housed at the local offices

for all administration conducted and this is displayed on the mainframe called SOCPEN. The antivirus updates and sends information to the regional office, which sends this information to the head office to reduce the bandwidth. SASSA has a web router which operates as an anti-spy programme which has the same setup as the Semantic Antivirus and also runs on the GAP server. All the regional offices have PVCs that are connected to the head office, while the local offices are connected to the regional office. All the local offices are fully equipped in respect of ICT.

Four staff members from the local office make use of their notebooks and a 3G router at the pay points. At present the staff members make use of a company called BENEN, which is an offline system of SOCPEN that consists of data from the previous month. The company installs the data on a CD which enables the staff members to check the services rendered during the previous month. At present the staff members cannot add new information and are only able to use the data from the previous month. The staff members compile a list of queries and provide feedback every Friday to the local office, after which a date would be dedicated to attend to these queries. The ICT Department is of the opinion that this process is costly as it requires both human resources and time to process this “historic information”. The ICT Department recommended that the staff make use of a 3G router when working at a satellite office as four notebooks can be simultaneously connected to this router.

The ICT Department is currently in the process of configuring a router. The 3G router will provide connectivity to MTN and will be connected to the VPN. The SITA Access Point Name (APN) identifies the internet protocol (IP) and packet data network (PDN) that a mobile user wants to communicate with and therefore provides access to SOCPEN. The 3G router operates from a specific cell phone number and Sim card, which will enable MTN to create a tunnel to the APN. On the APN only this Sim number is registered, which implies that only this Sim number can connect to the 3G router. The 3G router will make it possible for staff members to assist customers at the satellite offices by providing the same functionality as that of the local office, which will speed up grant application processes. The staff members will be able to trace progress in respect

of grant applications and even provide a printout which will assist them to provide feedback to customers during the following week. The 3G router presents several benefits such as streamlining, going online and printing thus making staff more accessible to customers. The ICT Department of the SASSA Regional Office Western Cape certainly needs a budget for the implementation of the above ICT applications. Therefore, the ICT infrastructure of SASSA can be categorised as a fully networked department with applications on the central server in the departmental data centre.”

The following question will respond to the budget of the ICT department of the SASSA Regional Office Western Cape.

Question 2: What is the allocated ICT budget for the SASSA Regional Office Western Cape for the current year?

“The regional office has its own budget for cartridges to the amount of R820,000 towards the supply of toners to the local and regional offices. The head office of SASSA manages the budget for upgrades and replacements such as when computers or notebooks are faulty or unable to be repaired. The head office is also responsible for the budget of IMACDs (install, move, add, change and deploy) that consist of Information Technology Infrastructure Library (ITIL) principles that provide the standard for service management. ITIL comprises of service management and help desk. The regional offices are allowed to spend up to an amount of R5,000 to log a call and TSS will quote the ICT Department of SASSA if there is a new staff member in need of a computer. The IMACDs consume a large part of the ICT budget of the regional office.

The head office of SASSA is responsible for the payment of ICT from any amount exceeding R5,000. The budget of the ICT Department at the regional offices is not sufficient to cover this. An example is the new anti-virus protection programme called Semantic End Point (SEP) 11, previously called the Semantic End Point (SEP) 10. The SEP 10 was a type of antivirus identification previously used and was upgraded to SEP 11 which is a Symantec Antivirus that helps consumers and organisations secure and manage their information. The software provides protection against risks at more points,

more completely and efficiently and cultivates confidence wherever information is used or stored. The SEP 11 is currently used at local, district and regional offices to protect the computers and notebooks from any dangerous software virus. Each computer on the network must be able to use SEP 11, which requires human resources and the implementation of this software. SASSA makes use of a support company named Technical Service System (TSS), which is responsible for the management of this process. TSS get hold of contracts and SASSA provides the terms of reference. The ICT Department will negotiate with TSS on additional needs which are paid from the budget of the head office.

There are also matters to consider such as licensing and the Voice Call Exchange (VCX). SASSA makes use of Novell (authentication) and GroupWise. The ICT Department requested that each province have their own intranet in all 9 regions. This would be ideal to provide information on birthday celebration in a region, accomplishments and region-specific information such as new incumbents or staff members who are leaving the agency. Updates on the publication of information for example when there is a change in service within the region or an announcement, this can be published on the intranet. The Provincial Government of the Western Cape is in the process of implementing a VCX. The agency only has one cable, called an RG that is connected to a computer and another cable to the private Automatic Branch Exchange (PABX) which is connected to, for example, Telkom. The PABX allows the user to see and control the calls directly and manually, using lighted line buttons while a private branch exchange operate similar to a public telephone system when dialling directly.

SASSA has installed a VCX at another server and uses the same cable called RJ45 and RJ11 that are able to run data and voice calls. RJ means the Registered Jack which is a physical connector interface. The RJ11 cable is the standard connector utilised on two pairs (4 wires) of telephone wiring. The RJ45 is a type of Registered Jack and specifies the physical male and female connectors and are also used for connecting a category 5 cable. The specific category in use can be identified by the

printing on the side of the cable. So it uses the same infrastructure to run data and telephone calls. The Voice Over Internet Protocol (VOIP) is a system used for SKYPE to conduct video conferencing that is hosted on the 20th floor in the building of the SASSA Regional Office Western Cape. The SASSA head office is responsible for the payment of the services within the regions. The VOIP system was configured by the outsourced service provider and the implementation thereof was done by SASSA together with the service providers. Only a few of the local offices have a VCX. The regional office can contact the local offices without any costs involved, since this is a direct call from the internet. When the regional office wants to contact the Eastern Cape Province, they have to pay for this call since this is only applicable within a region when the offices have a VCX”.

The ICT Department of SASSA Regional Office Western Cape plays an important role in the implementation of the above and a brief overview of this department is provided in the following paragraph.

Question 3: Is there an ICT department at SASSA Regional Office Western Cape?

“The ICT Department of SASSA Regional Office Western Cape comprises of staff members from SASSA and TSS, the support company. The support services of SASSA are defined as front-office services, which refer to mail and printing. The back-office is managed by SASSA, comprising of the Local Area Network (LAN) support and IMACDs, which include incidents from e-mails that cannot be accessed due to incorrect passwords”.

The following paragraph gives further details about the number of staff members employed in the ICT Department of the regional office.

Question 4: How many ICT trained staff (in numbers) are there at the SASSA Regional Office Western Cape?

“The SASSA Regional Office Western Cape consists of 10 staff members and a Senior Manager who oversees the daily operations of the unit. The Senior Support Specialist

specialises in systems such as Microsoft Word, Microsoft Excel and other programmes that need to be implemented in a region. The Business Intelligence manages the business information unit and the System Administrator manages the systems for example the Galatrix telephone system that is managed by Unison and Visual Component Exchange (VCX) that is mainly used for the creation of telephone accounts and reset the telephone passwords as well as pin codes for security purposes of the telephone system. The Service Desk is managed by the Network Engineer who is acting for Service Desk. The Network Manager is responsible for the ICT infrastructure and the network for the region. The ICT General Manager for the Regions and Operations manages the funds for the ICT infrastructure. The Network Technician is responsible for the network that concerns mainly backups of all SASSA information that has been accumulated for the day. The Network Administrator works mostly with the Local Area Network Administration for new users and disables accounts of users who are leaving the agency. The Network Administrator is also responsible updating the health check for morning reporting should there be any system that is not functional for example access to GroupWise. The Helpdesk Operator and Desktop Technician manage the daily operations at the helpdesk. The Service Desk has been outsourced to a company called Tactical Software System (TSS) which is based in Johannesburg.”

Question 5: Is the management of the ICT infrastructure of SASSA Regional Office Western Cape outsourced to a third party?

“The helpdesk and support services of the SASSA Regional Office Western Cape have been outsourced to TSS. The helpdesk is responsible for the calls that have been logged by the users. The calls for this company are logged by UCS who then route these calls to the Service Desk for the follow-up by the Information and Communication Technology (ICT) Department of SASSA. The calls that are not meant for the SASSA back-office are assigned to the TSS Front Office. TSS is using a system called Information Management System (IMS) for their call management. In the event that a user logs a call, TSS will respond and assign the call to a relevant group or Field Service Engineer. Thereafter TSS will capture the call on the Information Management System (IMS) which will make it possible for the ICT Department of SASSA to access

this information. The helpdesk operator assigns the logged call to the responsible staff members to address and the front-office calls are easily identified. The calls that have been successfully resolved are transferred to the database where all calls are recorded. The calls are updated on IMS, which is continuously monitored by the helpdesk operator to ensure that users are provided with the correct information and that they are updated in respect of queries.

There is a Service Level Agreement (SLA) between SASSA and TSS, since SASSA head office as well as the regional offices has TSS on site at all times. The call response time for any regional office query is one hour and for the local office queries, it is two hours. The offices which are situated 100 to 200 kilometres away from the local office, the call response time is four hours and offices situated approximately 300 to 400 kilometres away, the call response is 8hours”.

Now that TSS, the outsourced company has been discussed, the types of database systems utilised by SASSA Regional Office Western Cape will be discussed in the following section.

Question 6: Does the SASSA Regional Office Western Cape maintain a database of customers in any form?

“SASSA makes use of a system called SOCPEN wherein the personal information of all beneficiaries is captured as per grant type. Each SASSA regional office has a database of its own supplier, since equipment is purchased within the respective region called the BAUD system. This system is used by the SASSA Supply Chain for stock taking purposes and also to keep record of their suppliers. The officials scan the barcodes when stocktaking and a handheld scanner is used to load this information to the computer which is downloaded to SASSA Head Office. The SASSA Regional Office Western Cape has a database of its customers and suppliers as well as a management information system (MIS)”. The MIS will be discussed in the following section.

Question 7: Does the SASSA Regional Office Western Cape have its own automated Management Information System (MIS)?

“SASSA has a record-management centre (RMC), where all its documents for the province are captured and each region has its own RMC warehouse. Initially each district and local office had its own registry and there were 19 registries in the Western Cape. Then an MIS Warehouse was established and all the registry files were collected and taken to the warehouse. The warehouse makes use of a system called Hotkey; however, this system has not been completely installed. Although this system is still in phase one, the offices are able to trace the location of a file since each file has been allocated with a specific number by using the beneficiary identification number (ID). The second phase of RMC will focus on making all the files available electronically. Each file will have to be scanned and captured on the electronic database of which has not been fully implemented by SASSA. SASSA has its own website as well as an intranet for regional offices to ensure that local and satellite offices have access to internal information about the agency”.

Question 8: How often are the websites of the SASSA Regional Office Western Cape being updated?

“SASSA head office updates the website of the agency and the regional offices update their intranet daily and weekly. The Galatrix website utilised for the telephone system is updated every two hours, weekly as well as monthly”.

Since the focus of this study is on e-readiness of SASSA and its customers, the following section discusses e-government at the Regional Office in the Western Cape.

Question 9: List the current e-government initiatives of the SASSA Western Cape Regional Office and the function they perform?

“The ICT Senior Manager is of the opinion that SASSA makes use of the best technology especially with regard to the implementation of the ERP system. An example would be if a person applies for leave, the manager will insert his electronic signature and submits the application to HR with no paper being involved. Paperless

administration will be conducive to information management and SASSA has the necessary infrastructure in place. The CEO at SASSA head office approves initiatives such as e-government initiatives. SASSA is presently focusing on internal systems such as SOCPEN, ERP and RMC. There are no e-government initiatives implemented at SASSA Regional Office Western Cape at present. E-governance remains a 'nice-to-have and despite the fact that the agency has not implemented e-government initiatives, it has made provision for the security of information".

Question 10: Is there any ICT security or disaster recovery/business continuity policy of SASSA Western Cape Regional Office?

"SASSA Western Cape Regional Office has an ICT security and a disaster recovery policy."

Question 11: What are existing roadblocks in implementing IT/e-governance initiatives?

"SASSA needs to operationalise the existing systems such as SOCPEN, ERP and the RMC warehouse before embarking upon e-government initiatives".

Question 12: Has any training been provided to the staff in the ICT Department of SASSA Regional Office Western Cape?

"In 2008 the University of Stellenbosch provided training at the SASSA office, some staff completed project management training, while some have attended training at Dynamics. In 2009 no training course was attended by the staff in the ICT Department of the SASSA Regional Office Western Cape. In March 2010 SASSA staff members have attended an Information Technology Infrastructure Library course with New Horizons to be able to meet demands of a business environment."

In summary, the SASSA Regional Office Western Cape has a fully networked and functional ICT Department and the local offices are also fully equipped in respect of ICT. The agency has a well developed ICT Infrastructure in place and makes use of various "computer-based" systems for information management. The agency makes use of

PERSAL/ Oracle to capture information regarding personnel, Groupwise to access e-mails, BAS to capture finances, SOCPEN to capture the intake of grants. The ICT Department of the SASSA Regional Office Western Cape comprise of 10 staff members and a Senior Manager. The helpdesk and support services of the regional office are outsourced to a company called Technical Service System (TSS).

The SASSA Regional Office Western Cape has a database for its customers as well as its suppliers. The SOCPEN system is utilised to manage information pertaining to customers as per grant type. The BAUD system is used to keep record of all suppliers where equipment has been purchased within the region. Each regional office of SASSA has a Record Management Centre (RMC) where all customer files are kept. The RMC is, however, still in its first phase and the agency strives to implement the second phase, where customer files will be electronically available. The website of the agency is updated by the head office in Pretoria and the regional offices are responsible for the updating of information on the intranet. The regional offices of SASSA can only spend up to R5,000 in respect of ICT and can conclude that SASSA head office manages the overall budget for ICT equipment from the amount of R5,000. The SASSA Regional Office Western Cape has not embarked upon e-government initiatives since it would like to first operationalise its existing systems such as SOCPEN, ERP and the RMC warehouse.

6.2.2 Questionnaire for the customer care manager

Question 1: How does SASSA conduct customer satisfaction surveys among its customers?

“SASSA has an internal monitoring, evaluation and review (MER) process that is facilitated by the staff members at the grants administration unit, although they are not specifically trained in MER process management and procedures. SASSA makes use of a prescribed customer survey questionnaire to determine the level of satisfaction among its customers. SASSA is also in favour of being monitored by external stakeholders such as Black Sash, which is a Non-Governmental Organisation (NGO) and rights

advocacy group. The Black Sash is currently conducting an assessment of SASSA to determine whether SASSA is rendering a quality services to its customers.

SASSA has launched its customer charter, which incorporates minimum service delivery standards, and the customers are encouraged to comment on the quality of services through the use of the suggestion box that is available at all access points at SASSA contact points. The monitoring of customer satisfaction is a prioritised element of the customer care management framework currently being implemented in the region”.

Question 2.1: How does SASSA address complaints?

“SASSA is obligated in terms of the Batho Pele principle of redress to respond speedily within 48 hours of receipt of a complaint. SASSA embraces the Batho Pele transformation framework to inculcate a customer-centric service. The 48-hour turnaround time is to acknowledge receipt and provide a response to customers, if possible. Should a further investigation be warranted through referral to any of the local offices, the maximum turnaround time is 21 working days to finalise the matter.

SASSA also conducts citizen and stakeholder dialogues to create awareness of the complaints procedure and encourages either receipt of complaints and/or compliments. The information is used to inform management to indicate early warning signs for appropriate corrective intervention”.

Question 2.2: What are the customers mostly complaining about?

“The customers are mostly complaining about business process management, which consists of delays in payment of grants, clarification about the grant review processes and issues pertaining to policy shifts. Previously, only women could obtain old age pension/grants from the age of 60 and men from the age of 64 years. In 2010, SASSA equalised the ages of both sexes, therefore allowing men also to access grants from the age of 60 years. Another source of complaint is an alternative document in the absence of not having an ID document in order to access grants as this document is the primary

source to register on the SOCPEN (Social Grants Database). The review of means test refers to the “ceiling” to access grants reduced to allow more citizens access – even employed persons who are eligible in terms of other qualifying criteria to access, for example if earnings are below R2,500 per month. Previously the cut-off age for child-support grants (CSG) was 14 years and has been extended to the age of 15 years, for these children to access CSG. Emphasis of grant payment option as stipulated in the Social Assistance Act to encourage access to grant payments through banks and not cash payments. The latter is very costly and SASSA was established to gradually promote efficiency gains.

Other complaints, which appear to a lesser extent, include poor treatment by staff despite the strong emphasis placed on quality customer care by the CCU (customer care unit) and especially reinforced by the executive leadership agency in the region. Occasionally customers complain about telephones not being answered promptly; this problem is essentially found at SASSA offices shared with DSD”.

Question 3: After the split with DSD, what is your view regarding service delivery?

“There has been an improved focus on developing a comprehensive social security system after SASSA started operating independently from DSD. There also seems to be a greater appreciation for the staff teams who administer the grants as well as greater interest in building the competency level of staff. There has also been an increased level of professionalism among staff teams”.

Question 4: Does SASSA have a system in place to monitor the turnaround time from processing applications until the approval of them?

“SASSA registers the information of all beneficiaries on the SOCPEN database. SASSA local offices account to the regional office and also submit a monthly statistical report, intake registers and production sheets. The production sheets consist of information in respect of the maximum time a staff member should allocate to welcome, screen, assess, conduct the application, capture and verify the decision of SASSA with regard

to the application. This information will be captured on the system, which will confirm whether a grant application can be approved or rejected.

A specific programme has been implemented in 12 of the 16 local offices called the improved grants administration programme (IGAP). This programme guarantees that SASSA will make a decision on the same day an application has been made at the local office and a 10-day turnaround time if an application has been made at a service point, where there is no access to ICT to capture the information on the system. The application will only be processed when the staff members have returned to the local office of SASSA”.

Question 5: Through which medium does SASSA get responses from customers (e.g. suggestion box, telephonic contact)?

“SASSA receives the majority of enquiries through written or telephonic communication”.

Question 6: Do the SASSA officials inform customers that they can access information pertaining to the grant application on the website of SASSA?

“The staff members of SASSA regularly inform the customers about the website of the agency and the type of information that is available online. SASSA conducts citizen dialogue sessions and daily information sessions in the waiting rooms, which have been enhanced. The customer care manager explained that despite community internet cafes, SASSA customers often do not access the internet. SASSA has a management information system to generate and store information, and it has developed strategies such as automated services for the coming years.

In respect of service delivery, SASSA has an internal monitoring, evaluation and review (MER) process. The agency also makes use of a prescribed customer survey questionnaire to determine the level of satisfaction among its customers. The customer charter and suggestion box of SASSA are the means through which customers can comment on the quality of services. SASSA should respond within 48 hours when a

complaint has been lodged and in the event of a further investigation, the maximum turnaround time is 21 working days to finalise the matter.

The agency is also aware about the average matters that the customers are complaining about and has implemented the improved grants administration programme (IGAP). This programme ensures that SASSA make a decision on the same day that an application is made at the local office and a 10-day turnaround time at a service point. The agency also encourages the customers to obtain information about the grants process on the website of SASSA, however, despite community internet cafés; the customers often do not access the internet. SASSA has a management information system (MIS) to generate and store information, and it has developed strategies such as automated services for the coming years”.

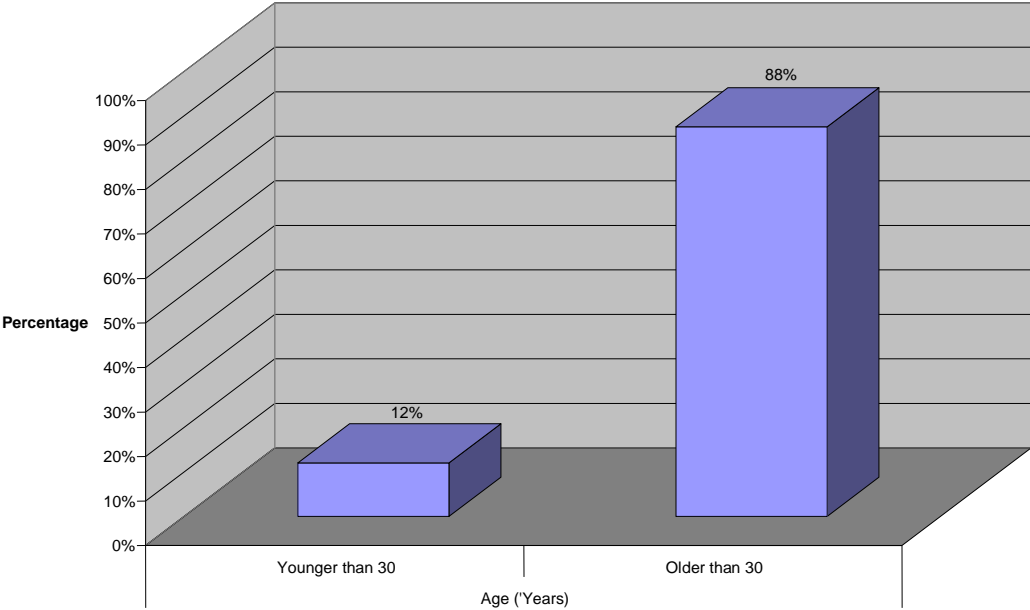
6.2.3 Questionnaire results of SASSA Customers

6.2.3.1 Child-support grant

The researcher interviewed 8 customers who were in receipt of child-support grants. One of the 8 participants was younger than 30 years, and the remaining seven customers were older than 30 years, as depicted in Figure 13.

Figure 13: CSG age distribution

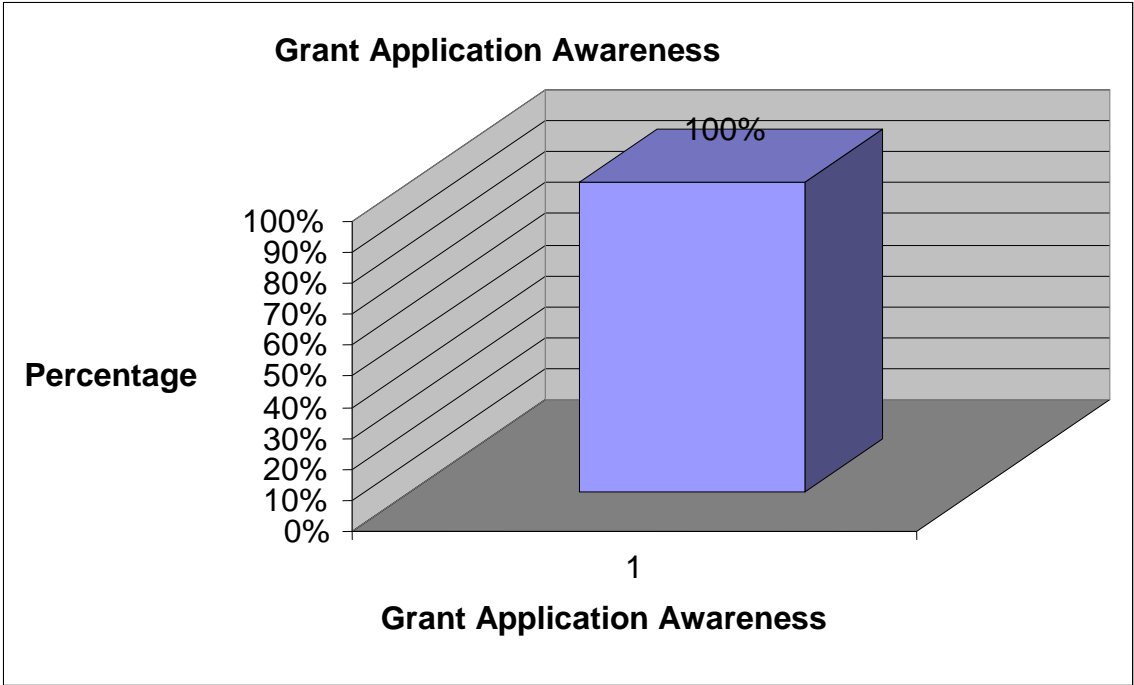
Child Support Grant: Age Distribution



Grant application awareness

Figure 14 shows that 100% of the participants were aware of the procedures to follow when applying for the mentioned grant. The researcher is of the opinion that the mentioned statistics can be an indication that SASSA invests in awareness programmes to sensitize its customers around the grant application process and the requirements thereof.

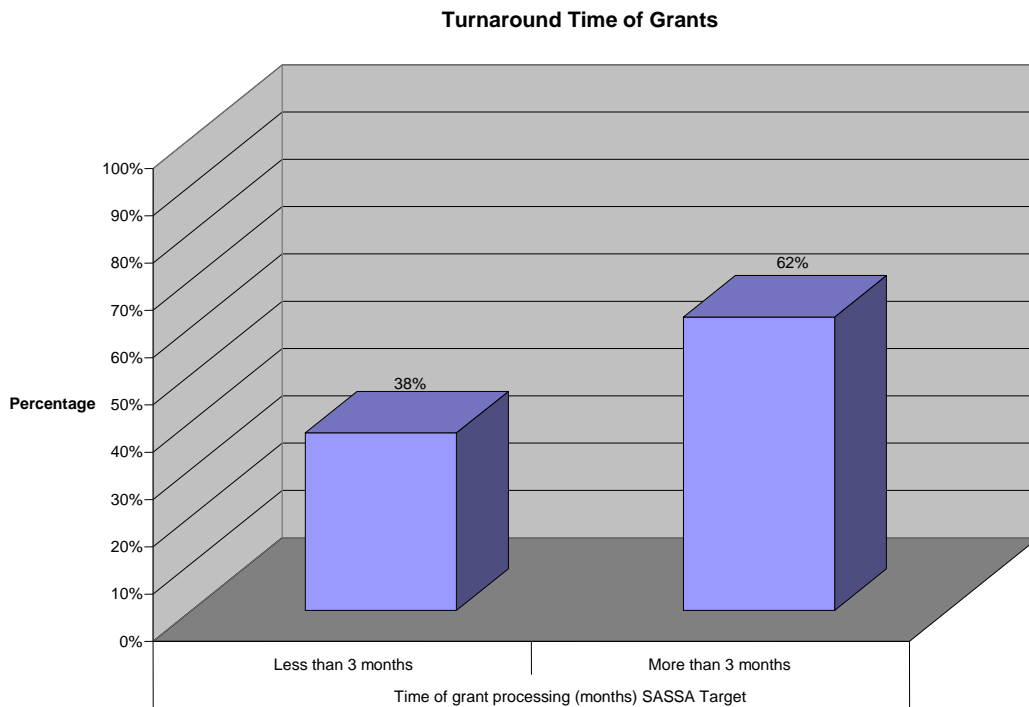
Figure 14: CSG grant application awareness



Turnaround time of grants

The turnaround time in which the grants of the CSG customers were processed, was approximately one month as displayed in Figure 15. This timeframe appears to be close to the ideal turnaround time of 21 days of SASSA, which was indicated by the customer care manager.

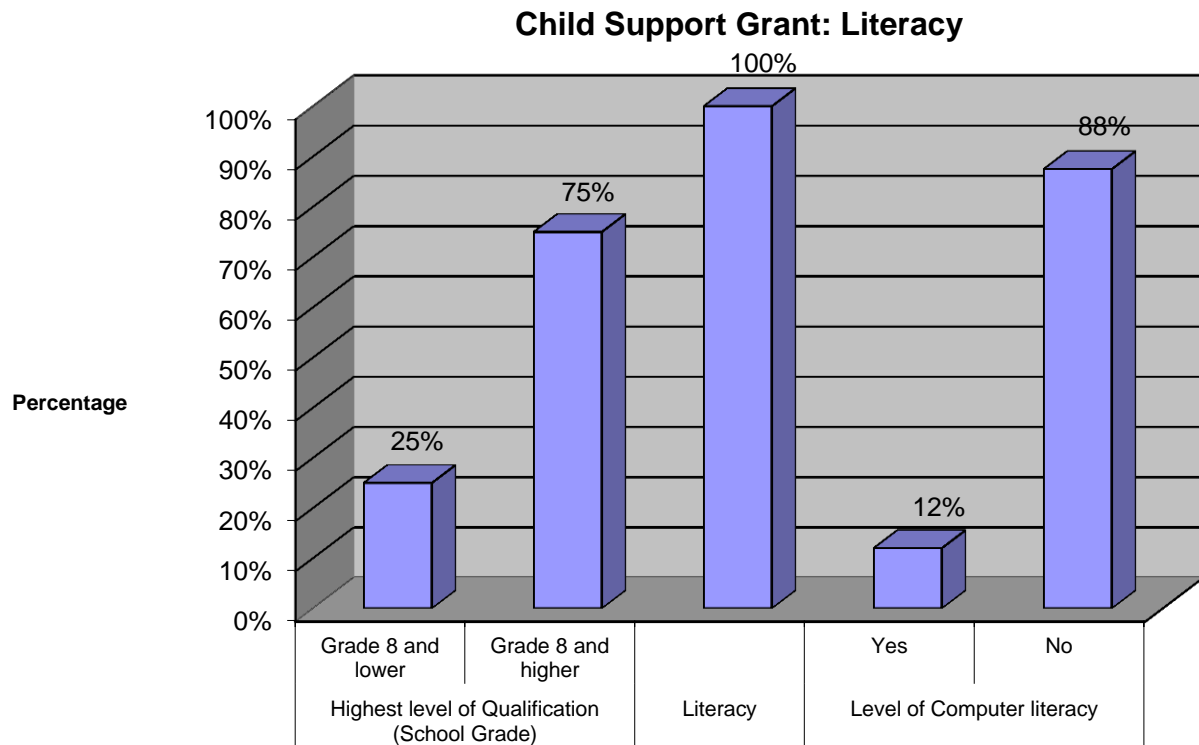
Figure 15: CSG turnaround time of grants



Level of education and computer literacy

Figure 16 indicates that 25% of the CSG participants have a schooling of Grade 8 and lower, while 75% have a higher education. Although 100% of the CSG customers were found to be literate, 88% of them are not computer literate. The fact that only 12% of the CSG participants are computer literate, pose a great challenge to SASSA should the agency embarks upon online services.

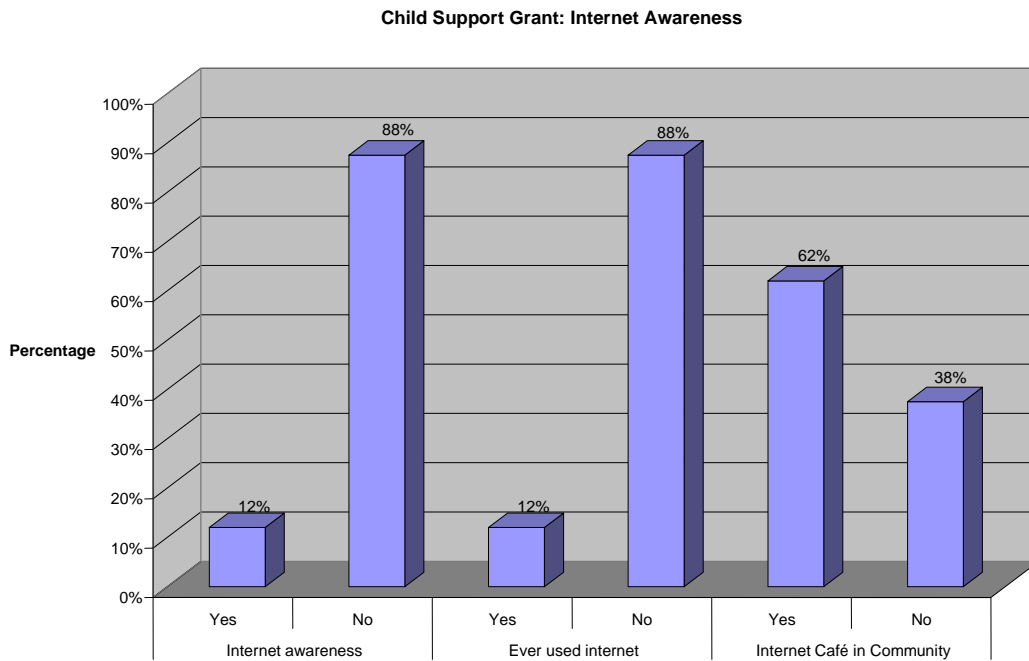
Figure 16: CSG literacy



Internet awareness

Figure 17 shows that 88% of the CSG customers are aware of the internet, while 12% have never heard of the internet. Eighty-eight percent of the customers have used the internet before, whereas 12% have not used the internet. Sixty-two percent of the customers were aware of an internet café in their community, while 38% were not aware of such cafés. Since the majority of the CSG customers are aware about the internet as well as internet cafés in the community, they may be interested in accessing internet services at the internet cafés. This presents an ideal opportunity for SASSA should electronic services be made available.

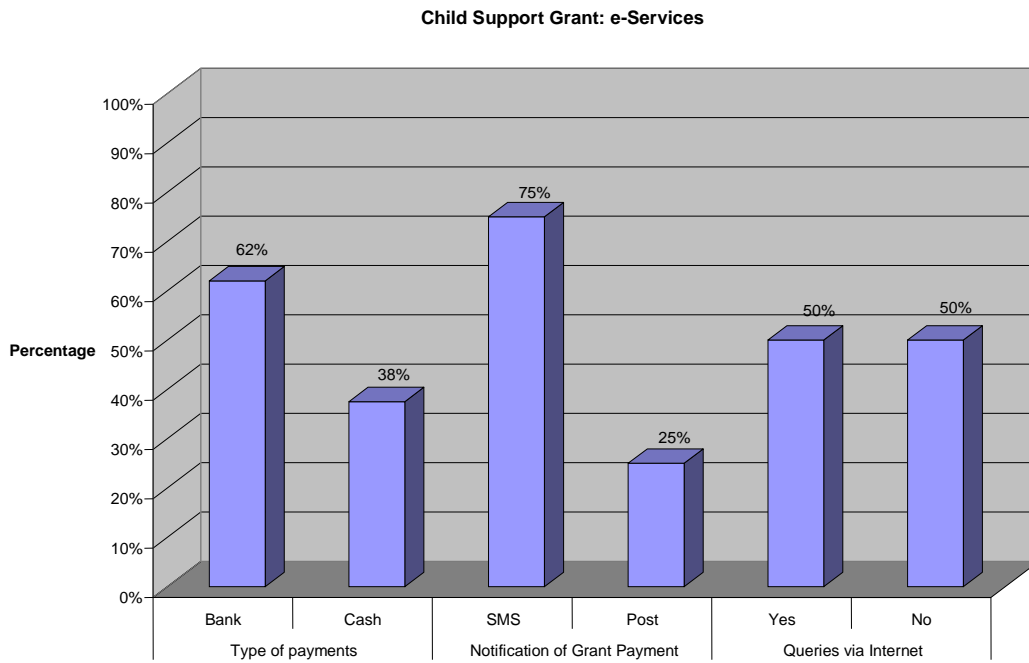
Figure 17: CSG internet awareness



e-Services

Figure 18 illustrates that 62% of the CSG customers would prefer receiving their grant in the bank, while 38% were not in favour of this option. Seventy-five percent of the customers would like to be notified via SMS about grant payments or related information, while 25% preferred correspondence through the post. Fifty percent of the customers would like to lodge a query or complaint via the internet, while 50% preferred to consult an official at the office. Since the majority of the CSG customers indicated that they would like to correspond via SMS, reveal that there is a need for m-services which SASSA could take into consideration. There is also a willingness among these customers to make use of internet services which provides a good opportunity for SASSA when considering electronic service delivery.

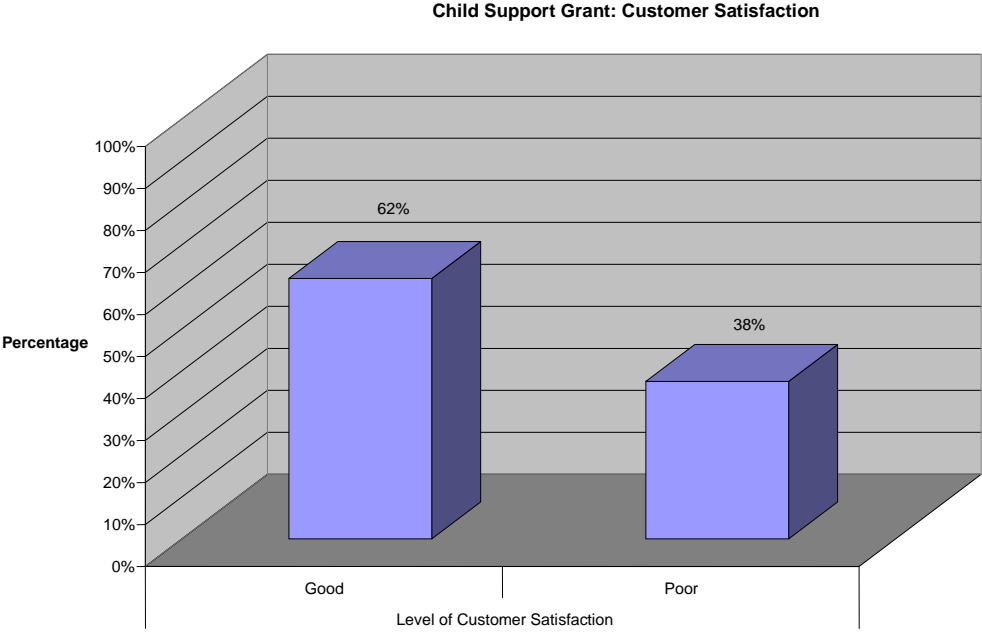
Figure 18: CSG e-services



Customer satisfaction

Figure 19 shows that 62% of the customers were satisfied with the services rendered by SASSA, while 38% were not quite satisfied. Although the majority of the CSG customers are satisfied with the services provided by SASSA, there still remains a high percentage of dissatisfaction amongst these grant recipients. This certainly raises a concern that requires further exploration by SASSA.

Figure 19: CSG customer satisfaction

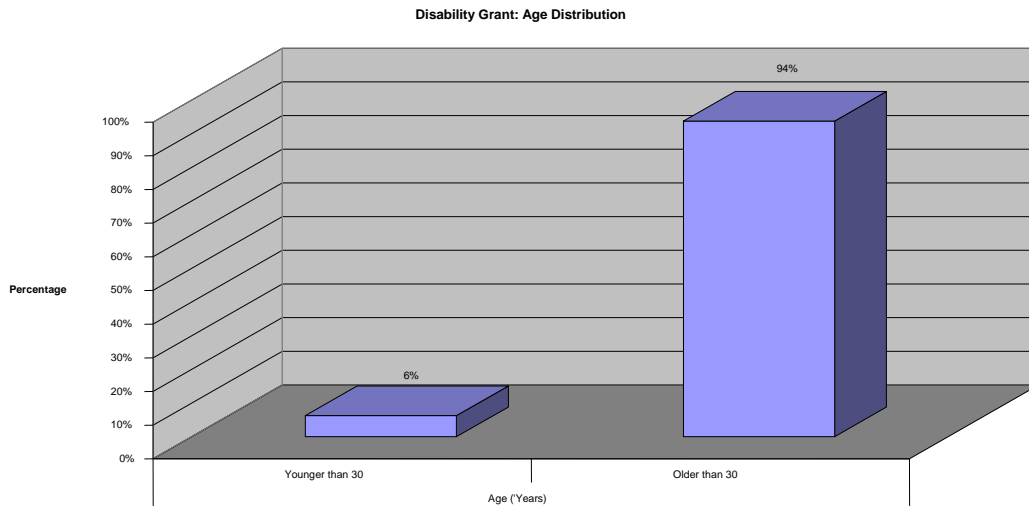


6.2.3.2 Disability grant

Age distribution

There were 16 customers receiving disability grants who participated in the completion of questionnaires for the purpose of this research study. One of the 16 participants was younger than 30 years, and 15 participants were older than 30 years which implies that the majority are older and probably in receipt of a grant for a longer period.

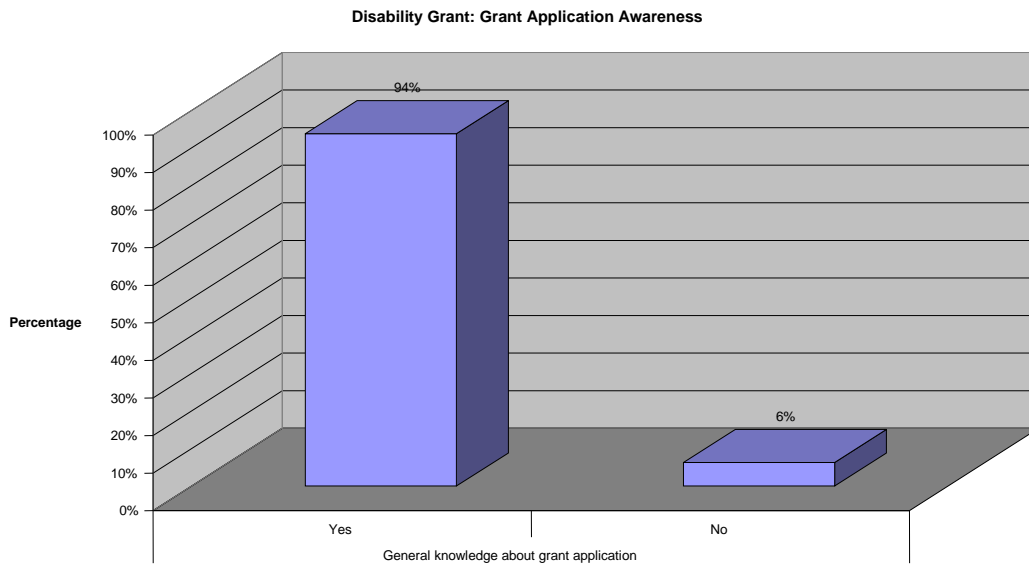
Figure 20: DG age distribution



Grant Application Awareness

Figure 21 shows that 94% of the participants were aware of the procedures to follow when applying for this grant, while 6% were not aware of such procedures.

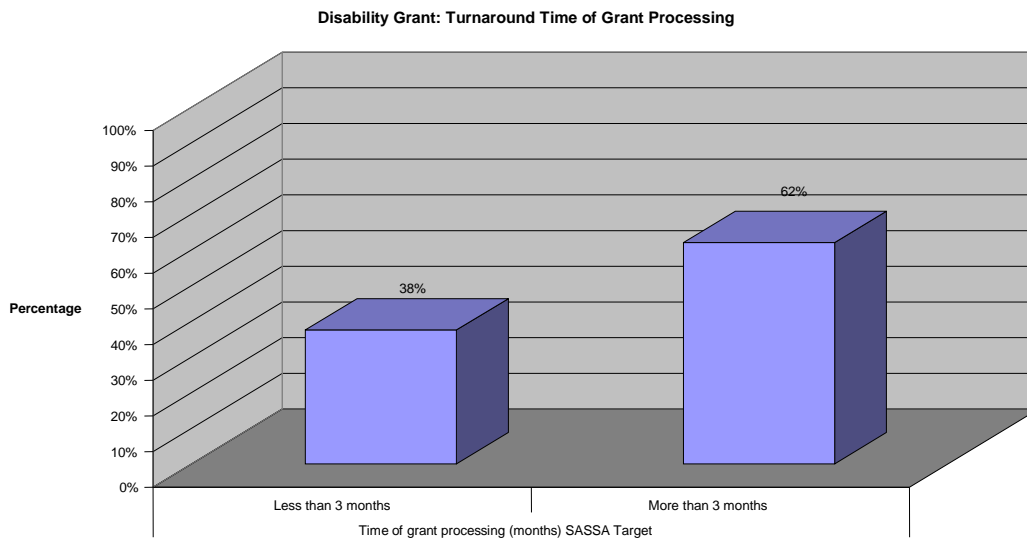
Figure 21: DG grant application awareness



Turnaround time of grants

The grants of the DG participants were approved within an average period of three months. The majority of the DG customers had a good understanding of the grant application process. The turnaround time in which the disability grants were approved, took approximately three months which is, however, three times longer than that of the child-support grant, with an average turnaround time of one month.

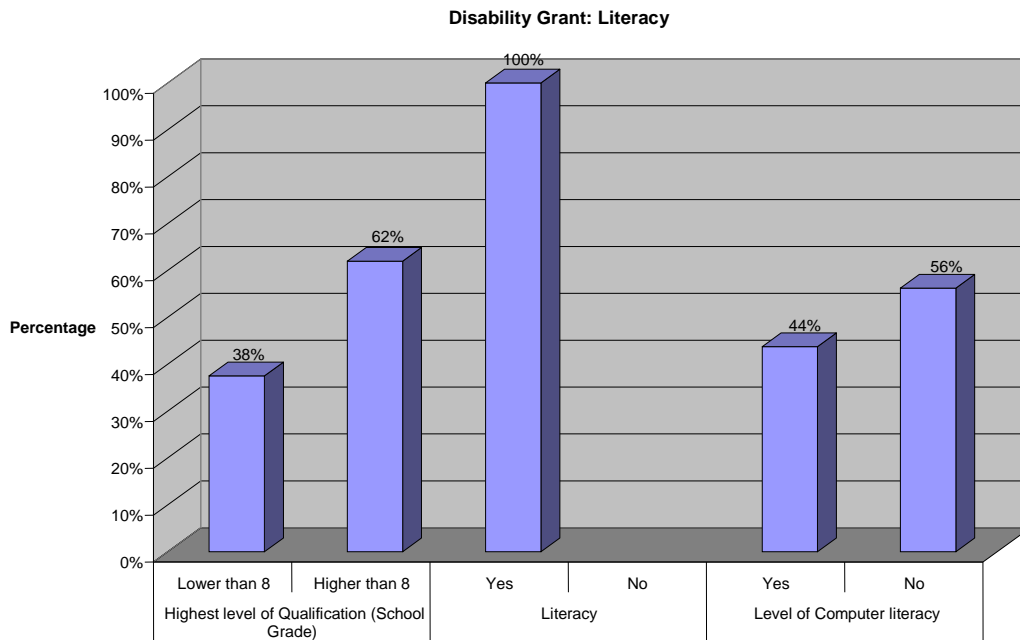
Figure 22: DG turnaround time of grants



Level of education and computer literacy

Figure 23 indicates that 38% of the DG participants have had schooling lower than Grade 8, while 62% had Grade 8 and a higher level of schooling. These grant holders on average have completed Grade 10 and it was found that 100% of the participants are literate. Forty-four percent of the DG recipients are computer literate, while 56% have not used a computer before. The majority of the DG customers had a basic schooling of Grade 8 or higher and therefore a 100% literacy rate. Although 44% of the DG customers have utilised a computer, the majority which comprise of 56%, are not computer literate which could delay the implementation of electronic services by SASSA.

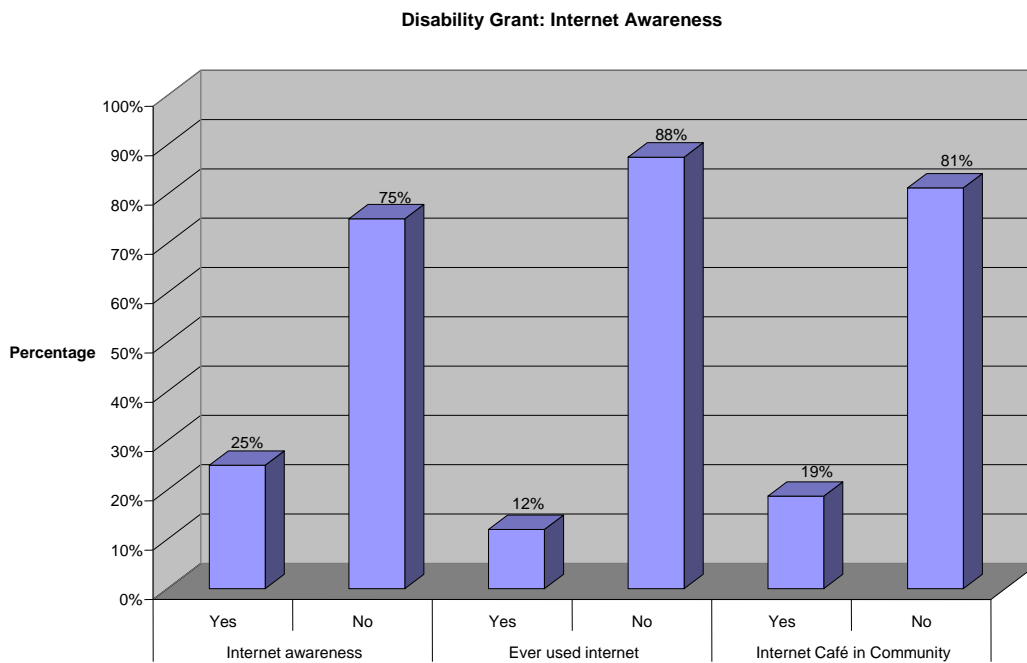
Figure 23: DG literacy



Internet awareness

Figure 24 illustrates that 25% of the DG customers are aware of the internet, while 75% have not heard about the internet at all. Twelve percent of the customers have used the internet before, whereas 88% have not used the internet before. Nineteen percent of the customers were aware of an internet café in their community, while the majority which is 81% had no knowledge of internet cafés. This poses a great challenge for SASSA should the agency considers providing electronic services to this grant recipients. The researcher therefore recommends that SASSA embark upon awareness programmes to inform their customers about the internet as well as to promote the benefits thereof to particularly the disabled customers. The researcher is of the opinion that disabled persons especially should consider online services since this would eliminate long queues and discomfort.

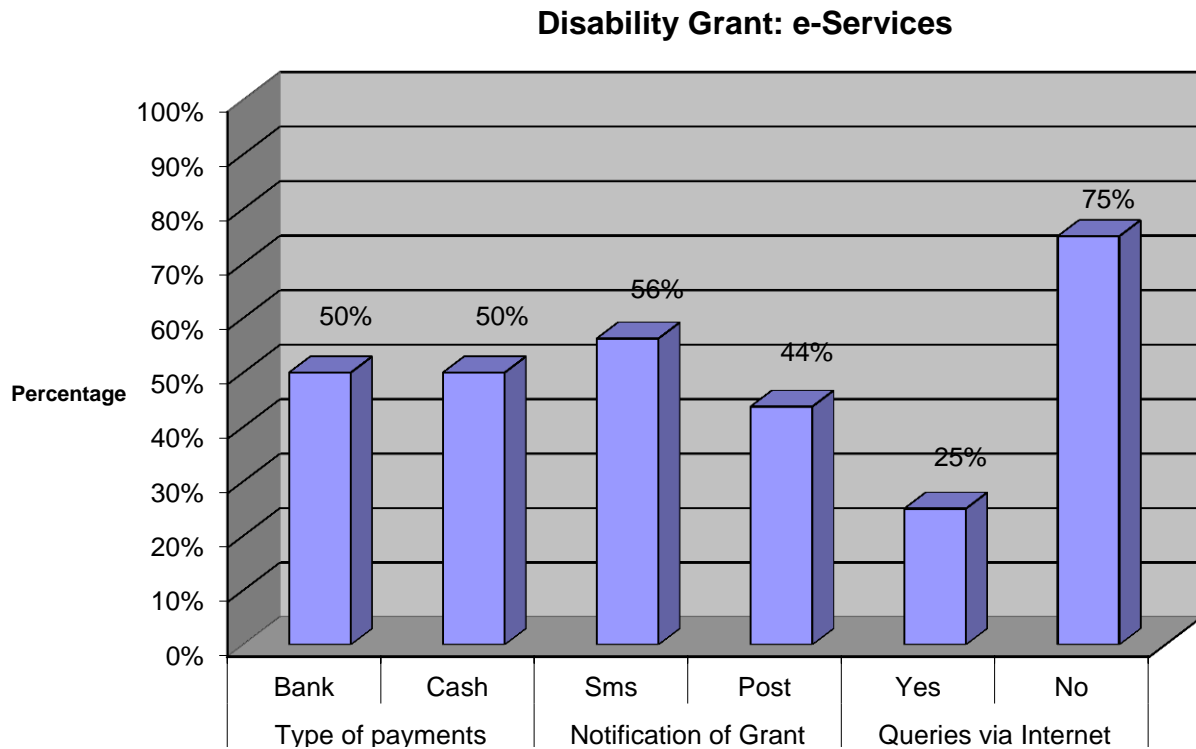
Figure 24: DG internet awareness



e-Services

Figure 25 indicates that 50% of the DG customers prefer to receive their grant in the bank, while 50% prefer cash payment. Fifty-six percent of the customers would like to receive notification by SMS, while 44% prefer correspondence through the post. Twenty-five percent would like to lodge a complaint/query via the internet, while 75% prefer to approach the office. The researcher is of the opinion that SASSA should extensively market the benefits of bank payments of grants since this could eliminate the possibility of robberies as well as save costs for the agency as mentioned in SASSA (2010:14). Similar to the CSG customers, the majority of DG customers are in favour of notification through SMS although the percentage is slightly lower than the 75% of CSG recipients. However, this still provides an opportunity for SASSA to render m-services. It is interesting to find that despite the physical disability of the DG grant recipients, the majority of them prefer going to the offices of SASSA instead of opting to making use of online services, should SASSA provided these.

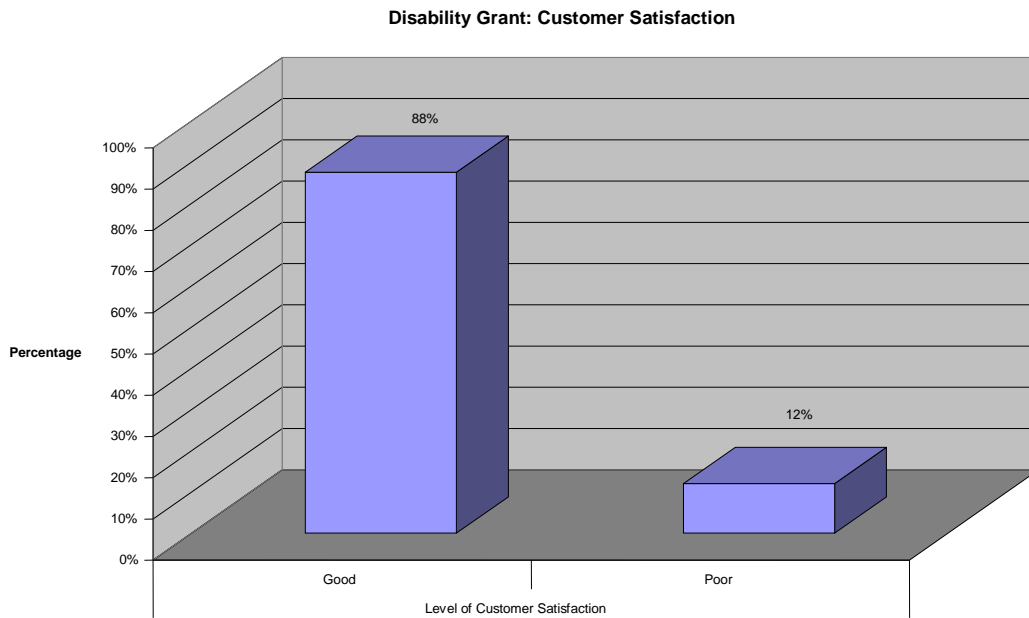
Figure 25: DG e-services



Customer satisfaction

Figure 26 shows that 88% of the customers were satisfied with the services rendered by SASSA, while 12% were not satisfied with service delivery which is lower than the percentage of CSG recipients.

Figure 26: DG customer satisfaction

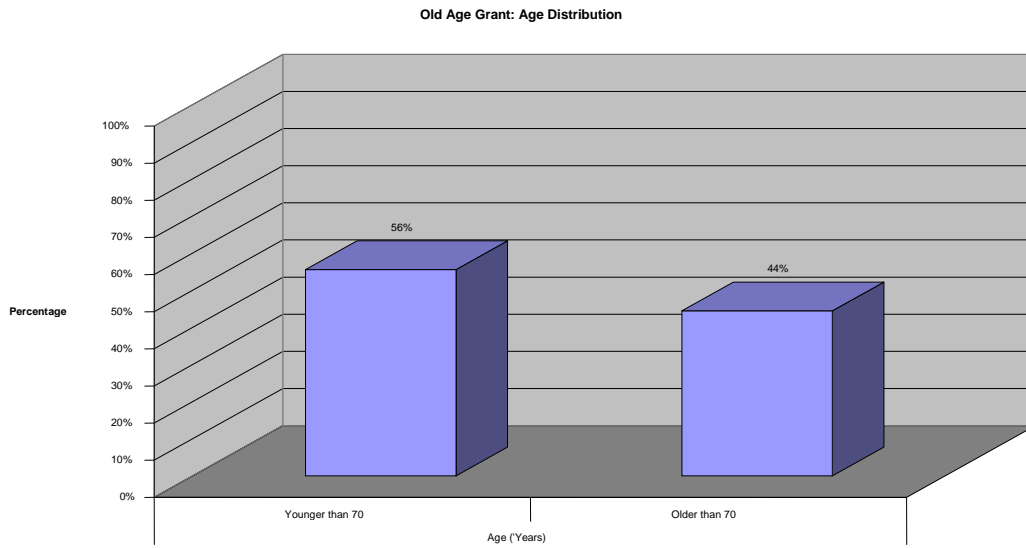


6.2.3.3 Old-age grant

Age distribution

There were 9 customers currently receiving old-age grants who participated in the completion of the questionnaires. Fifty-six percent of the participants were younger than 70 years, and 44% were older than 70 years, as illustrated in Figure 27.

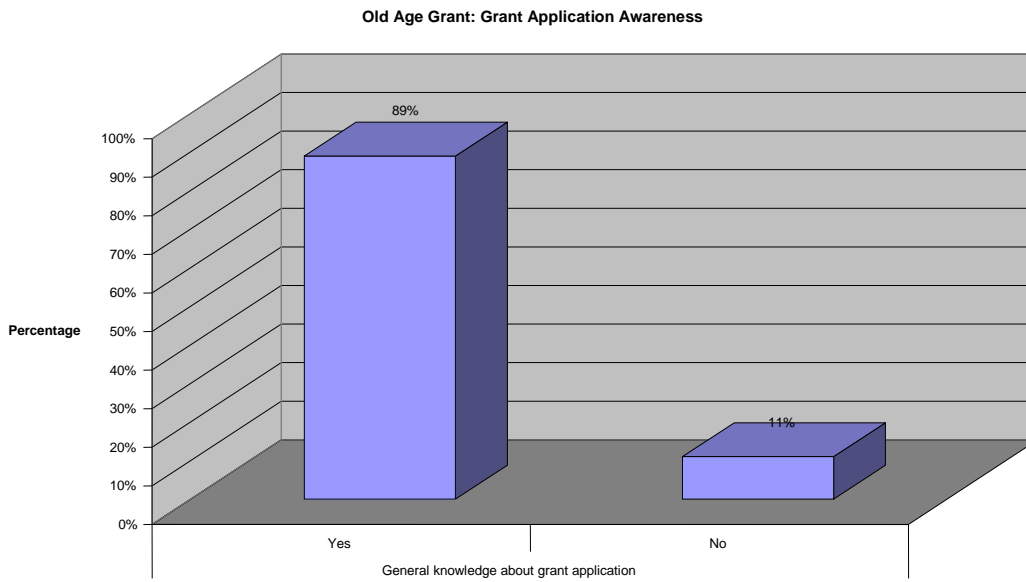
Figure 27: OAG age distribution



Grant Application Awareness

Figure 28 shows that 89% of the participants were aware of the procedures to follow when applying for their grant.

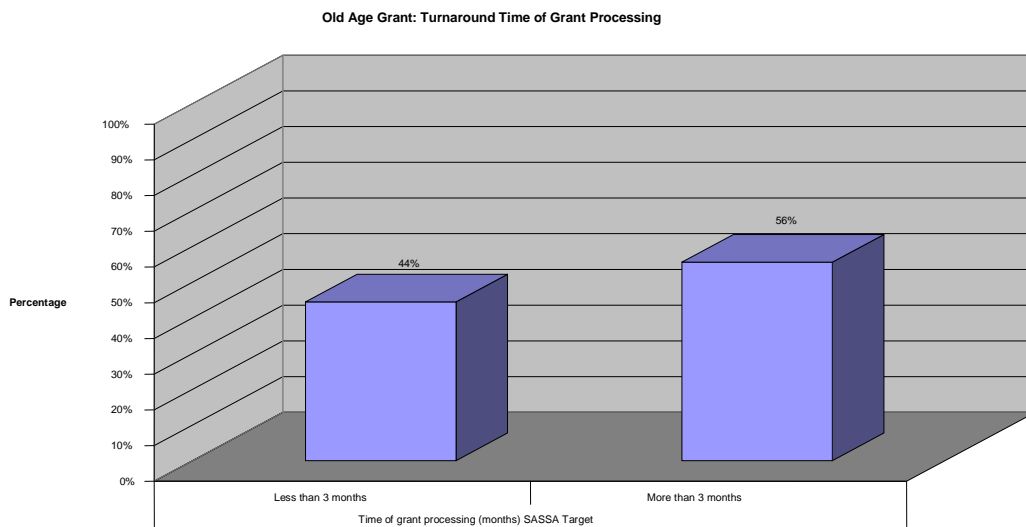
Figure 28: OAG grant application awareness



Turnaround time

On average, the turnaround time for the old-age grant to be approved was found to be 2,5 months as depicted in Figure 29. It appears that the recipients of all three grant types have a good understanding of the grant application process. The turnaround time of the OAG applications was approximately 2,5 months which is close to that of the DG recipients. The grant application process therefore remains an area in need of improvement for SASSA.

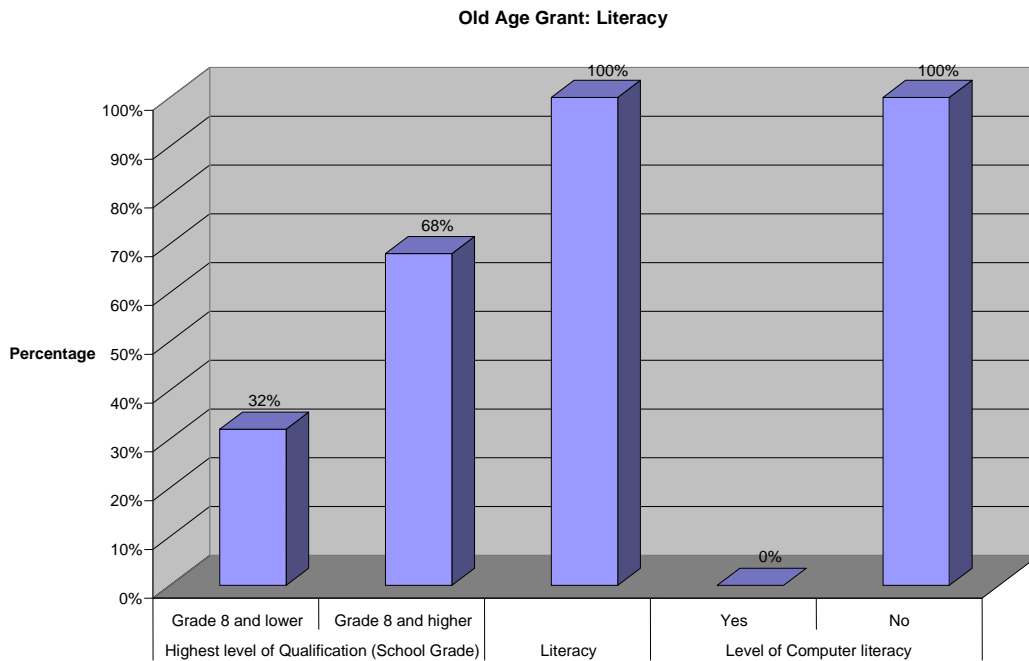
Figure 29: OAG turnaround time



Literacy

Figure 30 indicates that these grant holders on average completed Grade 7 and it was found that 100% of the participants are literate. None of the participants have previously utilised a computer. Despite the fact that all of the OAG recipients are literate, none of them are computer literate. This poses a great challenge for SASSA in respect of electronic service delivery to the OAG customers when taking into consideration that the percentages of CSG and DG recipients were more in favour of e-services.

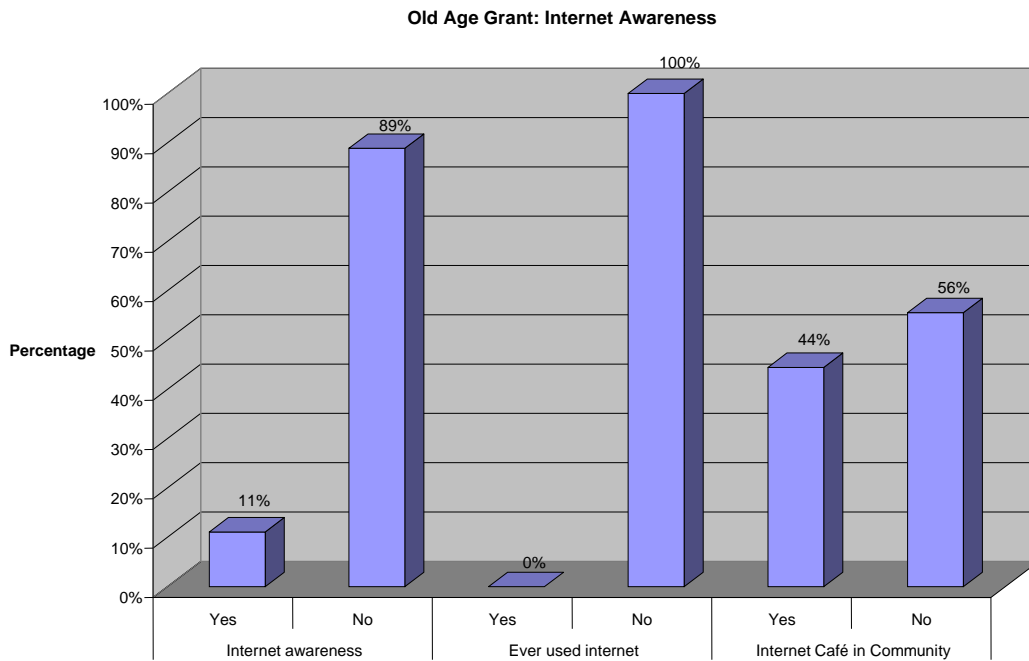
Figure 30: OAG literacy



Internet awareness

Figure 31 shows that 11% of customers are aware of the internet, while 89% are not familiar with the internet. 100% of the customers have not used the internet before. 44% of the customers were aware of an internet café in their community, while 56% have no knowledge of such an internet café. The majority of the OAG customers are not aware of the internet since none of them have ever utilised the internet. It is, however, interesting to find that quite a high percentage of OAG recipients are aware of internet cafés in their community which is higher than the 19% of the DG customers but lower than the CSG customers with the percentage of 62.

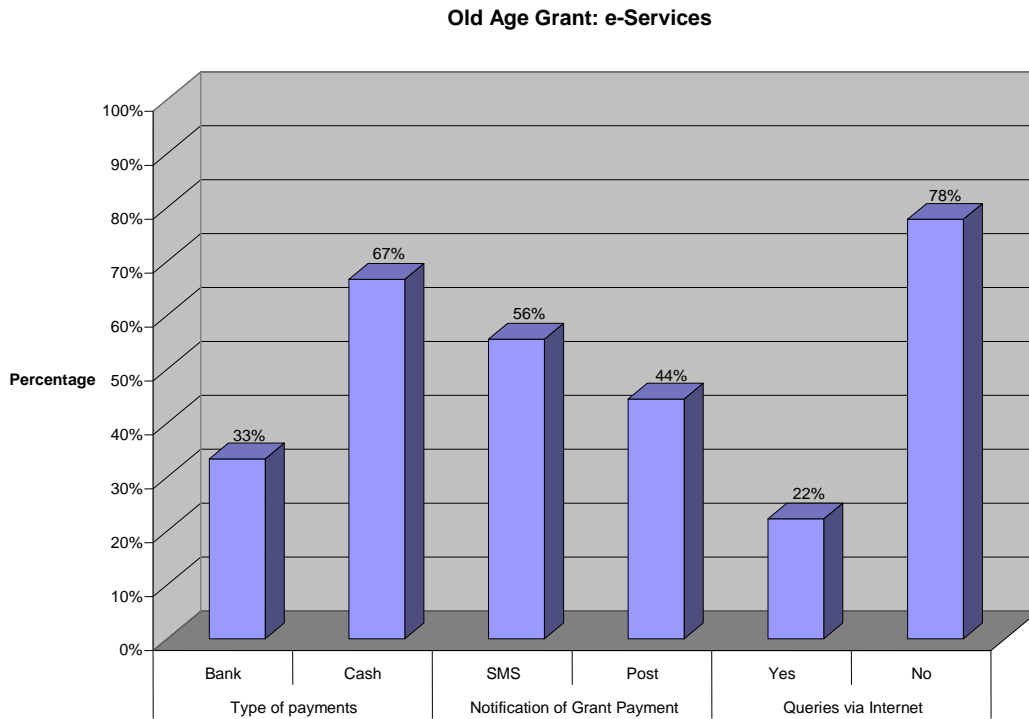
Figure 31: OAG internet awareness



e-Services

Figure 32 indicates that 33% of the customers prefer to receive their grant in the bank, while 67% prefer cash payment. Fifty-six percent of the customers would like to receive notification by SMS, while 44% prefer correspondence through the post. Twenty-two percent would like to lodge a complaint/query via the internet, while 78% prefer to approach the office. The majority of the older persons prefer cash payments which is different from the preference of the CSG and DG customers. It is also interesting to find that the majority of the OAG recipients are in favour of SMS notifications which are similar to 56% of DG customers but slightly lower than the 75% of the CSG customers. The majority of the older persons prefer to approach the SASSA office when having a query which is slightly more than the 75% of DG customers.

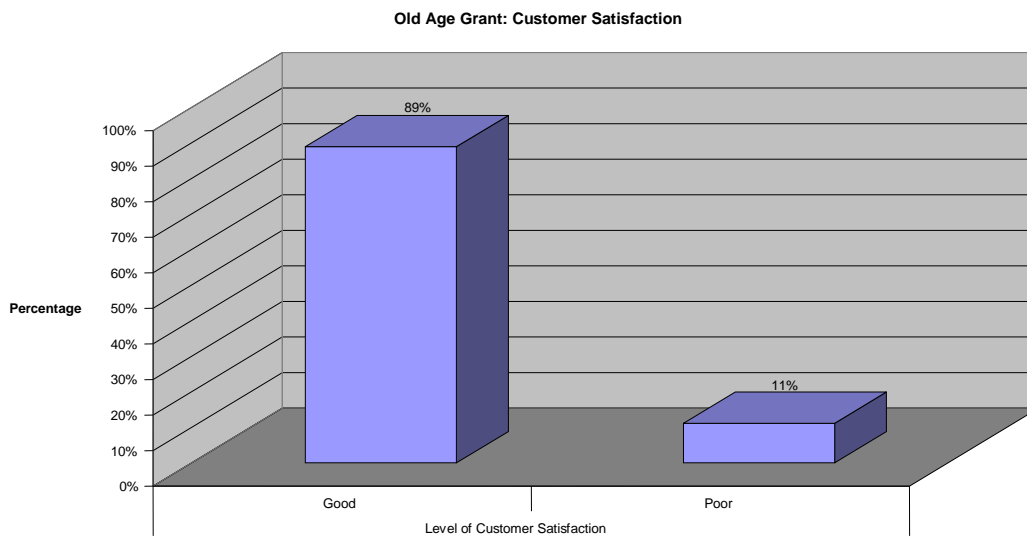
Figure 32: OAG e-services



Customer satisfaction

Figure 33 shows that 89% of customers were satisfied with the services rendered by SASSA, while 11% were not satisfied with the service delivery of SASSA. The OAG recipients reflect the highest percentage of satisfaction in respect of service delivery of SASSA, followed by the DG customers with an 88% level of satisfaction. The CSG recipients have the highest level of dissatisfaction in regard of the services provided by SASSA.

Figure 33: OAH customer satisfaction



6.2.4 Average Results of Customer Questionnaires

Although the individual results have been presented, it was found necessary to present the average results of the research findings for all customers. In respect of knowledge about the grant application process, 94% of all customers were aware of the grant application process as depicted in Figure 34. This is an indication that the majority of the customers were well-informed about the requirements and important documents needed for the finalisation of this process. The results indicated that 60% of grant recipients waited more than 3 months, on average, for their grants to be processed. This is more than the duration SASSA aspires. The results also confirm that this is a developmental area that needs to be improved by SASSA since its core duties indicate that the average time for processing is 24 hours. The majority (68%) of the grant recipients have completed Grade 8 and higher which presents an opportunity for SASSA to render e-services.

Figure 34: Average age, grant knowledge, grant processing time line and education distribution

AVERAGE AGE, GRANT KNOWLEDGE, GRANT PROCESSING TIME LINE AND EDUCATION DISTRIBUTION

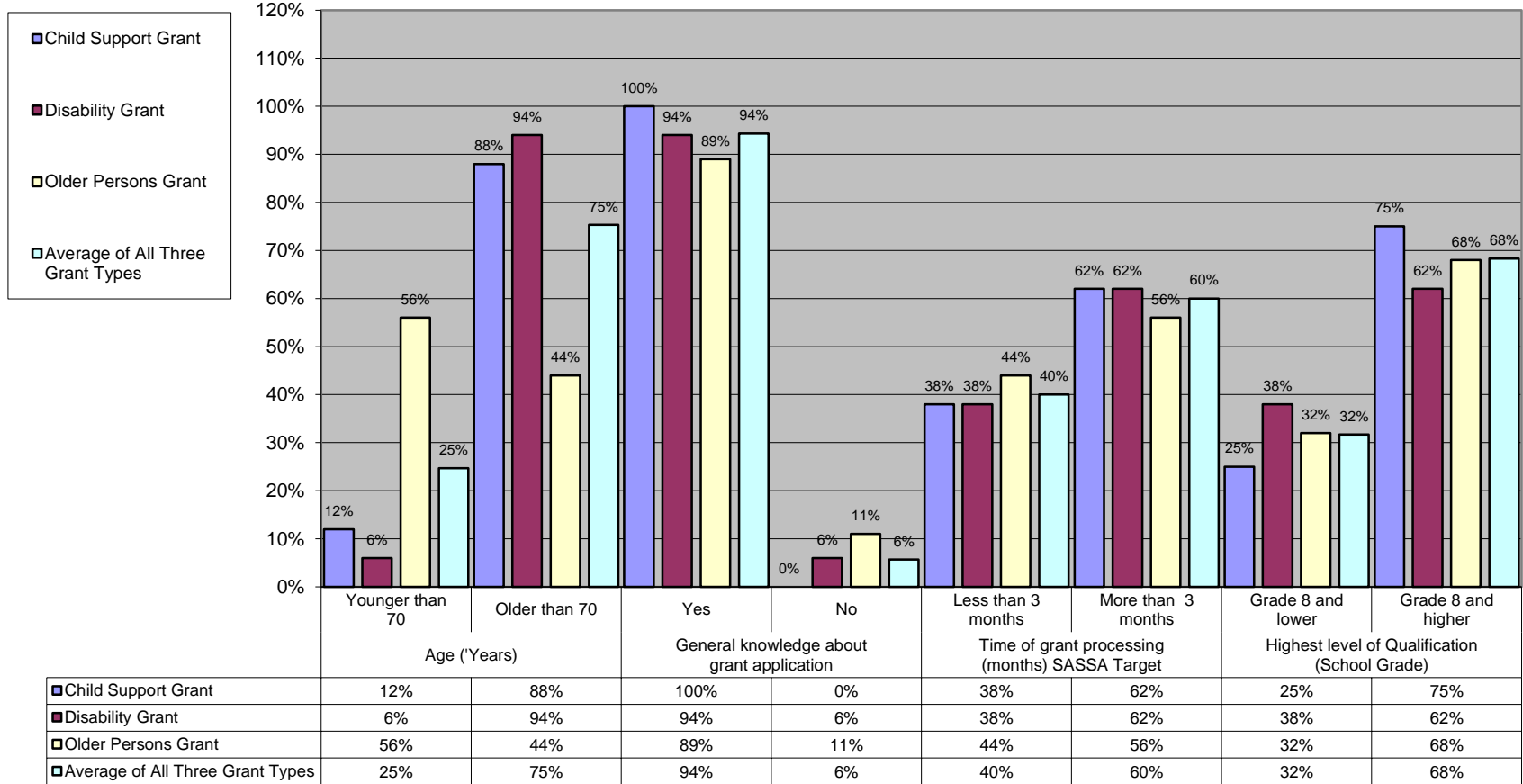


Figure 35 indicates that all (100%) SASSA customers are literate which implies that they can read which create prospects for rendering e-services. Despite the 100% literacy rate, 81% of customers are not computer literate with the majority being older persons. The disabled recipients appear to be the majority of persons being computer literate with a percentage of 44 which provides a good starting point for e-services. The results further indicate that 84% of grant holders are not aware about the internet, as depicted in Figure 35. Again, 25% of disabled customers are aware about the internet which reflects slightly more than the other grant recipients. However, the majority of customers have not used the internet before and adds to 92%. It was interesting to find that although the majority have not utilise the internet before, 58% of them were aware about internet cafes in the community. This is an indication that they have heard about the cafes and would be able to access internet services from these cafes.

Figure 35: Average Literacy, computer literacy and internet awareness and usage distribution

AVERAGE LITERACY, COMPUTER LITERACY AND INTERNET AWARENESS AND USAGE DISTRIBUTION

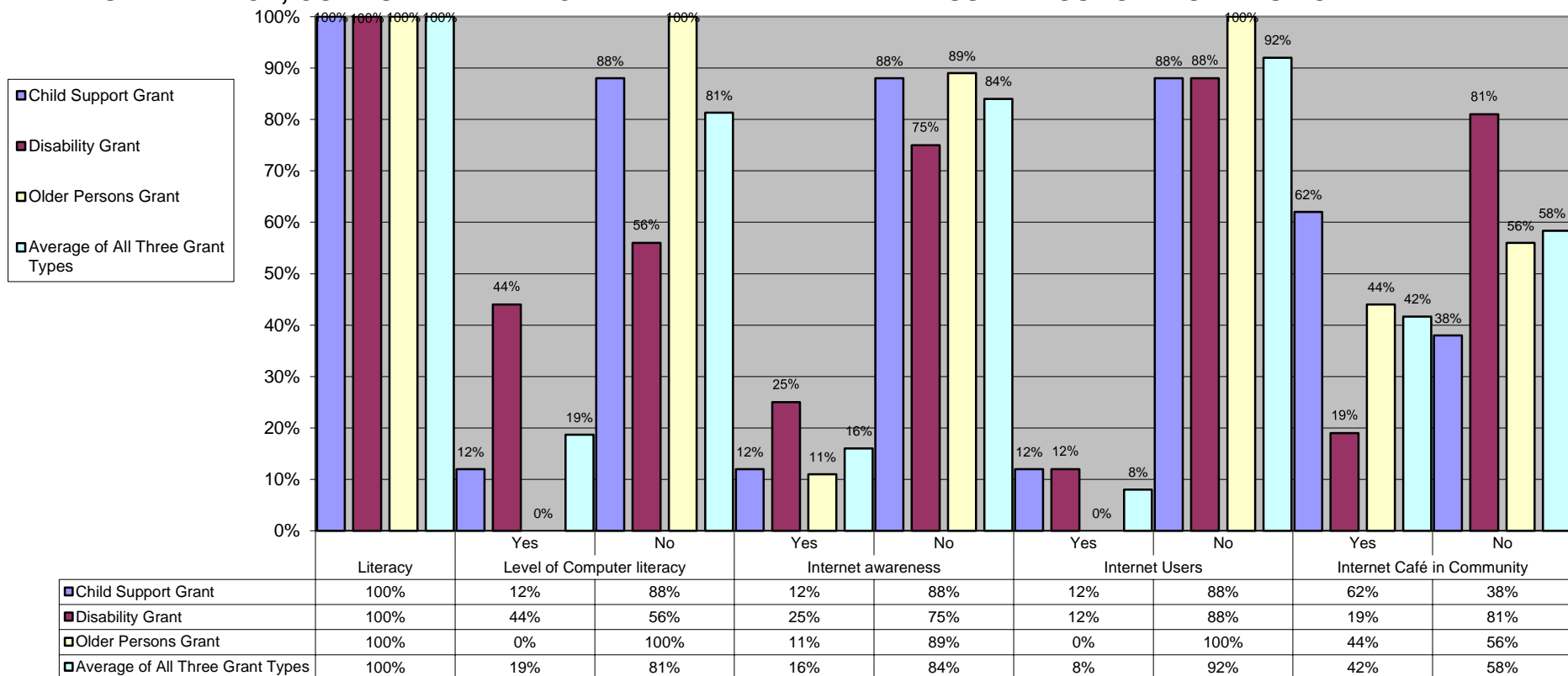


Figure 36: Average payment, Notification, Queries and Customer Service Distribution

AVERAGE PAYMENT, NOTIFICATION, QUERIES AND CUSTOMER SERVICE DISTRIBUTION

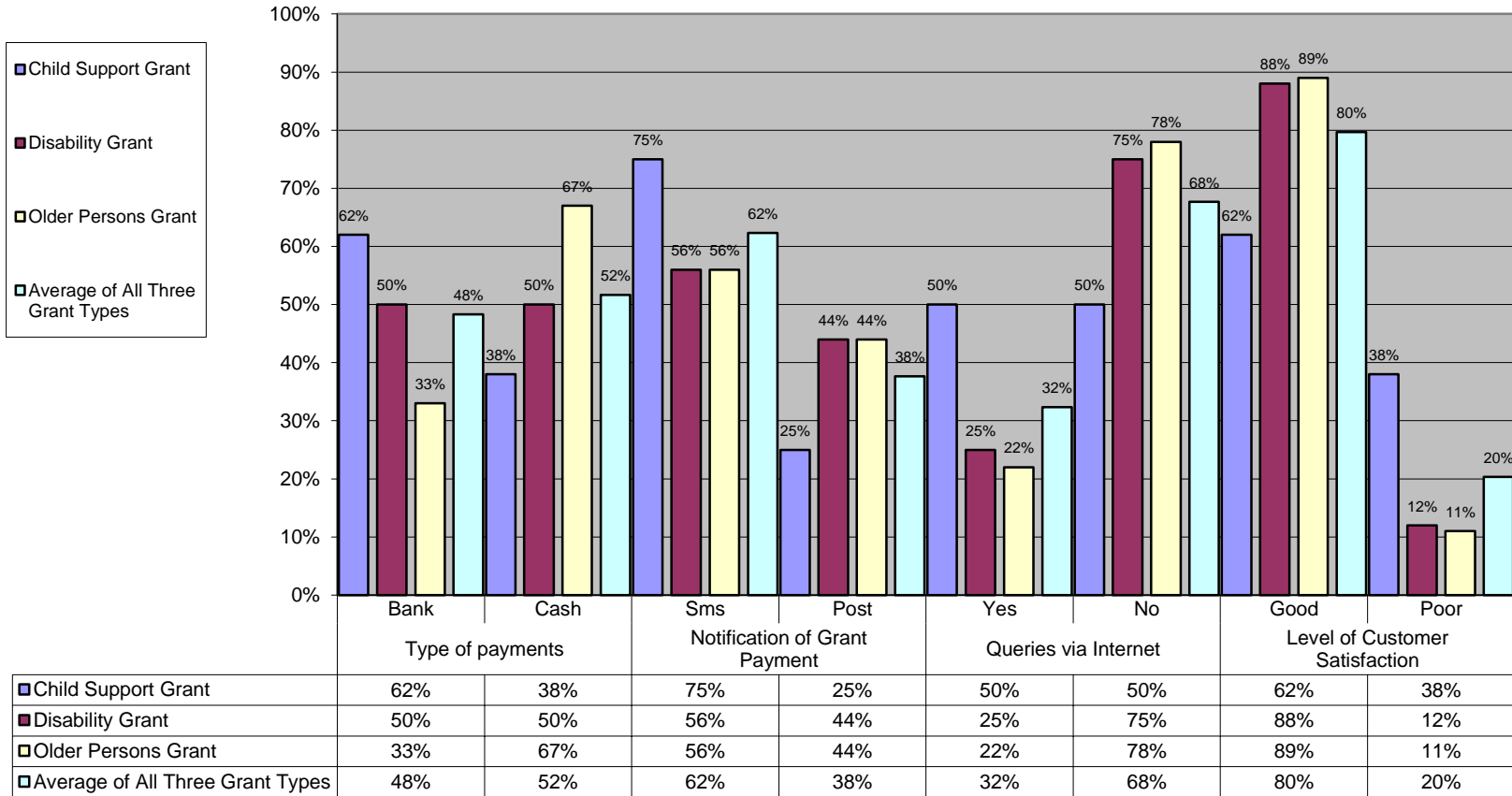


Figure 36 illustrates that the majority of the customers (52%) indicated that they were in favour of cash payments. The old age grant recipients were found to be more in favour of cash payments since they are of the opinion that it is safer and also save on banking fees. This is easy to understand since the new generation (foster care and disability grant holders) are more likely to be aware about the internet and the advantages of bank transactions. SASSA should consider to motivating its customers to make use of banking and also making it optional for grant recipients to decide upon cash payment. 62% of customers prefer notification of grant payment and other notifications through the means of SMS instead of post. This provides a great opportunity for SASSA. The minority of 32% of customers are interested in resolving queries through the internet. The majority of customers are satisfied with the services rendered by SASSA and this works out to 80%.

6.3 Interpretations of results

Naidoo (2007:330) suggests that strong, political and “bureaucratic” leadership is essential for the successful implementation of e-government in South Africa. Naidoo (2007:330) is also of the opinion that government should create the suitable circumstances such as privacy, consumer protection and create and improve the required infrastructure. The EIU (2009:4) explains that an e-readiness assessment assists a country to determine the quality of the infrastructure as well as the eagerness of its customers, businesses and the government to use ICT (see 2.2.2 of this study).

The interview conducted with the ICT Manager at the SASSA Regional Office Western Cape confirmed that this office has a fully networked ICT department with applications on a central server in a departmental data centre. SASSA has implemented several electronic systems to manage its administrative processes. All pensions are captured and administered on the SOCPEN system; e-mails are accessed from Groupwise; information pertaining to human resource management is captured on the PERSAL system and finances are captured on the BAS system. The results of this research study indicate that the SASSA Regional Office Western Cape has a sustainable ICT infrastructure. This is promising considering that inadequate infrastructure, such as

equipment shortages and limited access to the internet, hamper the extent to which potential system users are able to use e-services (Harker-Burnhamset.al, 2010:6).

DPSA (2001:5) emphasises that a sophisticated ICT infrastructure together with affordable computers, appliances and access to the internet are essential to put e-government into practice. Naidoo (2007:330) agrees with DPSA and further adds the importance of ample time and adequate capital to accomplish e-government. Naidoo (2007:328) explains that in general, the government departments and businesses in South Africa are reluctant to spend large amounts of funds on advertising the utilisation of the internet. Lesame (2005:197-198) mentions that the high-priced ICT equipment in South Africa tend to often delay the implementation of e-government at organisations. This appears to be relevant to SASSA when considering the low budget allocated to the ICT budget in relation to how expensive ICT equipment are in the country. The regional office is allowed to spend up to an amount of R5,000; however, the ICT manager indicated that this amount is not adequate for the ICT department.

Lesame (2005:197-198) lists several challenges to the implementation of e-government in South Africa and mentions that there is a lack of technically skilled persons to manage and maintain the technology in government. Schuppan (2008:20) is of the opinion that to increase the level of cooperation in e-government, capacity building should be regarded as the centre of attention. The ICT Department of the SASSA Regional Office Western Cape consists of 10 staff members, of whom some staff members have basic computer training and others advanced computer software training. This can also pose a challenge to the agency for the effective implementation of e-government.

The SASSA Regional Office Western Cape has a MIS Warehouse to store all the registry files and makes use of the Hotkey system. This system is in its first phase and has not yet been completely installed. SASSA is more focused on effectively managing the internal systems such as SOCPEN, ERP and RMC than on the implementation of e-government projects. Mpidi (2009:6,7) mentions that one of the obstacles to the

successful implementation of e-government is the approach of managers towards e-government. The author is of the opinion that if leaders do not regard e-government as a priority, they will not be enthusiastic to develop policies or implement e-government initiatives. This can hamper the possibility of SASSA rendering e-services. Although SASSA has a website for the dissemination of information as well as to promote its services, the researcher believes that it will take a long time before SASSA will move from its informational website to solving queries and complaints electronically or even implementing transactional services.

Pascual (2003:5) mentions that e-government attempts to bring about better and more accessible services to citizens. The advantages of electronic services include the provision of uncomplicated, accountable and responsive government services to the public (Manohar et.al., 2009:243). The customer manager explained that SASSA makes use of a prescribed customer survey questionnaire to determine the level of satisfaction among its customers. SASSA has a 48-hour turnaround time in which the agency needs to acknowledge receipt of a grant application and must provide a response to customers, if possible. The maximum turnaround time is 21 working days for a grant application that requires a further investigation. SASSA (2010:11) mentions, however, that each month there remains a backlog in the approval and capturing of grant applications in all the regions which is also an indication that SASSA has not met the set turnaround time. This is also evident from the data collected in this research study since 60% of all the customers experienced a waiting period of more than 3 months for their grants to be approved.

Riley (2003:15) explains that the electronic set-up (network) provides governments with an opportunity to disseminate information, address customer enquiries and complains, as well as to transact with the citizens. The author warns, however, that only those with internet access will be able to read the electronic documentation of government or benefit from these electronic services. The Customer Manager indicated that the Social Assistance Act encourages SASSA to promote grant payments through banks instead of making cash payments, since it is costly and SASSA has to pay the security

company to ensure the safety of both its staff and its customers. The data gathered from this study reveals that an average of 48% of all the customers prefers their grant being deposited into their bank accounts while 52% customers were in favour of cash payments. In other words, the majority still prefer cash payments.

Lesame (2005:197-198) regards the high level of illiteracy in South Africa as one of the biggest challenges to the implementation of e-government. The Customer Manager explained that the staff members of SASSA regularly inform customers about the agency's website and the type of information available online. The research results indicated that 84% of all customers were not aware about the internet; however, 58% of all customers were aware about internet cafes in the communities. The average of customers who are computer literate is 18% while 81% of all customers are not computer literate. This reflects a need for computer skills among the customers of SASSA. The researcher is of the opinion that SASSA also needs to extensively market its website among its customers to create awareness about online information regarding the agency.

The purpose of this research was to determine the willingness of SASSA customers to utilise online services. In respect of e-government, 62% of all customers indicated that they would like to be notified via SMS about grant payments or related information, while 38% of all customers would like to receive notification by post. The majority of all three types of grant recipients preferred being notified via SMS which present a favourable opportunity for SASSA to render such services to its customers.

6.4 Conclusion

Chapter Six provides an overview of the results of the interviews and questionnaires disseminated at the SASSA Western Cape Regional Office. The findings indicated that the agency has a sustainable ICT infrastructure; however, e-government is not regarded as a priority. In respect of customer care, services are made accessible to the people in several ways such as the service points at community halls and Integrated Community

Registration Outreach Programmes (ICROP) in the rural communities. This is an indication that SASSA is serious about service delivery and poverty alleviation.

The majority of the beneficiaries who have participated in this research study indicated that they are willing to receive notifications via SMS while the majority of the CSG customers were in favour of grant payments through the bank. The research reflects that there is an average of 81% of SASSA customers who need computer skills and obtain a greater awareness in respect of the website of SASSA, e-services and internet cafés in their communities. One has to take into consideration that South Africa is a developing country and that ordinary citizens, especially the senior citizens, are familiar with the practice of approaching the relevant offices in respect of services. Internet or electronic services remains a fairly new topic to them. The research study is limited to only a small percentage of SASSA customers who reside in Cape Town and cannot be generalised to all the customers of SASSA. Chapter Seven will provide a summary and make recommendations based on the findings of the study.

CHAPTER 7: SUMMARY, RECOMMENDATIONS AND CONCLUSION

7.1 Summary of study

7.1.1 Introduction

The progress in respect of technology offers great potential in assisting the government of South Africa to address several challenges it experiences, such as better service delivery, efficient functioning, improved communication with citizens and businesses, and better procurement. The information revolution has certainly made an impact on how the South African government is responding to the needs of its beneficiaries. However, one has to take into consideration the fact that in South Africa approximately 14.7% households have a computer, while only 4.7% households have a working internet connection. The number of South Africans who access the internet monthly (9.5%) are less than those listening to the radio (94.1%) and watching television (83.7%).

Despite the statistics indicating that a majority of South Africans do not own a computer or access the internet, latest statistics reveal a rapid increase in South Africans accessing the internet particularly through their cell phones. MyBroadband (2010) mentions that there are approximately 5 million persons making use of the internet in South Africa with a growth rate of more than 15% in 2009 (see 1.1.1 of this study). The statistics further estimated that close to 3,36-million people make use of mobile phones to access the internet, reflecting a rapid increase.

The aim of this study was to assess the extent to which SASSA Western Cape is ready to implement e-government. The scope of the research was to determine the level of e-readiness of SASSA, the level of computer literacy and the adoption of e-services by its customers. The research design and methodology were an empirical study employing a case study of SASSA and its state of e-readiness and the willingness of its customers to make use of e-services.

7.1.2 Theoretical framework

Chapter two provided definitions and explanations of the key concepts and terms used in respect of ICT and e-readiness. A list of pieces of legislation pertaining to e-government in South Africa was provided. Several examples of e-government were highlighted with a discussion on the benefits, limitations and challenges thereof. A brief discussion on the implementation of e-government nationally and internationally was also presented. The section on the theoretical framework was concluded by describing the provincial initiatives in South Africa, including the successes and the challenges experienced. e-Readiness assessments make use of quantifiable indicators that provide a synopsis of the circumstances of a specific country in order to make comparisons and facilitate future planning. e-Services and m-services are the way of the future and if such services are well-planned and used innovatively, service delivery can be improved.

7.1.3 e-Readiness tool

Ernst and Young conducted a study on the Delhi government to measure the level of adoption of e-readiness by the Delhi government. The researcher made use of the Delhi e-Readiness Roadmap, developed by Ernst and Young to assess the electronic infrastructure of the SASSA Western Cape Regional Office. The researcher could not find developed questionnaires for the interviews that were to be conducted with the customer care manager and the customers of SASSA. As a result the researcher designed such questionnaires herself. The researcher was guided by literature from Ruikar, Anumba and Carrillo (2005:105) for the development of the questionnaire for the customer care manager and the customers of SASSA. The e-readiness tool developed by Oyomno in 2004 was used to identify the stage of maturity in respect of e-readiness of SASSA.

7.1.4 Data gathering and analysis

Chapter 5 provided an overview of how the research study was conducted. The key variables and the unit of analysis were briefly discussed. The researcher made use of data and literature reviews to obtain secondary data. Primary data were collected from the information gathered from the beneficiary questionnaires and interviews conducted

with experts. The willingness of SASSA customers to participate in electronic services provided an indication of the level of e-readiness (dependent variable) of the agency and its customers. e-Readiness (the dependent variable) relies on e-government (the independent variable).

7.1.5 Research findings

The interviews and surveys conducted by the researcher provided a good overview of the current state of e-services adoption within SASSA and among its customers. Although SASSA has a sustainable ICT infrastructure in place, the agency has not given priority to implement e-government initiatives. The research results indicated that 81% of all the customers are not computer literate, 52% of all customers are in favour of cash payments while 62% of all customers would like to receive notifications through SMS. The results thus indicate that the biggest challenge remains with the old age grant recipients who have no computer literacy skills; the majority prefer to approach the SASSA offices when having queries and also prefer receiving cash payments. This poses a big challenge to SASSA should the agency embark upon electronic service delivery.

7.2 Summary of findings

The objective of this study was to assess the ICT infrastructure of the SASSA Regional Office Western Cape for the provision of e-services. The study is also aimed at establishing both the level of computer literacy and the willingness of SASSA customers to make use of electronic services. The research findings will be discussed under the headings of the main objectives. The objective of the study and the results of the study will be incorporated into recommendations for SASSA.

7.2.1. Objective 1: Provision of electronic services

The first objective was to determine if the SASSA Regional Office Western Cape provides any electronic services. SASSA only has a database for the details of its customers, which are captured on the SOCPEN system. The SASSA website is entirely

informative and does not make provision for electronic service delivery in respect of enquiries being addressed online or transactions being processed online.

7.2.2. Objective 2: Sustainable Infrastructure

A second objective was to determine if the SASSA Regional Office Western Cape has a sustainable infrastructure at the various local offices from which it operates. The interview with the ICT Manager of the SASSA Regional Office Western Cape confirmed that SASSA has a fully equipped and networked ICT Department with a sustainable ICT infrastructure. SASSA makes use of four systems: SOCPEN; which is utilised for grant administration; PERSAL for personnel administration; BAS and LOGIS for financial administration.

The staff members, who operate from the local offices, make use of their notebooks and an offline system called BENEN, which provides data from the previous months in respect of SOCPEN. The staff members have access only to “old” data and are unable to add new information. The ICT Department is currently in the process of configuring a 3G router that will provide connectivity to MTN and be connected to the VPN. This implies that the pay point will have the same functionality as a local office since the staff will be able to trace progress in respect of grant applications and provide a printout. This will enable the staff to assist clients promptly and simultaneously speed up service delivery.

A MIS Warehouse was established where all registry files are kept and a system called Hotkey is utilised to trace a specific file. The second phase will look at scanning these files and making them available electronically. SASSA has an ICT security/disaster recovery plan in place. The staff members in the ICT Department are trained and well equipped in respect of ICT skills. In 2009 the ICT staff of SASSA did not undergo any training; however, in 2008 they attended various training workshops. SASSA utilises excellent technology; however, it does not have any e-government initiatives in place. One can conclude that the SASSA Western Cape Regional Office has a sustainable ICT infrastructure with qualified staff members, despite the challenges experienced

regarding the MIS Warehouse and the off-line system, BENEN. At present SASSA is focusing on its internal systems such as SOCPEN, ERP and MIS and the researcher is of the opinion that the agency has not embraced e-governance.

7.2.3. Objective 3: Computer Literacy

A third objective of the study was to determine the level of computer literacy of the customers of SASSA. In respect of computer literacy, 81% of recipients are not computer literate, with only 19% being computer literate. None of the OAG recipients were found to be computer literate and the researcher believes that the biggest challenge for SASSA would be to market the benefits of electronic services and equip their customers with the relevant skills should the agency consider electronic service delivery .In respect of internet awareness, the majority of customers were not aware about the internet.

This poses a great challenge to SASSA since it appears that the majority of its customers interviewed in this study, are not aware about the internet and has limited computer skills. One also has to take into consideration that only customers from three grant types from three districts in Cape Town were consulted in this study. The researcher is further of the opinion that this study cannot draw conclusions for all the grant recipients of SASSA in all the provinces.

7.2.4. Willingness to use e-services

A fourth objective was to determine if the customers of SASSA are capable of making use of the electronic services, and willing to do so, should these be provided by SASSA. In respect of electronic services, 48% of all customers indicated that they would prefer their grant being deposited into their bank accounts while 52% of all customers were in favour of cash payment. Cash payments hold in several challenges such as high costs for the agency and the possibility of robberies.

An average percentage of 62% customers were interested in being notified via SMS about grant payments or related information, while 38% of all customers preferred

notification through post. The majority of all the customers (68%) indicated that they were not in favour of lodging their queries via the internet while only 32% were interested in online services. This poses a big challenge to SASSA since the agency would seriously have to promote the benefits of electronic services among all grant recipients, especially older persons for the successful implementation of electronic services.

The researcher found it relevant to also learn more about the quality of service delivery of SASSA. An interview was conducted with the customer care manager. SASSA has implemented an internal Monitoring, Evaluation and Review Process (MER) that is facilitated by the Grant Administration Department. SASSA makes use of a prescribed Customer Satisfaction Survey to remain continuously aware of the needs of their customers and where services can be improved. SASSA makes use of external stakeholders to monitor its services and the Black Sash is presently conducting an assessment of SASSA to determine the level of quality in respect of its services rendered to customers. SASSA has a Customer Charter that incorporates the minimum service delivery standards. SASSA also encourages customers to raise their comments pertaining to the quality of services in the suggestion boxes available at all SASSA contact points. The Customer Care Framework of SASSA is currently being rolled out in the region.

In respect of complaints, SASSA has to respond within 48 hours of receipt of a complaint. SASSA also conducts citizen and stakeholder dialogues to create awareness of the complaints procedure and the information obtained informs the Management Information System for appropriate corrective intervention. The majority of the complaints are in respect of delays with payment of grants, clarification about grant processes and issues pertaining to policy shifts, and to a lesser extent complaints about poor treatment by personnel and telephones that are not promptly answered.

The local offices are accountable to the regional office and submit a monthly statistical database and intake registers. The information on customers is captured on SOCPEN.

SASSA has implemented a system called the Improved Grant Administration Programme (IGAP). This programme guarantees that SASSA will provide a decision on the same day when an application is submitted at a local office and within a 10-day turnaround time. SASSA utilises the platforms of the citizen dialogue sessions and daily information sessions to inform customers about its website. The Customer Care Manager is of the opinion that access to the internet is not always available, despite community internet cafés. SASSA regards the provision of automated services as part of its strategy in the future.

In respect of customer satisfaction, 80% of all customers indicated that the service delivery of SASSA is good while an average percentage of 20% were indicated that the agency renders poor services. The general reasons for the dissatisfaction of grant recipients were that they had to pay more than two to three visits to the office to finalise a grant application. Other reasons include the machines not being functional, which delayed the grant payments.

7.3 Recommendations

Measures that can be put in place to improve the readiness of the SASSA Western Cape Regional Office for e-government

A limitation of this research study is the fact that m-government for SASSA was not extensively explored. The customers of SASSA in the Gauteng province have already expressed their need for electronic services. The SASSA Western Cape Regional Office needs to conduct a research study on a larger scale to determine the needs among its customers in respect of e-services and m-services.

The SASSA Western Cape Regional Office should use the e-readiness assessment model presented by Al-Omari and Al-Omari (2006:841) to ensure that the building blocks are in place before the implementation of e-services. The National e-Government Roadmap (EGRM) developed by Ernst and Young India can be used as a guideline, since this is a very comprehensive document in respect of the implementation of e-governance. The agency can first conduct an e-readiness assessment to determine the

needs and expectations of its stakeholders. Thereafter the agency needs to develop the vision, goals and guidelines that it will follow to implement e-governance. It is also important to develop an e-government strategy for the implementation of e-governance. It is also advisable to develop a Capacity Building Roadmap, as the government of India did to ensure the successful implementation of e-governance.

GeoSINC International (2002:6) suggests that a comprehensive action plan should be compiled. SASSA should undertake a complete e-readiness implementation process that consists of three (3) main phases, usually undertaken sequentially: phase 1 – assessment; phase 2 – development of a strategy and preparation of an action plan; and phase 3 – the execution of the action plan. SASSA can also determine whether the e-government capability maturity assessment framework of Oyomno (2004) has been implemented to determine the level of maturity of the agency.

The agency also needs to explore the option of addressing enquiries online as well as processing transactions electronically. Should SASSA decide on both e-services and m-services, it should market these electronic services extensively among its customers as well as educating them on their utilisation. The research study indicated that SASSA customers have an interest in communicating through SMS in respect of announcements or confirmations. SASSA also needs to implement strict measures to safeguard e-services and m-services, should the agency provide electronic transactions, to ensure the confidentiality of the personal information of customers. Further studies could be done on the need for mobile wireless technology (MWT) or mobile services as well as the implementation thereof for both customers and employees of SASSA.

SARS is one of the leading organisations in South Africa that has successfully transitioned to adopting electronic services and continuously updates its services to the advantage of its customers. SASSA could approach SARS in order to improve its own systems, or learn from the experiences of this organisation. The International Social

Security Association can also be consulted on the implementation of e-government and social security systems in general.

7.4 Conclusion

SASSA has a sustainable ICT infrastructure in place which provides excellent opportunities for electronic service delivery to its customers. The researcher is of the opinion that, from the sample taken from three grant types, there is a need for electronic services among SASSA customers. The participants receiving child-support and disability grants were more in favour of receiving their grants through the bank, with a limited number of older persons being in favour thereof. It was interesting to find that the majority of the participants are in favour of receiving notification and information via SMS Mobile Services (m-services) and not so keen on internet services. The researcher is of the opinion that this could be due to their limited skills in computer literacy and awareness about the internet. The fact that the majority of the CSG recipients are aware and willing to utilise internet services, provides a good starting point for SASSA should the agency consider providing electronic services. The researcher believes in providing people with the opportunity to choose for themselves. Should SASSA implement electronic services, the customers would still have the choice to either consult their offices or access online services of the agency. This would be a big step for the agency to take in the light of e-government.

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APPENDICES

APPENDIX A: EIU e-Readiness rankings and scores, 2009

| 2009 rank (out of 70) | 2008 rank | C Country | 2009 score (of 10) | 2008 score |
|--------------------------|--------------|----------------|-----------------------|---------------|
| 1 | 5 | Denmark | 8.87 | 8.83 |
| 2 | 3 | Sweden | 8.67 | 8.85 |
| 3 | 7 | Netherlands | 8.64 | 8.74 |
| 4 | 11 | Norway | 8.62 | 8.60 |
| 5 | 1 | United States | 8.60 | 8.95 |
| 6 | 4 | Australia | 8.45 | 8.83 |
| 7 | 6 | Singapore | 8.35 | 8.74 |
| 8 | 2 | Hong Kong | 8.33 | 8.91 |
| 9 | 12 | Canada | 8.33 | 8.49 |
| 10 | 13 | Finland | 8.30 | 8.42 |
| 11 | 16 | New Zealand | 8.21 | 8.28 |
| 12 | 9 | Switzerland | 8.15 | 8.67 |
| 13 | 8 | United Kingdom | 8.14 | 8.68 |
| 14 | 10 | Austria | 8.02 | 8.63 |
| 15 | 22 | France | 7.89 | 7.92 |
| 16 | 19 | Taiwan | 7.86 | 8.05 |
| 17 | 14 | Germany | 7.85 | 8.39 |
| 18 | 21 | Ireland | 7.84 | 8.03 |
| 19 | 15 | South Korea | 7.81 | 8.34 |
| 20 | 20 | Belgium | 7.71 | 8.04 |
| 21 | 17 | Bermuda | 7.71 | 8.22 |
| 22 | 18 | Japan | 7.69 | 8.08 |
| 23 | 23 | Malta | 7.46 | 7.78 |
| 24 | 28 | Estonia | 7.28 | 7.10 |
| 25 | 26 | Spain | 7.24 | 7.46 |
| 26 | 25 | Italy | 7.09 | 7.55 |
| 27 | 24 | Israel | 7.09 | 7.61 |
| 28 | 27 | Portugal | 6.86 | 7.38 |
| 29 | 29 | Slovenia | 6.63 | 6.93 |
| 30 | 32 | Chile | 6.49 | 6.57 |
| 31 | 31 | Czech Republic | 6.46 | 6.68 |

| 2009 rank (out of 70) | 2008 rank | C Country | 2009 score (of 10) | 2008 score |
|----------------------------------|----------------------|----------------------|-------------------------------|-----------------------|
| 32 | 38 | Lithuania | 6.34 | 6.03 |
| 33 | 30 | Greece | 6.33 | 6.72 |
| 34 | 35 | United Arab Emirates | 6.12 | 6.09 |
| 35 | 33 | Hungary | 6.04 | 6.30 |
| 36 | 36 | Slovakia | 6.02 | 6.06 |
| 37 | 37 | Latvia | 5.97 | 6.03 |
| 38 | 34 | Malaysia | 5.87 | 6.16 |
| 39 | 41 | Poland | 5.80 | 5.83 |
| 40 | 40 | Mexico | 5.73 | 5.88 |
| 41 | 39 | South Africa | 5.68 | 5.95 |
| 42 | 42 | Brazil | 5.42 | 5.65 |
| 43 | 43 | Turkey | 5.34 | 5.64 |
| 44 | 49 | Jamaica | 5.33 | 5.17 |
| 45 | 44 | Argentina | 5.25 | 5.56 |
| 46 | 50 | Trinidad & Tobago | 5.14 | 5.07 |
| 47 | 48 | Bulgaria | 5.11 | 5.19 |
| 48 | 45 | Romania | 5.07 | 5.46 |
| 49 | 47 | Thailand | 5.00 | 5.22 |
| 50 | 53 | Jordan | 4.92 | 5.03 |
| 51 | 46 | Saudi Arabia | 4.88 | 5.23 |
| 52 | 58 | Colombia | 4.84 | 4.71 |
| 53 | 51 | Peru | 4.75 | 5.07 |
| 54 | 55 | Philippines | 4.58 | 4.90 |
| 55 | 52 | Venezuela | 4.40 | 5.06 |
| 56 | 56 | China | 4.33 | 4.85 |
| 57 | 57 | Egypt | 4.33 | 4.81 |
| 58 | 54 | India | 4.17 | 4.96 |
| 59 | 59 | Russia | 3.98 | 4.42 |
| 60 | 63 | Ecuador | 3.97 | 4.17 |
| 61 | 62 | Nigeria | 3.89 | 4.25 |
| 62 | 61 | Ukraine | 3.85 | 4.31 |
| 63 | 60 | Sri Lanka | 3.85 | 4.35 |
| 64 | 65 | Vietnam | 3.80 | 4.03 |
| 65 | 68 | Indonesia | 3.51 | 3.59 |

| | | | | |
|----|----|------------|------|------|
| 66 | 64 | Pakistan | 3.50 | 4.10 |
| 67 | 67 | Algeria | 3.46 | 3.61 |
| 68 | 70 | Iran | 3.43 | 3.18 |
| 69 | 66 | Kazakhstan | 3.31 | 3.89 |
| 70 | 69 | Azerbaijan | 2.97 | 3.29 |

Source: EIU (2009)

APPENDIX B: EIU Digital Economy Rankings 2010

| 2010 rank (of 70) | 2009 rank | country | 2010 score (of 10) | 2009 score |
|----------------------|-----------|----------------------|-----------------------|------------|
| 1 | 2 | Sweden | 8.49 | 8.67 |
| 2 | 1 | Denmark | 8.41 | 8.87 |
| 3 | 5 | United States | 8.41 | 8.60 |
| 4 | 10 | Finland | 8.36 | 8.30 |
| 5 | 3 | Netherlands | 8.36 | 8.64 |
| 6 | 4 | Norway | 8.24 | 8.62 |
| 7 | 8 | Hong Kong | 8.22 | 8.33 |
| 8 | 7 | Singapore | 8.22 | 8.35 |
| 9 | 6 | Australia | 8.21 | 8.45 |
| 10 | 11 | New Zealand | 8.07 | 8.21 |
| 11 | 9 | Canada | 8.05 | 8.33 |
| 12 | 16 | Taiwan | 7.99 | 7.86 |
| 13 | 19 | South Korea | 7.94 | 7.81 |
| 14 | 13 | United Kingdom | 7.89 | 8.14 |
| 15 | 14 | Austria | 7.88 | 8.02 |
| 16 | 22 | Japan | 7.85 | 7.69 |
| 17 | 18 | Ireland | 7.82 | 7.84 |
| 18 | 17 | Germany | 7.80 | 7.85 |
| 19 | 12 | Switzerland | 7.72 | 8.15 |
| 20 | 15 | France | 7.67 | 7.89 |
| 21 | 20 | Belgium | 7.52 | 7.71 |
| 22 | 21 | Bermuda | 7.47 | 7.71 |
| 23 | 23 | Malta | 7.32 | 7.46 |
| 24 | 25 | Spain | 7.31 | 7.24 |
| 25 | 24 | Estonia | 7.06 | 7.28 |
| 26 | 27 | Israel | 6.96 | 7.09 |
| 27 | 26 | Italy | 6.92 | 7.09 |
| 28 | 28 | Portugal | 6.90 | 6.86 |
| 29 | 29 | Slovenia | 6.81 | 6.63 |
| 30 | 30 | Chile | 6.39 | 6.49 |
| 31 | 31 | Czech Republic | 6.29 | 6.46 |
| 32 | 34 | United Arab Emirates | 6.25 | 6.12 |

| | | | | |
|----|----|-------------------|------|------|
| 33 | 33 | Greece | 6.20 | 6.33 |
| 34 | 32 | Lithuania | 6.14 | 6.36 |
| 35 | 35 | Hungary | 6.06 | 6.04 |
| 36 | 38 | Malaysia | 5.93 | 5.87 |
| 37 | 37 | Latvia | 5.79 | 5.79 |
| 38 | 36 | Slovakia | 5.78 | 6.02 |
| 39 | 39 | Poland | 5.70 | 5.80 |
| 40 | 41 | South Africa | 5.61 | 5.68 |
| 41 | 40 | Mexico | 5.53 | 5.73 |
| 42 | 42 | Brazil | 5.27 | 5.42 |
| 43 | 43 | Turkey | 5.24 | 5.34 |
| 44 | 44 | Jamaica | 5.21 | 5.33 |
| 45 | 47 | Bulgaria | 5.05 | 5.11 |
| 46 | 45 | Argentina | 5.04 | 5.25 |
| 47 | 48 | Romania | 5.04 | 5.07 |
| 48 | 46 | Trinidad & Tobago | 4.98 | 5.14 |
| 49 | 49 | Thailand | 4.86 | 5.00 |
| 50 | 52 | Colombia | 4.81 | 4.84 |
| 51 | 50 | Jordan | 4.76 | 4.92 |
| 52 | 51 | Saudi Arabia | 4.75 | 4.88 |
| 53 | 53 | Peru | 4.66 | 4.75 |
| 54 | 54 | Philippines | 4.47 | 4.58 |
| 55 | 55 | Venezuela | 4.34 | 4.40 |
| 56 | 56 | China | 4.28 | 4.33 |
| 57 | 57 | Egypt | 4.21 | 4.33 |
| 58 | 58 | India | 4.11 | 4.17 |
| 59 | 59 | Russia | 3.97 | 3.98 |
| 60 | 60 | Ecuador | 3.90 | 3.97 |
| 61 | 61 | Nigeria | 3.88 | 3.89 |
| 62 | 64 | Vietnam | 3.87 | 3.80 |
| 63 | 63 | Sri Lanka | 3.81 | 3.85 |
| 64 | 62 | Ukraine | 3.66 | 3.85 |
| 65 | 65 | Indonesia | 3.60 | 3.51 |
| 66 | 66 | Pakistan | 3.55 | 3.50 |
| 67 | 69 | Kazakhstan | 3.44 | 3.31 |
| 68 | 67 | Algeria | 3.31 | 3.46 |

| | | | | |
|----|----|------------|------|------|
| 69 | 68 | Iran | 3.24 | 3.43 |
| 70 | 70 | Azerbaijan | 3.00 | 2.97 |

Source: EIU (2010)

APPENDIX C: Assessment tools

| | Tool | Questionnaire | Statistics | Best Practices | Historical Analysis |
|-----|--|---------------|------------|----------------|---------------------|
| 1. | CSSP | Y | Y | | |
| 2. | CID | Y | Y | | |
| 3. | APEC | Y | Y | | |
| 4. | WITSA | Y | Y | | |
| 5. | McConnell | | Y | Y | Y |
| 6. | Crenshaw & Robinson | | Y | | |
| 7. | CIDCM | | Y | Y | Y |
| 8. | Mosaic | Y | Y | Y | Y |
| 9. | USAID Case Studies | | Y | | Y |
| 10. | SIDA Case Studies | Y | Y | | |
| 11. | ASEAN | | Y | | |
| 12. | EIU | | Y | | |
| 13. | SIBIS | Y | Y | | |
| 14. | Metric-Net | | Y | | |
| 15. | KAM | | Y | | |
| 16. | ISI | | Y | | |
| 17. | NRI | Y | Y | | |
| 18. | III | | Y | | |
| 19. | GI | | Y | | |
| 20. | WTI | Y | Y | | |
| 21. | Kenny's | | Y | | |
| 22. | DAI | | Y | | |
| 23. | Orbicom | | Y | | |
| 24. | infoDev's CDG assessments | * | Y | * | * |
| 25. | infoDev's e-readiness initiative assessments | * | Y | * | * |
| 26. | Digital Divide Reports | * | * | * | * |
| 27. | Position Papers | * | * | * | * |

Source: Bridges.org (2005)

APPENDIX D: Internet Usage and Statistics for Africa

| INTERNET USERS AND POPULATION STATISTICS FOR AFRICA | | | | | | |
|---|------------------------|-----------------|-----------------------------|----------------------------|------------------------|------------------|
| AFRICA REGION | Population (2010 Est.) | Pop. % in World | Internet Users, Latest Data | Penetration (% Population) | Use Growth (2000-2010) | % Users in World |
| Total for Africa | 1,013,779,050 | 14.8 % | 110,931,700 | 10.9 % | 2,357.3 % | 5.6 % |
| Rest of World | 5,831,830,910 | 85.2 % | 1,855,583,116 | 31.8 % | 420.5 % | 94.4 % |
| WORLD TOTAL | 6,845,609,960 | 100.0 % | 1,966,514,816 | 28.7 % | 444.6 % | 100.0 % |

NOTES: (1) Internet Usage and Population Statistics for Africa are for June 30, 2010. (2) CLICK on each region for detailed data for individual regions. For help and definitions see the site surfing guide. (3) Population numbers are based on figures from the U.S. Census Bureau. (4) The Internet usage numbers come mainly from data published by Nielsen Online , ITU, WWW, and other trustworthy local sources. (5) Data from this table may be cited, giving the due credit and establishing an active link back to Internetworldstats.com. Copyright © 2010, Miniwatts Marketing Group. All rights reserved.

| INTERNET USAGE STATISTICS FOR AFRICA | | | | | | |
|--------------------------------------|------------------------|-------------------------|----------------------------|----------------------------|-------------------------|-------------------|
| AFRICA | Population (2010 Est.) | Internet Users Dec/2000 | Internet Users Latest Data | Penetration (% Population) | User Growth (2000-2010) | % Users in Africa |
| Algeria | 34,586,184 | 50,000 | 4,700,000 | 13.6 % | 9,300.0 % | 4.3 % |
| Angola | 13,068,161 | 30,000 | 607,400 | 4.6 % | 1,924.7 % | 0.5 % |
| Benin | 9,056,010 | 15,000 | 200,000 | 2.2 % | 1,233.3 % | 0.2 % |
| Botswana | 2,029,307 | 15,000 | 120,000 | 5.9 % | 700.0 % | 0.1 % |
| Burkina Faso | 16,241,811 | 10,000 | 178,200 | 1.1 % | 1,682.0 % | 0.2 % |
| Burundi | 9,863,117 | 3,000 | 65,000 | 0.7 % | 2,066.7 % | 0.1 % |
| Cameroon | 19,294,149 | 20,000 | 750,000 | 3.9 % | 3,650.0 % | 0.7 % |
| Cape Verde | 508,659 | 8,000 | 150,000 | 29.5 % | 1,775.0 % | 0.1 % |
| Central African Rep. | 4,844,927 | 1,500 | 22,600 | 0.5 % | 1,406.7 % | 0.0 % |
| Chad | 10,543,464 | 1,000 | 187,800 | 1.8 % | 18,680.0 % | 0.2 % |
| Comoros | 773,407 | 1,500 | 24,300 | 3.1 % | 1,520.0 % | 0.0 % |
| Congo | 4,125,916 | 500 | 245,200 | 5.9 % | 48,940.0 % | 0.2 % |
| Congo, Dem. Rep. | 70,916,439 | 500 | 365,000 | 0.5 % | 72,900.0 % | 0.3 % |
| Cote d'Ivoire | 21,058,798 | 40,000 | 968,000 | 4.6 % | 2,320.0 % | 0.9 % |
| Djibouti | 740,528 | 1,400 | 25,900 | 3.5 % | 1,750.0 % | 0.0 % |
| Egypt | 80,471,869 | 450,000 | 17,060,000 | 21.2 % | 3,691.1 % | 15.4 % |
| Equatorial Guinea | 650,702 | 500 | 14,400 | 2.2 % | 2,780.0 % | 0.0 % |
| Eritrea | 5,792,984 | 5,000 | 250,000 | 4.3 % | 4,900.0 % | 0.2 % |
| Ethiopia | 88,013,491 | 10,000 | 445,400 | 0.5 % | 4,354.0 % | 0.4 % |
| Gabon | 1,545,255 | 15,000 | 98,800 | 6.4 % | 558.7 % | 0.1 % |
| Gambia | 1,824,158 | 4,000 | 130,100 | 7.1 % | 3,152.5 % | 0.1 % |

| | | | | | | |
|---------------------|---------------|-----------|-------------|--------|------------|---------|
| Ghana | 24,339,838 | 30,000 | 1,297,000 | 5.3 % | 4,223.3 % | 1.2 % |
| Guinea | 10,324,025 | 8,000 | 95,000 | 0.9 % | 1,087.5 % | 0.1 % |
| Guinea-Bissau | 1,565,126 | 1,500 | 37,100 | 2.4 % | 2,373.3 % | 0.0 % |
| Kenya | 40,046,566 | 200,000 | 3,995,500 | 10.0 % | 1,897.8 % | 3.6 % |
| Lesotho | 1,919,552 | 4,000 | 76,800 | 4.0 % | 1,820.0 % | 0.1 % |
| Liberia | 3,685,076 | 500 | 20,000 | 0.5 % | 3,900.0 % | 0.0 % |
| Libya | 6,461,454 | 10,000 | 353,900 | 5.5 % | 3,439.0 % | 0.3 % |
| Madagascar | 21,281,844 | 30,000 | 320,000 | 1.5 % | 966.7 % | 0.3 % |
| Malawi | 15,447,500 | 15,000 | 716,400 | 4.6 % | 4,676.0 % | 0.6 % |
| Mali | 13,796,354 | 18,800 | 250,000 | 1.8 % | 1,229.8 % | 0.2 % |
| Mauritania | 3,205,060 | 5,000 | 75,000 | 2.3 % | 1,400.0 % | 0.1 % |
| Mauritius | 1,294,104 | 87,000 | 290,000 | 22.4 % | 233.3 % | 0.3 % |
| Mayotte (FR) | 231,139 | --- | --- | --- | --- | 0.0 % |
| Morocco | 31,627,428 | 100,000 | 10,442,500 | 33.0 % | 10,342.5 % | 9.4 % |
| Mozambique | 22,061,451 | 30,000 | 612,500 | 2.8 % | 1,941.7 % | 0.6 % |
| Namibia | 2,128,471 | 30,000 | 127,500 | 6.0 % | 325.0 % | 0.1 % |
| Niger | 15,878,271 | 5,000 | 115,900 | 0.7 % | 2,218.0 % | 0.1 % |
| Nigeria | 152,217,341 | 200,000 | 43,982,200 | 28.9 % | 21,891.1 % | 39.6 % |
| Reunion (FR) | 822,986 | 130,000 | 300,000 | 36.5 % | 130.8 % | 0.3 % |
| Rwanda | 11,055,976 | 5,000 | 450,000 | 4.1 % | 8,900.0 % | 0.4 % |
| Saint Helena (UK) | 7,670 | n/a | 800 | 10.4 % | n/a | 0.0 % |
| Sao Tome & Principe | 175,808 | 6,500 | 26,700 | 15.2 % | 310.8 % | 0.0 % |
| Senegal | 14,086,103 | 40,000 | 923,000 | 6.6 % | 2,207.5 % | 0.8 % |
| Seychelles | 88,340 | 6,000 | 33,900 | 38.4 % | 465.0 % | 0.0 % |
| Sierra Leone | 5,245,695 | 5,000 | 14,900 | 0.3 % | 198.0 % | 0.0 % |
| Somalia | 10,112,453 | 200 | 106,000 | 1.0 % | 52,900.0 % | 0.1 % |
| South Africa | 49,109,107 | 2,400,000 | 5,300,000 | 10.8 % | 120.8 % | 4.8 % |
| Sudan | 41,980,182 | 30,000 | 4,200,000 | 10.0 % | 13,900.0 % | 3.8 % |
| Swaziland | 1,354,051 | 10,000 | 90,000 | 6.6 % | 800.0 % | 0.1 % |
| Tanzania | 41,892,895 | 115,000 | 676,000 | 1.6 % | 487.8 % | 0.6 % |
| Togo | 6,199,841 | 100,000 | 356,300 | 5.7 % | 256.3 % | 0.3 % |
| Tunisia | 10,589,025 | 100,000 | 3,600,000 | 34.0 % | 3,500.0 % | 3.2 % |
| Uganda | 33,398,682 | 40,000 | 3,200,000 | 9.6 % | 7,900.0 % | 2.9 % |
| Western Sahara | 491,519 | --- | --- | --- | --- | 0.0 % |
| Zambia | 12,056,923 | 20,000 | 816,700 | 6.8 % | 3,983.5 % | 0.7 % |
| Zimbabwe | 11,651,858 | 50,000 | 1,422,000 | 12.2 % | 2,744.0 % | 1.3 % |
| TOTAL AFRICA | 1,013,779,050 | 4,514,400 | 110,931,700 | 10.9 % | 2,357.3 % | 100.0 % |

Source: Internet World Stats.com (2010)

APPENDIX E. e-Readiness Questionnaire for SASSA ICT Manager

Objective - The objective of the questionnaire is to assess the current state of Departmental IT infrastructure, E-Governance as-is and challenges faced in implementation of e-Governance initiatives.

Distribution list – To be filled by the Nodal IT Officer of the Department or equivalent

Note –

- ❖ Please be as specific as possible in your answers.
- ❖ Please tick the circle wherever applicable.

- ❖ Please provide copies of the following list of documents for the Department –
 1. Annual Report (2008/09)
 2. Clients Charter
 3. IT Reports (Monthly evaluation or submissions)
 4. Any Consultancy/ assessment reports related to the IT Department/Section

- ❖ In case of any further clarifications kindly contact–

EmihyahDavids

021-4833920

Midavids@pgwc.gov.za

| | | |
|--|---------------------------|--|
| Department | | |
| | | |
| Contact Details (Nodal IT Officer or equivalent) | Name of Contact Person | |
| | Designation | |
| | Official Address | |
| | Telephone Number | |
| | Mobile Number | |
| | E-mail id | |

o I. Current state of Information technology (IT) Infrastructure at SASSA Western Cape

1. How would you categorize SASSA Regional Office Western Cape's IT infrastructure capabilities? (Please tick the applicable circle)

- No computers
- Few standalone computers used for word processing
- Few networked computers used only for email and maybe MIS
- Fully networked department with applications on central server in departmental
 - data centre
- Fully networked department with applications on central server in state data
 - centre

2.1 What are the allocated IT budgets for SASSA Western Cape Regional Office for the current year?

2.2 Has the allocated IT budget been fully utilized to your satisfaction, and if not, then why?

3. Is there an IT organization at SASSA Western Cape Regional Office?

- Yes
- No

4. How many IT trained staff (in numbers) are there at SASSA Western Cape Regional Office under the following categories? (In-house means staff employed in the department)

Category:

Number of trained IT staff (In-House)
Number of trained IT Staff (Outsourced)

- Only Basic Computer Email/ Word Users
- Advanced Computer Software Users

5.1 Is the management of the IT infrastructure of SASSA Western Cape Regional Office outsourced to a third party?

- Yes
- No
- Partly

5.2 If Yes, please provide the following details:

- Function
- In-House
- Outsourced

6. Does SASSA Western Cape Regional Office maintain a database of citizens in any form?

- Yes
- No
- Partly

7.1 Does SASSA Western Cape Regional Office have its own automated Management Information System (MIS)?

- Yes
- No

7.2 If YES then, please provide the following details -

Application Platform:

Database Platform:

8. How often are the websites of SASSA Western Cape Regional Office being updated?

II. Current level of E-Governance of the Department

9. List the current E-Government initiatives of SASSA Western Cape Regional Office and the function they perform

10. Are there any IT Security or Disaster Recovery/ Business Continuity Policy of SASSA Western Cape Regional Office?

- Yes
- No

11. WHAT are existing roadblocks in implementing IT/ E-Governance initiatives?

(Example:

- Internal Roadblocks - Lack of adequate manpower, State Policies/ Acts, Inter-departmental dependencies, Monitoring of schemes, Corruption, Accounting, Budgetary Allocation, etc;
- External Roadblocks - Funds/ Grants, GOI Policies/ Acts, Infrastructure, Delivery channels, Demand/ Supply mismatch, Relationships with other States, Role of NIC, and PPP models etc.)

○ Internal to SASSA:

○ External to SASSA:

APPENDIX F. Questionnaire for Customer Care Manager at SASSA Western Cape

1. How does SASSA conduct customer satisfaction surveys among customers?

2. 2.1 How does SASSA address complaints?
2.2 What are customers mostly complaining about?

3. Post the split with Department Social Development, what is your view regarding service delivery?

4. Does SASSA have systems in place to monitor the turnaround time from processing applications until the approval thereof?

5. Through which medium does SASSA get response from customers (e.g. suggestion box, telephonic contact etc.)?

6. Do the SASSA officials inform customers that they can access information pertaining to the grant application on the website of SASSA?
 - 6.1 Is SASSA at present in respect of storing and sharing of information?
 - 6.2 Has SASSA considered electronic service delivery?

APPENDIX G. Questionnaire for SASSA Customers

1. What type of grant are you receiving? Please tick off:
 - a. Grant for Older Persons
 - b. Disability Grant
 - c. Child Support Grant

2. How long have you been receiving a grant? E.g. years, months

- 3.1 Have you been previously employed? Yes No

- 3.2 If yes to the above question, for how long have you been previously employed?

4. What is your age?

5. Number of dependents

6. Do you have any grandchildren in your care and how many?

- 6.1 Any particular reason why they are living with you? E.g. parents passed away, etc

7. In which area / suburb do you live?

8. At which District Office or service point do you receive your monthly grant?

9. Did you know where to go to apply for a grant?
Yes No

10. Were you well informed in respect of the process to follow to apply for a grant?

- 11.a How long was the process of applying (e.g. hours, minutes)

- 11.b How long (e.g. days, months, years) did it take for your grant to be approved?

12. Please indicate how your grant was approved:

12.a Phone

12.b Post

12.c E-mail

13. Can you read and write?

Yes No

14. What is your highest qualification (e.g. Matriculated, Tertiary)?

15. Are you computer literate?

Yes No

16. Do you know what the internet entails?

Yes No

17. Have you ever utilised the internet?

Yes No

17. a If yes, do you use the computer or cellphone to access the internet?

18. Is there an internet café in your community

19. Have you been at an internet café to access information?

Yes No

20. Do you have an e-mail address?

Yes No

21. Are you aware that you can obtain information pertaining to SASSA and the types of grants available on the internet?

Yes No

22. Would you like to receive your grant in your bank account?

Yes No

23. Would you like SASSA to e-mail or sms you when your grant is paid?

E-mail Sms

24. Please indicate if you are in favour of applying for a grant online through the use of the internet or your cellphone?

25. How would you currently describe the services rendered by SASSA?

Poor

Good

Excellent

Please explain your finding

26. Are you satisfied with the services rendered by SASSA?

Yes No

27. How prompt are SASSA consultants in attending to queries:

Immediately

After a Few Hours

Longer than a Day

28. Would you like to lodge your queries via the internet?

Yes No