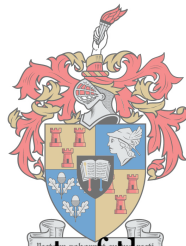


E-Government for Good Governance: Barriers to the Implementation of Digital Workflows in the Namibian Public Service

Sarah Iyaloo Negumbo



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Supervisor: Mr. Christiaan Maasdorp
Department of Information Science

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DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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SUMMARY

E-Government implementations aim to streamline the public service to essentially automate their processes, with the aim to improve service delivery to citizens and businesses. Digital workflows are one aspect of such streamlining by enabling workflow management with the help of computers, so allowing for fine-grained control over steps in work processes leading to consistency and error prevention, whilst at the same time allowing for measurement and reporting. Digital workflows promise to enable governments to accelerate service delivery, reduce costs and improve the quality of its services at all levels. However, the implementation of the digital workflows often fails to live up to this promise.

The thesis investigates the implementation of various digital workflows in various Government Offices, Ministries and Agencies (OMAs) in the Namibian Public Service. It describes how the Office of the Prime Minister, the Ministry of Finance, the Ministry of Information Communication and Technology, and the Office of the Auditor managed and implemented their e-government projects and applications.

The investigation was conducted through direct observation, document analysis and face-to-face interviews. The thesis aimed to determine how well digital workflow are embedded in the various e-government projects and applications, to what degree these digital workflows are used by the officials, and in particular whether digital signatures are used in the workflows. In addition, the thesis tries to outline the capacity and experience of the officials responsible for the implementation of the selected e-government projects to show what capacity challenges hinder full implementation in a developing country context like Namibia.

It is concluded that proper implementation and usage of the e-government digital workflows falls far short of its promise and at a cost of inefficiency and ineffectiveness towards service delivery. The thesis summarizes the status of digital workflows through the e-government projects and applications, highlights the elements from the context that stifled full implementation and makes recommendations of how to improve future implementations and practices for e-government projects in similar developing country contexts.

OPSOMMING

Die implementering van e-regering poog om die staatsdiens te vereenvoudig deur prosesse te outomatiseer ten einde dienslewering aan burgers en besighede te verbeter. Digitale werkstrome is een aspek van so 'n vaartbelyning deur werkstroombestuur met behulp van rekenaars moontlik te maak. Dit laat fyn beheer toe oor die stappe in werkprosesse wat op sy beurt lei tot konsekwentheid en foutvoorkoming, en laat terselfertyd monitering en verslagdoening toe. Digitale werkvloei beloof om regerings in staat te stel om dienslewering te versnel, koste te verminder en die gehalte van dienste op alle vlakke te verbeter. Die implementering van digitale werkvloei voldoen egter selde aan hierdie belofte.

Die tesis ondersoek die implementering van verskeie digitale werkvloei in verskeie Regeringskantore, Ministeries en Agentskappe in die Namibiese staatsdiens. Dit beskryf hoe die Kantoor van die Eerste Minister, die Ministerie van Finansies, die Ministerie van Inligtingskommunikasie en Tegnologie en die Kantoor van die Ouditeur hul e-regeringsprojekte en toepassings bestuur en implementeer het.

Die ondersoek is uitgevoer deur direkte waarneming, dokumentanalise en persoonlike onderhoude. Die tesis mik daarop om te bepaal hoe goed digitale werkvloei in die verskillende e-regeringsprojekte en toepassings ingebed is, in watter mate hierdie digitale werkstrome deur die amptenare gebruik word, en veral of digitale handtekeninge in die werkvloei gebruik word. Daarbenewens probeer die tesis die kapasiteit en ervaring van die amptenare wat verantwoordelik is vir die implementering van die geselekteerde e-regeringsprojekte omskryf om te wys watter kapasiteitsuitdagings volledige implementering in 'n ontwikkelende landskonteks soos Namibië belemmer.

Daar word tot die gevolgtrekking gekom dat die behoorlike implementering en gebruik van e-regering digitale werkstrome ver by sy belofte tekortskiet en dit teen die koste van ondoeltreffendheid en ondoeltreffendheid teenoor dienslewering. Die tesis gee 'n opsomming van die status van digitale werkvloei in die e-regering se projekte en toepassings. Die elemente uit die konteks wat die volle implementering belemmer het, word beklemtoon en aanbevelings gemaak oor hoe toekomstige implementerings en praktyke vir e-regeringsprojekte in soortgelyke ontwikkelende lande verbeter kon word.

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TABLE OF CONTENTS

1	Chapter 1: INTRODUCTION AND BACKGROUND	1
1.1	Introduction.....	1
1.2	Statement of the research problem	2
1.3	Research objectives	3
1.4	Research questions	3
1.5	Research Design and Interview questions	4
1.6	Delimitation of the study	5
1.7	Significance of the study.....	5
1.8	Limitation of the study	6
1.9	Definition of terms (unfamiliar terms)	6
1.10	Division of chapters	12
1.10.1	Chapter 1: Introduction and background	12
1.10.2	Chapter 2: Review of related literature.....	12
1.10.3	Chapter 3: Methods of study.....	12
1.10.4	Chapter 4: Presentation and analysis of data	13
1.10.5	Chapter 5: Conclusion and recommendations	13
1.11	Conclusion	13
2	Chapter 2: REVIEW OF RELATED LITERATURES	14
2.1	Introduction.....	14
2.2	Electronic Documents and Records Management System (EDRMS).....	16
2.2.1	Introduction	16
2.2.2	The benefits of implementing digital workflows & digital signatures through EDRMS	17
2.2.3	The challenges of implementing digital workflows & digital signatures through EDRMS	18
2.2.4	2.2.4 Conclusion.....	20
2.3	Human Capital Management System (HCMS).....	20
2.3.1	Introduction	20

2.3.2	The benefits of implementing digital workflows & digital signatures through HCMS	21
2.3.3	The challenges of implementing digital workflows & digital signatures through HCMS	22
2.3.4	Conclusion	23
2.4	Performance Management System (PMS)	24
2.4.1	Introduction	24
2.4.2	The benefits of implementing digital workflows & digital signatures through PMS	26
2.4.3	The challenges of implementing digital workflows & digital signatures through PMS	27
2.4.4	Conclusion	28
2.5	Integrated Financial Management System (IFMS)	29
2.5.1	Introduction	29
2.5.2	The benefits of implementing digital workflows & digital signatures through IFMS	30
2.5.3	The challenges of implementing digital workflows & digital signatures through IFMS	31
2.5.4	Conclusion	32
2.6	Other Researchers that looked into the challenges of implementing digital workflows & digital signatures through EDRMS, HCMS, PMS, and IFMS.	33
2.7	Conclusion	35
3	Chapter 3: METHODS OF STUDY	36
3.1	Introduction	36
3.2	Design of the study	36
3.2.1	Electronic Documents and Records Management System	37
3.2.2	Human Capital Management System	39
3.2.3	Performance Management System	40
3.2.4	Integrated Financial Management System	41
3.3	Methods used to gather the desired data	43
3.4	Population	44

3.5	Sample, sampling procedure and sample size	44
3.6	Research instrument	455
3.7	Reliability and validity of instrument	46
3.8	Administration of instrument	46
3.9	Method of data analysis	46
3.10	Research ethics	47
3.11	Conclusion	47
4	CHAPTER 4: PRESENTATION AND ANALYSIS OF DATA	48
4.1	Introduction.....	48
4.2	Classification of the data from the Office of the Prime Minister.....	48
4.2.1	Presentation and analysis of the data from the interviews	49
4.2.2	Age Group.....	49
4.2.3	Gender	50
4.2.4	Level of education	50
4.2.5	Job Titles	51
4.2.6	Number of years employed at the OPM.....	51
4.2.7	Explain the meaning of e-government concept and its benefits.....	52
4.2.8	Which of the 4 (EDRMS, HCMS, PMS and the IFMS) E-Government projects and/or applications is fully implemented and utilized in your OMAs?.....	54
4.2.9	Is any of the applications having embedded digital workflows and whether digital workflows are being used?.....	56
4.2.10	Explain what benefits digital workflows bring.....	57
4.2.11	Are any of these applications (EDRMS, HCMS, PMS, IFMS) using digital signatures?	58
4.2.12	Do you agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation?.....	59
4.2.13	What are the challenges encountered when implementing/using those applications.	60
4.2.14	What are the qualification levels of the officials spearheading the implementation of these applications and indicate whether they are capacitated to implement these projects/applications?	60

4.3	Classification of the data from the Ministry of Finance	61
4.3.1	Presentation and analysis of data from the interviews Section A: General information	61
4.3.2	Age Group.....	61
4.3.3	Gender	62
4.3.4	Level of education	63
4.3.5	Job Titles	63
4.3.6	Number of years employed at the Ministry of Finance.....	64
4.3.7	Explain the meaning of e-government concept and its benefits.....	64
4.3.8	Which of the 4 (EDRMS, HCMS, PMS and the IFMS) E-Government projects and/or applications is fully implemented and utilized in the Ministry of Finance?	66
4.3.9	Are any of the applications having embedded digital workflows and whether digital workflows are being used?.....	67
4.3.10	Explain what benefits digital workflows bring.	67
4.3.11	Are any of these applications (EDRMS, HCMS, PMS, IFMS) using digital signatures?	68
4.3.12	Do you agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation?.....	69
4.3.13	What are the challenges encountered when implementing/using those projects/applications.	70
4.3.14	What are the qualification levels of the officials spearheading the implementation of these applications and indicate whether they are capacitated to implement these projects/applications?	71
4.4	Classification of the data from the Ministry of Information Communication Technology.....	71
4.4.1	Presentation and analysis of data from the interviews	72
4.4.2	Age Group.....	72
4.4.3	Gender	73
4.4.4	Level of education	73
4.4.5	Job Titles	74
4.4.6	Number of years employed at the Ministry of Information & Communication Technology	74

4.4.7	Explain the meaning of e-government concept and its benefits.....	75
4.4.8	Which of the 4 (EDRMS, HCMS, PMS and the IFMS) E-Government projects and/or applications is fully implemented and utilized at MICT?.....	76
4.4.9	Is any of the applications having embedded digital workflows and whether digital workflows are being used?.....	77
4.4.10	Explain what benefits digital workflows bring.	77
4.4.11	Are any of these applications (EDRMS, HCMS, PMS, IFMS) using digital signatures?	78
4.4.12	Do you agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation?.....	79
4.4.13	What are the challenges encountered when implementing/using these applications.	80
4.4.14	What are the qualification levels of the officials spearheading the implementation of these applications and indicate whether they are capacitated to implement these projects/applications?	80
4.5	Classification of the data from the Office of the Auditor General	80
4.5.1	Presentation and analysis of data from the interviews	81
4.5.2	Age Group.....	81
4.5.3	Gender	81
4.5.4	Level of education	82
4.5.5	Job Titles	82
4.5.6	Number of years employed at the Office of the Auditor General.....	83
4.5.7	Explain the meaning of e-government concept and its benefits.....	83
4.5.8	Which of the 4 (EDRMS, HCMS, PMS and the IFMS) E-Government projects and/or applications is fully implemented and utilized in your OMAs?.....	84
4.5.9	Is any of the applications having embedded digital workflows and whether digital workflows are being used?.....	85
4.5.10	Explain what benefits digital workflows bring.	86
4.5.11	Are any of these applications (EDRMS, HCMS, PMS, IFMS) using digital signatures?	87
4.5.12	Do you agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation?.....	88

4.5.13	What are the challenges encountered when implementing/using these applications.	88
4.5.14	What are the qualification levels of the officials spearheading the implementation of these applications and indicate whether they are capacitated to implement these projects/applications?	89
4.5.15	Overall conclusion of the data analysis from all offices, ministries, and agencies	89
5	CHAPTER 5: CONCLUSION AND RECOMMENDATIONS	91
5.1	Introduction.....	91
5.2	Comparison of the projects in the Offices/Ministries	91
5.3	Conclusion	94
5.4	Recommendations	95
5.4.1	Recommendation 1.....	95
5.4.2	Recommendation 2	96
5.4.3	Recommendation 3	96
5.4.4	Recommendation 4	96
5.4.5	Recommendation 5	96
5.4.6	Recommendation 6	97
5.4.7	Recommendation 7	97
5.4.8	Recommendation 8.....	97
5.5	Suggestions for further studies	97
6.	References.....	99
7.	Annexure.....	107

LIST OF FIGURES

Figure 1: An indication regarding the age group of the officials from OPM.	49
Figure 2: An indication regarding the gender category of the officials from OPM.....	50
Figure 3: Responses regarding the level of education of the officials from OPM.	50
Figure 4: Responses regarding the Job Titles: OPM.	51
Figure 5: Responses regarding the number of years employed at the OPM.	51
Figure 6: Responses regarding the 4 E-Government projects and/or applications that are fully implemented and utilized in OPM.	54
Figure 7: Responses regarding the applications that are having embedded digital workflows and whether digital workflows are being used: OPM.	56
Figure 8: Responses regarding any of the applications that are using digital signatures: OPM..	58
Figure 9: Responses whether the officials agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation: OPM.	59
Figure 10: An indication regarding the age group of the officials from MOF.....	61
Figure 11: Responses regarding the gender category of the officials from MOF.	62
Figure 12: Responses regarding the level of education of the officials from MOF.	63
Figure 13: Responses regarding the Job Titles of the officials from the Ministry of Finance.	63
Figure 14: Responses regarding the number of years employed at the Ministry of Finance.	64
Figure 15: Responses regarding the 4 E-Government projects and/or applications that are fully implemented and utilized in the Ministry of Finance.	66
Figure 16: Responses regarding the applications that are having embedded digital workflows and whether digital workflows are being used: MOF.	67
Figure 17: Responses regarding any of the applications that are using digital signatures: MOF.	68
Figure 18: Responses whether the officials agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation: MOF.	69
Figure 19: The age group of the officials from the Ministry of Information & Communication Technology.....	72
Figure 20: Responses regarding the gender category: MICT.....	73
Figure 21: Responses regarding the level of education.	73

Figure 22: Responses regarding the Job Titles: MICT.....	74
Figure 23: Responses regarding the number of years employed at the Ministry of Information & Communication Technology.....	74
Figure 24: Responses regarding which of the 4 E-Government projects and/or applications is fully implemented and utilized in MICT?	76
Figure 25: Responses regarding whether any of the applications having embedded digital workflows and whether digital workflows are being used: MICT.	77
Figure 26: Responses regarding any of the applications that are using digital signatures: MICT.....	78
Figure 27: Responses whether the officials agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation: MICT.....	79
Figure 28: An indication regarding the age group of the officials from the Office of the Auditor General.	81
Figure 29: Responses regarding the gender category: OAG.....	81
Figure 30: Responses regarding the level of education: OAG.....	82
Figure 31: Responses regarding the job titles: OAG.....	82
Figure 32: Responses regarding the number of years employed at the Office of the Auditor General.....	83
Figure 33: Responses regarding which of the 4 E-Government projects and/or applications is fully implemented and utilized in your OMAs? Which projects and/or applications are not fully implemented in OAG.....	84
Figure 34: Responses regarding whether any of the applications are having embedded digital workflows and whether digital workflows are being used: OAG.....	85
Figure 35: Responses regarding any of the applications that are using digital signatures: OAG.....	87
Figure 36: Responses whether the officials agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation: OAG.....	88

ACRONYMS

BURS	: Botswana Unified Revenue Service
BPM	: Business Process Management
BPR	: Business Process Re-engineering
EDRMS	: Electronic Documents & Records Management System
ERP	: Enterprise Resource Planning
HCMS	: Human Capital Management System
ICTs	: Information and Communication Technologies
IFMS	: Integrated Financial Management System
IRMT	: International Records Management Trust
ISO	: International Standards Organization
MICT	: Ministry of Information & Communication technology
MOF	: Ministry of Finance
MOREQ	: Model Requirements for the Management of Electronic Records
NAMPA	: Namibia Press Agency
NSFAF	: Namibia Students Financial Assistance Fund
OAG	: Office of the Auditor General
OMAs	: Offices/Ministries/Agencies
OPM	: Office of the Prime Minister
PMS	: Performance Management System

1 Chapter 1: INTRODUCTION AND BACKGROUND

1.1 Introduction

The challenges towards the successful implementation of digital workflows through the e-government projects and/or applications are common practices worldwide. The Namibian government institutions are no exceptions. They are faced with multiple challenges and they have been criticized by the public in recent years, due to the lack of full implementation of the e-government projects and/or applications. Furthermore, the Namibian government has also been criticized for not rendering services efficiently and effectively to the citizens, in the absence of fully fledged e-government projects/applications.

The Government Offices, Ministries and Agencies (OMAs) of the Republic of Namibia are not yet fully using digital workflows. However, four e-government projects and/or applications with built-in workflows were initiated, namely; the Electronic Documents and Records Management System (EDRMS), the Human Capital Management System (HCMS), the Performance Management System (PMS) and the Integrated Financial Management System (IFMS). The aforementioned projects and/or applications are not fully implemented. Various complains from the public through the media are an indication that there is a need to improve the implementation and the usage of these e-government applications and processes in the Offices, Ministries, and Agencies (OMAs).

Kisting (2016:2) confirmed that the Namibia Students Financial Assistance Fund (NSFAF) has been in the media recently for failing to account for billions of dollars, for records of students which were incomplete in terms of auditing as well as for losing documents containing student debtors' information. He further indicated that the officials from NSFAF cited that the unfortunate situation occurred due to the relocating of their Office, and there were poor mechanisms to trace down the beneficiaries in the case of beneficiaries changing their residential address and contact details.

In keeping with Kisting's statement, the researcher is convinced that the Government needs to fully implement proper systems with digital workflows, so that Institutions such as NSFAF could utilize these built-in workflows, to capture and archive their records. Such processes will assist in managing records properly, to save time, to cut cost and to avoid delays. Furthermore, this process will also assist staff members in becoming more efficient and effective in conducting their businesses and accelerate service delivery between the government and its citizens.

1.2 Statement of the research problem

Heeks (2003:2) defined e-Government as the use of information and communication technologies (ICTs) to improve the activities of public sector organisations. In keeping with Heeks' statement, it can be said that e-government could be viewed as a 'subset of e-governance' and its focus is largely on improving administrative efficiency and reducing administrative corruption. This could be achieved once the government is committed to transforming its relationships with all of its stakeholders, by ensuring that there is a beneficial environment for all stakeholders to conduct their affairs freely.

Furthermore, Adam (2008: 20 & 85) defined workflow/digital workflow as a process which is referred to as Business Process Management (BPM) and it is used to manage the flow of information around an organisation and allows an organization to route electronic documents to different Departments and individuals depending on the particular work-related tasks that need to be undertaken concerning that document. In keeping with Adam's statement, it can be said that the process to route electronic documents around the organisations proved to have saved time and reduced delays. Previously, documents had to be printed out and transported to other Departments through a Driver, which was time consuming. Indeed, the introduction of routing electronic documents in organisations bears effective service delivery.

It is against this background; the stated problem is to establish the reasons why the Government of the Republic of Namibia struggles to fully implementing e-government projects and/or applications. Specifically the challenges of implementing digital workflows for the four components of applications, namely;

EDRMS, HCMS, PMS and the IFMS. If these applications are to be implemented successfully, end-users and stakeholders will be served efficiently and effectively. Therefore, this study aims to identify the gap created by the incomplete implementation of these e-government projects/applications.

1.3 Research objectives

The main objectives of this study are to investigate to what extent the e-government applications are implemented, taking into consideration the full implementation of digital workflows and the usage of digital signatures processes in the identified OMAs, and to highlight the challenges and complexities of full implementation. The specific sub-objectives are to:

- 1.3.1 Investigate whether the government officials fully understand the e-government concept and its purported benefits.
- 1.3.2 Investigate the extent to which four (4) selected e-government projects and/or applications are being implemented and utilized in their OMAs, namely; EDRMS, HCMS, PMS and the IFMS.
- 1.3.3 Investigate whether these applications have embedded digital workflows and whether digital workflows are being used.
- 1.3.4 Investigate whether the officials understand the proposed benefits of these digital workflows.
- 1.3.5 Investigate whether any of these applications are using digital signatures.
- 1.3.6 Investigate the extent to which officials believe that e-government projects are either never implemented fully or abandoned soon after implementation.
- 1.3.7 Investigate the challenges encountered during implementing and when using the selected applications.
- 1.3.8 Establish the qualification levels of the officials responsible for the implementation of these projects and/or applications to determine whether they have the capacity to spearhead the implementation process.

1.4 Research questions

The primary research question is what is the state of the e-government applications (particularly around digital workflows) in the Namibian Public Service? The

secondary research questions concern various projects and various contexts. Namely, what is the extent of the implementation of the EDRMS, HCMS, PMS and IFMS in the context of the Office of the Prime Minister, the Ministry of Finance, the Ministry of Information Communication & Technology, and the Office of the Auditor General? In addition, what elements in each context frustrated or enabled the implementations?

1.5 Research Design and Interview questions

The overall research questions were answered through direct observation, document analysis and face-to-face interviews in the Office, two Ministries, and one Agency. Through these methods it was determined whether the e-government projects and/or applications have embedded digital workflows, to what extent these digital workflows are used, and whether the usage includes digital signatures.

In addition to the literature review, observation, and document analysis, the data to answer the research questions derived from the following semi-structured questions posed to respondents:

- 1.4.1 Explain the meaning of the e-government concept and its benefits.
- 1.4.2 Which of the 4 (EDRMS, HCMS, PMS and the IFMS) e-government projects and/or applications is fully implemented and utilized in your OMAs?
- 1.4.3 Is any of these applications having embedded digital workflows and whether digital workflows are being used?
- 1.4.4 Explain what benefits digital workflows bring.
- 1.4.5 Are any of these applications (EDRMS, HCMS, PMS, IFMS) using digital signatures?
- 1.4.6 Do you agree/disagree that the e-government projects and/or applications are either never implemented fully or abandoned soon after implementation?
- 1.4.7 What are the challenges encountered when implementing and using e-government applications?
- 1.4.8 What are the qualification levels of the officials spearheading the implementation of these projects and/or applications and indicate whether they are capacitated to implement these projects and/or applications?

1.6 Delimitation of the study

Mitchell, Wirt, & Marshall, (1986:1) stated that the delimitations of the study are those characteristics that limit the scope (define the boundaries) of the inquiry as determined by the conscious exclusionary and inclusionary decisions that were made throughout the development of the proposal. Therefore, this research was delimited to the 4 identified OMAs of the Republic of Namibia in Windhoek only, namely; the Office of the Prime Minister, in particular the Departments responsible for the implementation of the following E-Government projects; the Electronic Documents and Records Management System, the Human Capital Management System, the Performance Management System, the Ministry of Finance as the custodian of the Integrated Financial Management System, the Ministry of Information Communication Technology as the custodian of government technologies and related laws and the Office of the Auditor General. Although the challenges of implementing e-government affect most of the OMAs, only 24 officials from the 4 identified OMAs in Windhoek were interviewed using the semi-structured questions. The study was conducted between September 2016 and March 2017.

1.7 Significance of the study

The research is significant, because, it supplemented efforts that were made by the International bodies such as the International Records Management Trust (IRMT), the World Bank, the United Nations, the International Standards Organization (ISO) and the Model Requirements for the Management of Electronic Records (Moreq), specifically on the issues regarding proper implementation of e-government projects, to promote good governance in the public sector.

Furthermore; there are lots of case studies carried out by individual professionals in the area of e-governance, e-government, workflows, digital signatures, its successes and its challenges. Therefore, the research will inform the Government about the vital steps to be taken further, in order to emerge victorious when implementing e-government projects/applications.

The significance of this research is that it produced measurements to be implemented in order to add value to the successful implementation of e-government projects/applications, improve service delivery between Offices, improve service delivery between the government and its citizen's and also rendering effective collaboration with other institutions worldwide. Therefore, the research topic is very relevant, not only to the Offices, Ministries, and Agencies but to the private sectors and non-governmental organizations. They are also bound to benefit from this study, since the entire country came short in terms of implementing workflows and digital signatures.

1.8 Limitation of the study

It is noted in most of the research studies, that there are always assured limitations and weakness. Therefore, this study also carried some limitations and weakness. Firstly it was limited to the 4 Government Offices, Ministries and Agencies in Windhoek only. Secondly, the research study also did not assess the status of e-government projects and/or applications in the Private Sectors. Therefore, the findings and the results cannot be generalized to other government Ministries, Offices and Agencies in the Regions and in the Private Sectors. In order to make a general conclusion regarding the implementation of digital workflows and the usage of digital signatures, various case studies would need to be carried out. Such a processes would allow a more precise account of significance outcomes of government institutions. Despite this limitation, the study generated valuable data and information that added value to the field of e-government and the implementation of digital workflows and digital signatures in Namibia.

1.9 Definition of terms (unfamiliar terms)

To provide an understanding of the terminology used in this study, a number of definitions have been adopted because the researcher agreed with these definitions and they also fit within the context of this research.

- a) Business Process Re-engineering (BPR):** Adam (2008:235) refers to Business Process Re-engineering as the improvements that can be made to an organization's processes in terms of making the process more efficient to the organization. In keeping with Adam's statement, the demonstration would be

of the commercial Bank that would analyze their new account opening process and then by using Business Process Re-engineering methods they could see how the organization can improve the efficiency of that process.

- b) Governance:** The World Bank (1992:1) defined governance as the manner in which the power is being exercised in the management of a country's economic and social resources for its development. Furthermore, Deva (2005:1) explained that governance is the outcome of the interaction of government, the public service, and the citizens throughout the political process, policy development, programme design, and service delivery. In keeping with the above mentioned authors, it can be said that governments are advocating the process of interacting with its citizens through having representatives in the regions and through centralizing some of the services, with the aim of rendering better services.
- c) Good governance:** Madon (2009:46) defined good governance as a form of governance that embodies certain ideals including participation, transparency, accountability, responsiveness, efficiency, equity and consensus-orientation. In keeping with Madon, what could be said is that, engaging the citizens promotes the feeling of belonging to the country and promotes ownership which would enhance all citizens to make a contribution towards the development of the country.
- d) E-Governance:** Backus (2001:4) explained a large number of development interventions, endorsed and supported by the international development community are peddled under the banner of e-government. These have in common a focus on the role of Information Communication technologies (ICTs) for enhancing the efficiency, accessibility and democratic accountability of public administration and collective decision-making. In keeping with Backus, the usage of the ICTs enhances service delivery and prevents the citizens from standing in long queues waiting to access services whenever they desire to access them.
- e) E-Government/electronic government:** Heeks (2003:2) defined e-Government as the use of Information and Communication Technologies

(ICTs) to improve the activities of public sector organisations. In keeping with Heeks' statement, it can be said that e-government projects and/or applications should make use of ICTs, and the main focus should be largely on improving administrative efficiency and reducing administrative corruption.

f) Workflow/digital workflow: Adam (2008: 20 & 85) defined workflow as the process which is also referred to as the Business Process Management (BPM) and it is used to manage the flow of information around an organization and allows an organization to route electronic documents around the organization to different Departments and individuals depending on the particular work-related tasks that need to be undertaken concerning that document. In keeping with Adam, it can be said that the introduction of workflows allowed organisations to realize improvements in efficiency and ensure that their products and services are consistently of high quality. Furthermore, the Beijing CSSCA Software Technology cc (2014:2) stated that a workflow is an arranged and repeated pattern of business activities enabled by the systematic organization of resources into processes that transform materials, provide services and enable the processing of information. Since the Department of Public Service Information Technology Management in the Office of the Prime Minister already implemented EDRMS, there is a great opportunity to use the same platform and introduce the workflow-driven application, whereby, they will identify a work process and then automate it. The issuance of correspondence letters and reports could be managed through a workflow, for instance, letters and reports will be drafted by the first drafter, and it can be traced on the system by the second drafter until it reaches the last person to finalize it. Because, as of now the letters are being forwarded through e-mails back and forth and it is difficult to trace the first version of the letters.

g) Digital divide: Wattal et al (2001:30) defined digital divide as the gap between people with effective access to digital Information and Communications Technology and those with very limited to access to Information Communication Technology. In keeping with Wattal et al, it can be said that the adoption of technology by individual citizens and the

government Offices, Ministries, and Agencies in developing countries is very slow; hence it will take time to close digital divide gap.

- h) Digital signature:** Youd (1996:1) explained digital signature as the process to be based on cryptography, which uses mathematical formulas, to scramble messages, using encryption and decryption software. The author elaborated that the sender could scramble the message and the recipient could unscramble it. To affix a digital signature to an electronic document, a signer must obtain the electronic “key”. The keys are assigned in pairs, namely the private key and the public key. In keeping with Youd, it can be said that the features of digital signature demonstrates the sense of security and trusted system, which will enables users to prevent forgery and corruption.
- i) Audit trail:** The Computer Language Company Inc. (1981:1) defines audit trail as a record of transactions in an information system that provides verification of the activity of the system. In keeping with the Computer Language Company Inc statement, it can be said that the audit trail keeps track of all operations, because, the system record the history of every transaction initiated. Furthermore, it can be said that the built-in audit trail in all systems is a greater enabler of identifying illegal operations in systems and also helps to monitor work progress as well as identify bottlenecks and address them speedily.
- j) Business Performance Management:** Patton, (2010:24) defined Business Performance Management as a process that encompasses all the processes, information, and systems used by managers to set strategy, develop plans, monitor execution, forecast performance, report results, and make decisions. In keeping with Patton’s statement, it can be said that since the definition places emphasis on aggregation of the available information, organisations would be in a better positions to make informed decisions and function effectively once they fully utilize the Business Performance Management processes.
- k) Performance Management:** Armstrong, (2015:1) defined Performance Management as the continuous process of improving performance by setting

individual and team goals which are aligned to the strategic goals of the organization, planning performance to achieve the goals, reviewing and assessing progress, and developing the knowledge, skills and abilities of people. Given the aforementioned statement by Armstrong, it can be stated that enforcing strategic performance management will increase the effectiveness of the organisations by improving the performance of the workers and by developing the capabilities of the team as well as individual efforts.

- l) **Performance Management System:** The Office of the Prime Minister (2005) defines Performance Management as the ongoing systematic process by which institution involves employees, as individual and members of a group, in improving institutional effectiveness in the accomplishment of the institution mission and vision. Further on, the OPM emphasized that the Performance Management System is the system that facilitate the attainment of the individual and corporate goals, enables one to track and monitor the performance of individual employees, Departments and the organization overall. The system is often based on organizational and job specific competencies which need to be obtained for successful job performance. Based on the OPM's explanation of the Performance Management System, it can be said that the term is advocating for the institution to continuously keep on engaging the employees throughout the year, whether to compile new Performance Agreements, review them, appraise the employees accordingly and most importantly, to coach them all the way.

- m) **Electronic Documents & Records Management Systems:** The National Archives of Australia (2017:1) defined the Electronic Documents & Records Management Systems as the automated software application designed to assist one with the creation, management, use, storage and disposal of information and records. The EDRMS may also automate business processes such as workflows and approvals, and be integrated with other business systems. In keeping with the National Archives of Australia, it can be stated that organisations could manage the complete life-cycle of manual and

electronic records from the creation to destruction and at the same time keeping integrity, authenticity and accessibility of the organization's records.

n) Human Capital Management/System: Curtis, Hefley, & Miller (2010:580) defined Human Capital Management as an approach to people management or rather workforce management that treats it as a high-level strategic issue and seeks systematically to analyze, measure, and evaluate how workforce policies and practices contribute to value creation. They further indicated that the Human Capital Management System is the term coupled with the integration software both for employee records, to manage benefits administration and payroll and in most cases also mapping out the succession planning. In keeping with the above authors, it can be said that once a Human Capital Management System is properly implemented, it could be of great assistance with e-recruitment, performance management and compensation management, compared to the manual processes which are cumbersome to execute.

o) Integrated Financial Management System: The Namibia Press Agency (NAMPA) (2006) applauded the then Finance Minister, Honourable Saara Kuugongelwa-Amadhila for launching the Integrated Financial Management System, a system which will help the government to make informed decisions, since it includes general ledger, purchase order, accounts payable, accounts received, cash management, medical aid, cheque processing, help desk, housing collateral and emergency payment system. Semakula & Muwanga (2012) from Uganda highlighted how the Ugandan Government managed to automate the full budget cycle across all Units of Government, which enabled the central processing and storage of financial transactions. In keeping with the above authors, it can be stated that the described features of the IFMS seems to yield good results, since the financial transactions will be executed at a central point, which is a smart move to prevent manipulation of the system and which will promote efficiency and effectiveness of service delivery.

1.10 Division of chapters

1.10.1 Chapter 1: Introduction and background

In this chapter, the researcher has introduced what e-government and good governance is about, the challenges towards the implementation of digital workflows in the Public Service of the Republic of Namibia, how it is supposed to be implemented, and how it is not being implemented as per the requirements. The research touches on the four components, namely; the Electronic Documents and Records Management System (EDRMS), the Human Capital Management System (HCMS), the Performance Management System (PMS) and the Integrated Financial Management System (IFMS). The chapter further identified the research problem, the significance/relevance of the study, it highlighted why it was necessary to conduct this research, the objectives, research hypothesis and the delimitation and limitation of the study.

1.10.2 Chapter 2: Review of related literature

In this chapter, the research evaluated and referred to the work done by the previous researchers such as the study carried out by Dr. Catherine Nengomasha from the University of Namibia, at the Department of Information and Communication Studies, mostly on records management and EDRMS. The researcher also investigated other studies done by researchers in the region as well as worldwide, for example, studies by Subhash Bhatnagar, Shirin Madon, Vishanth Weerakkody and Christopher G. Reddick were evaluated, to mention but a few.

1.10.3 Chapter 3: Methods of study

In this chapter, the researcher presented the methods that were used to obtain information, the design of the study, the methods that were used to gather the desired data, the population, the sample, sampling procedure and sample size, research instrument, reliability and validity of instrument, the administration of the instrument, and the proposed method of the data analysis and the research ethics.

1.10.4 Chapter 4: Presentation and analysis of data

After the information was collected, it was then analysed in comparison and contrast to what was presented in the literature review. This process was done to establish whether the past researchers and the current researcher would end up with the same conclusion.

1.10.5 Chapter 5: Conclusion and recommendations

This chapter summarised e-government for good governance: The challenges towards the implementation of digital workflows in the Public Service of the Republic of Namibia especially in four OMAs, namely; the Office of the Prime Minister, the Ministry of Finance the Ministry of Information Communication Technology and the Office of the Auditor General. The conclusion covered the effects of not fully implementing digital workflows and numerous recommendations to improve records management practices were provided.

1.11 Conclusion

The challenges towards the implementation of digital workflows in the Public Service of the Republic of Namibia is well observed and well documented in Namibia as well as in the rest of the world. The significance of the study has been discussed as well as the research objectives that shared the same rationale of establishing what the causes and effects are of not implementing digital workflow and digital signatures in the OMAs. The hypothesis was drawn to test the connection that existed between the officials responsible for the implementation of the 4 E-Government projects. Finally the limitation of the study were also discussed.

2 Chapter 2: REVIEW OF RELATED LITERATURES

2.1 Introduction

The literature reviews in this thesis is related to the subject of e-government projects/applications, with a quest to promote good governance. The Namibian Government also followed suit, by introducing e-government projects/applications, simply because they acknowledged the importance of embracing technology in order to render services efficiently and effectively. This statement is supported by Weerakkody & Reddick (2013) when they emphasized how in Europe and North America nations have intensified their efforts to improve efficiency of public services through the introduction of the electronic government. In keeping with Weerakkody & Reddick, it can be said that technology is moving at an alarming rate and countries do not want to be left behind, hence they are beginning to embrace technology.

The nations realized the benefits of implementing e-government applications. The effects and benefits of implementing e-government is endorsed by Bhatnagar (2004) and the World Bank (2007), when they both confirmed that there is an increase in cases in which e-government projects have brought some tangible benefits to citizens and government agencies. This statement is confirmed both by Bhatnagar and the World Bank, therefore, it can be said that there exists a considerable demonstration of the benefits which e-government brings, in terms of accelerating economies in the delivery of services, provision of information and ease of access of administration services of the public sector.

It is also noted that the implementation of e-government does not come easy. Heeks (2003) identifies some of the challenges of implementing digital workflows through e-government projects/applications. The researcher states that approximately 35% of e-government projects are either never implemented or are abandoned soon after the implementation, while 50% of the projects do not reach their stated objectives. In keeping with this statement by Heeks, it can be confirmed that there are challenges worldwide when it comes to the successfully implementation of e-government projects and such challenges have directly undermined any efforts to achieve good governance. Indeed, public service delivery cannot be achieved in an environment in

which digital workflows are not properly implemented; therefore, the author of this research examined a few cases to demonstrate this statement, with more emphasis on the difficulties of implementing digital workflows and digital signatures.

The literature review investigated the challenges causing OMAs in Namibia not to implement e-government projects and/or applications fully. In response to that statement, the literature review presented a case for solutions, which became the practical focus of this dissertation. For example, Namibia could learn from the Government of Canada's tried and tested implementation of e-government applications. Roy (2006:25) explains that Canada provides unique insight into the challenges of implementing e-government applications and multi-channel service delivery. In keeping with Roy's statement, it can be seen that there are governments that went through the processes of implementing e-government projects and/or applications and there is no need to reinvent the wheel but to learn from them instead.

Furthermore, the challenges faced by other countries when attempting to implement e-government projects/applications, includes the issue of legal representation, in terms of having the right policies in place. This statement was emphasized by Bhatnagar (2004:80) when stated that the joint dependence between citizens and government is essential and this calls for the establishment of "enabling legislatures, economic frameworks and unified global regulatory" aspects that caters for electronic transactions. Namibia is no exception when it comes to having proper legal representation; hence, there is a need to investigate what is in place and what not and the way forward on the electronic transactions Bills. The same sentiment were shared by Finger (2005) when stated that the regulations and the policies in Information Technology use is still limited and hampers the full implementation of e-government projects/applications. In keeping with the above mentioned authors, it can be said that there is a need to develop inclusive regulations, policies and guidelines and amend where they are existing, in order to accommodate electronic workflow and digital signatures.

Some of the literature reviews revealed valuable lessons through case studies which provided important considerations for the Namibian government to put an emphasis on full implementation of e-government projects/applications. These lessons are backed up by Bhatnagar (2004:33), who stated that the Bhoomi e-government project in Karnataka in India is a prominent example of e-governance. Here, land titles are delivered online to millions of the farmers in less than “15 minutes”, instead of the traditional way of physically visiting the Office in order to be assisted by the officials. In keeping with Bhatnagar’s statement, it can be said that such commendable testimony and reduced face to face interactions reduced several weeks of waiting to obtain land titles and reduced corruption practices. Furthermore, on the lessons learned, the literature reviewed includes effects of implementing e-government projects/applications, usage of digital workflows, journal articles, workshop/conferences/seminar reports, books, and case studies. Therefore, it is relevant to the research as it sets best practice standard measures of implementing e-government projects/applications.

The following projects and/or applications were further interrogated, in order to give a clear picture of what they entail. The details are as follows;

2.2 Electronic Documents and Records Management System (EDRMS)

The implementation of Electronic Documents and Records Management System is analysed below, in order to give an overview of what it entails.

2.2.1 Introduction

The National Archives of Australia (2011:3) defined the Electronic Documents and Records Management System (EDRMS) as the software application that manages digital information such as e-mail, word-processed documents, spreadsheets, images and scanned documents. They further stated that it can also be used to control paper records and physical objects. It also enables desktop access to information across an organisation and provides the security, access, version control and audit functionality required for better practice of information management. An EDRMS can also deliver automated business processes, such as workflows and approvals.

This definition explicitly tells us the overall functionalities of the EDRMS and its purposes and benefits to the organisation.

Further on the researcher being involved in the implementation of the EDRMS is confirming that the Electronic Documents and Records Management System is a process of transforming hard copy records and documents into an electronic format, through the process of scanning and uploading them into the acquired system. The process starts first at streamlining the manual records, which involves making sure that records and documents comply with certain standards, for example having an approved Filing System, before embarking on the digitization process. The specific functionality of EDRMS depends on the needs of the specific institutions, however, the common functionality always include the management of documents, records, scanning, imaging and usually coupled with the implementation of the workflow functions, for institutions to render services effectively and efficiently.

2.2.2 The benefits of implementing digital workflows & digital signatures through EDRMS

The benefits of implementing digital workflows and digital signature through EDRMS is emphasized by Adam (2008:20), when stated that the workflow process is used to manage the workflow of information around an organization, for example, a letter is received in an organization by the Registry Officer, it is scanned into the system at the point of entry which is the Registry Office, it is indexed and classified with all necessary records/documents accessories, then it get routed electronically to the addressees for actions. Once the response letter is generated, it is also captured and follows the same route as a linked record to the initial record that prompted the response letter. The letter gets signed electronically with digital signatures and is then sent to the recipient electronically and at the same time archived into the EDRM System for preservation. Therefore, the steps involved in the letter being receiving electronically and routed around the organization from one person to the next person is called workflow.

In keeping with the Adam's statement, it is observed that the workflow process reduced time spent on receiving and processing the records compared to doing it manually. If it were to be done manually, the institution would have to recruit a

Driver to hand deliver the letter to the intended recipient as well as having to procure additional resources such as printing papers, so that the letter could be printed and hand signed by the authorized signatories before it could be delivered to the intended recipients.

The United Nation Commission on International Trade Law UNCITRAL (2001) provides comprehensive guidance for the legislative framework of digital signatures thus underscoring the importance of digital signatures. They state that the objective of digital signature laws and the various technology tools associated with them is to offer the means by which some or all of the functions identified as characteristic of handwritten signatures could be performed in an electronic environment. In keeping with UNCITRAL, it could be said that, for digital signatures to be effectively implemented and utilized to its maximum capacity, the legal frameworks around them should be formulated to cater for all possible situations in order to come up with the tools that identify and authorize the person to have signatory responsibilities. This statement ties in with the issue of users having issues trusting the systems; hence they need proper legal framework.

Furthermore, the US Electronic Signatures in Global and National Commerce Act (2000) also advocates for the removal of impediments in existing laws to conduct business electronically. In keeping with the above author, it is also important to consider the laws that remove all of the unnecessary obstructions, so that users are free to conduct electronic transactions.

2.2.3 The challenges of implementing digital workflows & digital signatures through EDRMS

Ginn (2011:20) states that a records system is a group of interrelated resources, namely; people, equipment, supplies, space, procedures and information – acting together according to a plan to accomplish the goals of the records and information management program. Therefore, anything that may interfere with any of these operations for one or more of these resources, both individually or in combination, creates a problem in the records system, and therefore may hinder the effectiveness of the records and information management program. In keeping with Ginn's

statement, what can be said here is that there is a wide range of facets that may affect the proper implementation of digital workflows and digital signature through the EDRMS once they are not thoroughly planned and attend to on time.

MacDonald (2005:1-17) indicated that there are numerous challenges towards having a successful EDRMS implementation, ranging from lack of resources, to absence of strong leadership, to poor understanding of what it means to design and implement a records management infrastructures that is relevant to the new environment. In keeping with MacDonald, it can be stated that Offices/Ministries implementing EDRMS may have most of the specified accessories, but they may lack the infrastructures that encompasses digital workflows as well as digital signatures. Therefore, the absence of the right records management infrastructures, especially ones that regulate the accountability for records and information, may obstruct the further implementation of EDRMS.

McLeod & Hare (2005:186-194) confirmed that there are numerous challenges towards proper records management practices, which tied in with the application of workflow and digital signatures through the EDRMS. They argue that in the industrial era the management and preservation of records was determined by the available time and space. In the electronic environment where records are no longer physical items and everyone has a role in the management, although not always understanding that role, the classical challenges still remain and need to be auctioned. In keeping with McLeod & Hare, what can be said is that the issue of Records Management is often neglected in some organizations, yet records are still regarded as the valuable assets ensuring the continuity of the business operations.

Introducing a new system is always a challenge, simply because, it brings in a new way of doing things. Therefore, it is noted that implementing EDRMS and all other functionalities such as workflow and digital signatures has never been smooth sailing, as noted by Adam (2008:185). Staff members in an organization may resist the implementation of the EDRMS and that of digital workflows and digital signatures, the reasons being, that staff members may not want to work with a new system but are essentially forced to. Such a situation may lead to lower staff morale,

decline in productivity and more staff members may end up being off work more often. In keeping with Adam's statement, it can be said that, if the implementation of the new system is not handled properly from the beginning, it can lead to chaos in an organisation, in terms of major breakdowns in operations, backlogs, poor productivity and lack of customer services. Therefore, such a predicament calls for proper planning of projects and/or applications before the initial implementation.

2.2.4 Conclusion

Introducing a change in management in organizations that embarked on implementing EDRMS would be an ideal solution towards better embracing of the system. Users need to be informed and guided through the usage of the new system, so that they are more open minded to working with the new system.

2.3 Human Capital Management System (HCMS)

The implementation of the Human Capital Management System (HCMS) is analysed below, in order to give an overview of what it entails.

2.3.1 Introduction

Human Capital Management System (HCMS) is defined by Benevene, & Cortini, (2010) as the core functions of HCMS, which basically supports the operation of Human Resources Management and in particular, employee record management, self-service and leave application management. In some cases, other organizations also implemented Oracle Payroll system to the HCMS System. In addition, it must be noted that the HCMS supports the users with functional and technical aspects, for example; the functional supports covers the operation of the information system, by providing guidance in handling transaction capture, processing, reporting and posting of data to other systems. Whereas, the technical supports covers correcting and debugging of software applications, administration of test, development, production and database serve activities, to mention but a few.

Other authors such as Lin et al (2017) also stated that the talented employees with exceptional skills are likely to generate a human capital advantage that differentiate

organizations' performance from that of their competitors. In keeping with the above authors, it is noted that most of the organisations are capitalizing on implementing and improving their human capital management systems, with the main aim of providing better productivity, effective and efficient service delivery to their customers and stakeholders.

2.3.2 The benefits of implementing digital workflows & digital signatures through HCMS

In the Southern Africa region, it was noted that South Africa vowed to introduce HCMS, in order to benefit from the system. This was marked during the launching of the Human Resources Module of the IFMIS, by the then Minister of Public Service and Administration, Baloyi (2011:1) by stating that the implementation of the Human Resources Module of the IFMIS is critical for supporting good governance. Corruption remains the biggest single threat to good governance in South Africa and in the Public Service, and fighting it remains a challenge. Through implementing the HR module, Government Departments will be in better position to eliminate ghost workers and the abuse of leave. The Human Resources Module of the IFMIS will enable Management to manage the disciplinary process in the Public Service better and will also automate the declaration of financial interests by Senior Managers. In keeping with Baloyi's statement, it can be said that our neighbouring country South Africa, noted the benefits that are brought by the implementation of the Human Resources Module of the IFMIS, and he also noted that the automated processes are easy to work with and that they stamp out bureaucracy and speed up the processes.

Kaplan & Norton (2004:65) confirmed that in the late twentieth century, many companies believed that managing operations was the most critical components of any organization's strategy. Hence, companies were inspired by the remarkable results achieved by the Japanese manufacturers in transportations, electronics, and optical industries, because, most of the companies placed a high priority on redesigning, reengineering, and continuously improving their operating processes. In keeping with Kaplan and Norton, it can be stated that, Japanese companies realized the importance of having workflow processes as early as the twentieth centuries and

they did not hesitate to venture into those business operating processes, because, they brought good results.

Card, (2016:9) from the Forbes Insight indicated that “the key to digital hiring process is employing electronic signature workflows, which potentially eliminates hours of printing, reviewing, scanning and filing letters, legal agreements, benefits paperwork and other employee documents”. As per the statement by Card, massive benefits could be gained from workflows and digital signatures, for example, the emphasis of which the HCMS processes are advocating to increase efficiency in recruiting officials, since the recruitment processes are done online, and the system will extract the list of candidates that met the right skill requirements. What can be said further on is that the system enables free flow of information between superiors and subordinates, which promotes easy access to the senior management. Based on the author’s observation, it can further be said that the implementation of the workflows through the Human Capital Management System is an essential tool that capacitate organisations to streamline their flow of tasks among employees, because, it assists Supervisors to generate accurate reports and assists in managing workforce, by tracking the progress, delays and attending to bottlenecks, that may delay the progress. Furthermore, it is noted that the implementation of the HCMS reduces cost on many areas, due to fewer manual processes and less paper being printed and filed.

2.3.3 The challenges of implementing digital workflows & digital signatures through HCMS

Issues with the implementation of digital workflows and digital signatures through the Human Capital Management System is also experienced by organizations. According to Hwang & Lee (2005:1-7), the implementation of digital signatures poses challenges, for example, the issue around the verification of multiple signatures by the person tasked with verifying documents. When this occurs, the receiver has to spend time to verify the validity of multiple signatures and it is noted that the process could be cumbersome and very costly to endure.

Based on Hwang & Lee’s statement, it can be said that the process of verifying digital signatures require massive scrutiny, in order to determine the validity and the

authenticity of the person that signed, and whether they are really authorized signatories. At the same time, the author is also of the opinion that the process is to take place through the workflow, which is going through the organization's server. The author further suspects that there could also be some delays and challenges which may be caused by the organization's server, such as the server being down at times when it is needed to be up and running, in order to verify the authenticity of the multiple digital signatures. Having said that, it is an indication that technology may bring all good benefits but at the same time technology may also fail users when the system is not up and running at the required time.

Further researches by Arnellos, et al (2010) also echoed the same sentiments as highlighted by the previous authors. They stated that there are many weak points in the procedure of digitally signing data, since it is not performed directly by humans but through hardware and software applied on binary data. In keeping with Arnellos, et al's statement, it can be said that the issue of trust is coming up again, whereby, the signatories do execute their tasks, and however, they have doubts about the trustworthiness of the system.

Having the previous authors articulating the challenges encountered when implementing digital workflows and digital signatures through the Human Capital Management System, it is also worth noting, as stated by Mayo (2012:309), that there is an issue of attitude of mind among Human Resources officials, because, in most cases the officials from these Departments are often feeling that they are unappreciated and misunderstood. In order to keep with Mayo, what can be said is that at times we also do not just need to look at systems that are not working but we also need to look at the attitudes and mindset of the officials responsible for the specific systems. It is possible that the project poses challenges due to the lack of interest in, attitudes, mindset and knowledge of business matters with many of the Human Resources officials.

2.3.4 Conclusion

The speedy implementation of workflows and digital signatures through Human Capital Management Systems in organisations is necessary since it should be the way

organisations conducts their businesses both in house and with the rest of the world. This will allow organisations to rapidly increase the value of worker roles within their organisations.

2.4 Performance Management System (PMS)

The implementation of a Performance Management System (PMS) is analysed below, in order to give an overview of what it entails.

2.4.1 Introduction

Armstrong (2015:16) explained that the Performance Management System (PMS) is a set of inter-related activities and processes, which are integrated as the key components of an organization's approach to managing performance through people and developing the skills and capabilities of its human capital. The system flows from the organization's goals and then operates as a continuous and self-renewing cycle. In keeping with Armstrong's statement, it is observed that the Performance Management System is designed to happen by way of electronic flow through computers, whereby all transactions are recorded, monitored and could be tracked down. This process is aspiring to promote and assist officials to become more efficient and effective in executing their daily tasks.

Florick & Ariyachandra (2006:1) also supports the previous author by describing the business performance management system as a tool to be used in order to support the achievement of the performance management strategy. It is described as an information technology based approach to organizational performance management, with a series of business processes and applications designed to optimize the development and the execution of the business strategy. In keeping with Florick and Ariyachandra's statement, it can be said that, performance management systems could be fully embraced once designed and incorporated in Information Communication Technologies, for example, if it could have built-in workflows, so that, activities are executed online, followed up online, and executors and users could check for progress/status/feedback online. Once all of the activities are finalized, the final execution reports can be signed off electronically and forwarded to the relevant

officials. This process calls for the implementation of the electronic workflow and digital signature processes.

Sorour, (2012:24) stated that Performance Management is continuously confused with and labeled as performance appraisal, which is retrospective in nature and overly concerned with the need to rate or judge the past performance. In keeping with Sorour's statement, it can be said that the concept of Performance Management Systems is confused from the onset and in most cases; people are of the opinion that once there is such an implementation, then there ought to be some sort of extra reward, different from the initial monthly salaries. It is also the case in some organisations, because some organisations that implemented Performance Management Systems also attached it to some sort of remunerations based on performance, as echoed by Harvard Business Essentials (2006:20) when stated that '*intrinsic rewards*' produced non quantifiable personal satisfaction, such as a sense of accomplishment, personal control over one's work and feeling that one's work is appreciated, whereas, '*extrinsic rewards*' are external, tangible forms of recognition such as pay hikes, promotions, bonuses, and sales prizes. Overall, what is transpiring from the above authors is the issue of employees at times not understanding the concepts of Performance Management and Performance Management Systems, assuming and expecting that once the Performance Management System is implemented, it ought to have some reward programmes attached to it, and not just for service delivery improvement purposes.

The implementation of the Performance Management Systems further brought numerous challenges, for example, the issue of rewarding those that performed highly as required and for not rewarding those who performed poorly. The aforementioned statement was further confirmed by Hall (2002:902) when stated that the tension arose over the division of pay as Managers and workers routinely feel underpaid but rarely feel overpaid. The bonus plan, even when it is working, never seems to drive precisely the right behavior. Subjective performance evaluations, especially those tied to rewards and punishments are dreaded tasks. They are fraught with anxiety, vulnerable to destructive politicization, and typically disliked by both those doing them and those receiving them. Further on and in

keeping with Hall's statement, it can be said that such practices end up causing instability in the organisations, because the lowly rewarded officials end up sabotaging the system, since they feel that they are not fairly evaluated and hence their rewards are very low.

2.4.2 The benefits of implementing digital workflows & digital signatures through PMS

The implementation of a Performance Management System, encompassing digital workflows and digital signatures ought to bear great benefits as highlighted by Disraeli, (2010:6) when emphasized that the workflow processes brought organizations to the realizations of unparalleled access to data about customers, suppliers, employees and competitors that could provide Managers with greater knowledge in order to make better decisions. In keeping with the Disraeli's statement, it can be said that embracing the technologies brought more benefits in terms of accessing various data at the same time, at the click of the button, in comparison with manual documents, which could be time consuming.

Disraeli, (2010:5) further confirmed how traditional management practices such as complex multiyear strategic plans, detailed annual budgets, and quarterly forecasts are obsolete. The emphasis here is that, the world is moving ahead in terms of embracing globalization and technological change; hence Managers need the right tools in order to stay on top of their game and in order to manage performance efficiently and effectively. Minnaar (2010:11) also observed how crucial the management of systems and processes are, by stating that the most radical business ideas of the 21st century may be the creation of a new method of invention and that is individualistic, global and not bound to corporate missions. The emphasis here is that institutions and organisations are encouraged to implement processes that promote flexibility, effectively, and efficiently and avoid obsolete systems.

Furthermore, Krauss, & Snyder, (2009:445-490) highlighted the benefits of embracing technology by saying that automating performance management systems offers several benefits, most notably, those related to the centralization of data,

integration of performance data with information from other systems, ease of data input and retrieval. The emphasis here is that technology is eventually making access of information simpler and easier, by way of allowing users to tap into other systems at the click of a button and retrieve the needed information. This is in comparison to manual methods, whereby, the user has to make a request to whomever has access to the other system to print out the information.

2.4.3 The challenges of implementing digital workflows & digital signatures through PMS

The execution of Performance Management Systems may pose many challenges if not planned and executed properly. This was emphasized by FMI Corporation (2000) when they indicated that Performance Management Systems are often under-utilized and also misused in many organisations. Poorly implemented Performance Management Systems can do more harm than good in the case where the system is not being designed to yield the honest results but to advance the interest of certain individuals. The examples of this would be cases where, during Performance Reviews, officials are not rating their subordinates fairly.

Organisations that poorly implement Performance Management Systems generally did not follow the basic steps of establishing Performance Management Systems as clearly stated by Aguinis, (2009) and Grote, (1996). They stated that the process should follow the certain stages, namely; pre-requisites, performance planning, performance execution, performance renewal and re-contracting. Aguinis and Grote set the standard, and once organisations follow the above said flow of the Performance Management Processes, it would be easier to incorporate digital workflows and digital signatures into the Performance Management System.

The challenges of implementing digital workflows and digital signatures through the Performance Management System, especially on the area of performance appraisal, were highlighted by Ashe-Edmunds (2017:1) who stated that digital performance appraisals are confirmed to be impersonal, especially when the employee receives the results on the computer with no face-to-face explanation from the supervisor.

Furthermore, the Botswana Unified Revenue Service (BURS) (2002) echoed the same sentiment, by stating that the successes of the Performance Management System depends upon the improvement of the environment of mutual trust and respect between the employees and the supervisors. Additionally, BURS stated that the process ought to be carried out independently and in an honest manner. In keeping with Ashe-Edmunds and BURS, the researcher is of the opinion that for as long as the process is being conducted online, there will always be the absence of proper explanation and proper clarification of certain aspects of the process, and the person being appraised may still feel aggrieved, in cases where the appraisal happen to be negative.

In the end, the researcher is of the opinion that, due to the absence of implementing digital workflows and digital signatures through the Performance Management processes, embracing technological aspects would be the ideal process, in order to enhance Performance Management processes and to address those challenges by automating most of the transaction processing activities. Workflows are beneficial, in terms of improved communications between officials, organizations and countries, because these facilities are easier, cheaper and conducive to use among officials. It is confirmed that once technology is used appropriately, it can smooth the progress of several performance management system goals and purposes.

2.4.4 Conclusion

Despite the numerous benefits and the challenges of implementing Performance Management Systems, and adding digital workflows as well as digital signatures, the fact remains that needs, competition, globalization and integration of systems will continue to force organizations and people to comply and cooperate towards embracing technological facets.

2.5 Integrated Financial Management System (IFMS)

The implementation of Financial Management Systems (IFMS) is analysed below, in order to give an overview of what it entails.

2.5.1 Introduction

The integration of any financial management system is crucial to organizations in the modern world. Balzli, & Morard, (2012) elaborated further when they considered how the financial and management accounting of large private and public companies would function without the finance modules of an enterprise resource planning (ERP). The above mentioned authors are of the opinion that there ought to be an integrated system in place, which shall function towards the improvement of the organization-wide information, enhance management decision-making and performance.

According to both Dorotinsky (2003:3) and Rozner (2008:1), they defined IFMIS as an information system that tracks financial events and summarizes financial information. It supports adequate management reporting, policy decisions, fiduciary responsibilities and the preparation of auditable financial statements. Basically, this is an explanation that the system moved some steps further from the usual accounting systems to incorporate automating of financial transactions, with the inclusion of workflows.

Furthermore, the Transparency International Source Book 2000 (2004) indicated how the word 'integration' is emphasized to mean a common, single, reliable platform database or a series of interconnected databases, to and from which all data expressed in financial terms flow. In keeping with the above authors, it can be said that experience taught us a lot, through the organization's funds being in disarray, which caused corruption and misuse of funds. This is due to the absence of a proper integrated financial system.

Having touched on the integration of processes and tools, Lianzuala & Khawlhiring (2008:1) managed to put it in a better perspective when it comes to what the IFMIS means during government operations, by stating that IFMIS subscribes to the

computerization of public financial management processes, from budget preparation and execution to accounting and reporting, with the assistance of an integrated system for the purpose of financial management. Looking at Lianzuala & Khawlhling's statement, it ties in with the previous authors, when they emphasised the integration of systems and computerization of processes.

2.5.2 The benefits of implementing digital workflows & digital signatures through IFMS

Hove & Wynne (2010:8) confirmed the massive benefits of having the IFMIS in place; by indicating that an IFMIS does assist the Management by guaranteeing accountability for the development and use of public resources and advancing the effectiveness and efficiency of public expenditure programmes. Indeed, IFMIS is a helping tool, to ensure that officials are hands on their activities through an automated financial system, in order to render the best services.

The embracing of technology was praised by Burns, & Vaivio, (2001) when they stated that the biggest technological changes that occurred in the accounting management brought the accounting profession to evolve from being primarily bookkeeping aspects to increasingly more project management strategy focused. In keeping with Burns & Vaivio, it is noted that the inclusion of up-to-date accounting software used in developed countries promotes compatibility in terms of being at the same level of operations and executing financial management aspects.

Furthermore, Kumar, (2011) described the Indian experience, when he narrated the processes of the workflow, as the bills that are being submitted by the officials on behalf of the government, for the expenditure incurred on various government schemes, in the treasury system and then the posting of the expenditure towards the bills. Analyzing Kumar's statement, it is observed that, for the bills to be posted/paid against incurred expenses, there has to be an organized workflow in place, of which the payment are authorized by an electronic/digital signature of some sort. Furthermore, it can be said that such a process is bound to yield good benefits, in terms of pre-programming the payments to be effected on the planned day, ensuring

that sufficient funds are available for the planned payments. An effective workflow based solution to ease the tracking of the documents reduces manual processing and auditing costs, and it also reduces control risk with complete audit trails and other controls.

Dr. Sharma, (2012) applauded the Government of India for introducing the IFMS and a step towards the control and the usage of digital signature, when he stated that the text files and the control file attached with digital signature are generated from Treasury Officers, then uploaded on the site of the IFMS Pay Manager, who will execute the signatory task. He further explained how the Banks have provided access to this site through digital signatures. As per Dr. Sharma's explanation, it can be said that massive measurements are put in place to avoid misappropriation of funds, by way of division of tasks, such as the official responsible for loading the files and the Pay Manager being responsible only for clicking the pay button. This is a demonstration that there are different points of data capture and other activities in between that ensures that payments are finally done and thereafter, the system also provides service providers and the employees an opportunity to view their payment details and the status thereof.

2.5.3 The challenges of implementing digital workflows & digital signatures through IFMS

The absolute size and the complexity of implementing an IFMS creates considerable challenges and a number of risks to the implementation process that go far beyond the simple technological risk of failure and deficient functionality. The studies conducted in various countries such as Malawi, Kenya, Tanzania, Rwanda, Uganda, and Ghana by Diamond & Khemani (2006:110) and Rodin-Brown (2008:2), indicated that some of the universal challenges are spanning from issues such as the lack of capacity, weak commitment to change, business process re-engineering, and technical challenges. In keeping with the above mentioned authors, what can be said is that the universal challenges towards any project implementation are known, hence they have to be addressed at the beginning of the projects.

Implementing digital workflows and digital signatures through the IFMS could be cumbersome, as it was highlighted by Wagner, & Lederer, (2004) when they stated that the implementation of the ERP in the public sector is likely not to be applied effectively, since it seems the public sector has limited experience and force with the ERP implementation, compared to the private sector. In keeping with Wagner & Lederer, it can be said that the public sectors are more relaxed towards enforcing the implementation and the adoption of the ERPs, which encompasses the usage of the workflows and digital signatures.

Beside public sector having limited experience of implementing ERPs, it was also noted that there is a risk to public sector aspiring to implement and adopt ERP systems, because of the lack of sufficient researches and case studies from this sector, Rosacker, & Olson, (2008). In agreement with Rosacker and Olson, it can be said that perhaps the few public sector organisations that implemented the ERPs did not document the processes and the challenges they encountered during the implementation phases and this makes it hard for other public organisations to learn from their experiences. It is further noted that the aforementioned factors are not the only ones hampering the successful implementation of the IFMS, as noted by the USAID (2008:40), which further confirmed that the failure towards the implementation of the government Integrated Financial Management Systems/projects lies in many factors, such as; the political structures, existing systems, human capital and other forces that come into play when attempting any major organizational change. In keeping with the USAID's statement, it can be said that other aspects may hamper the successful implementation of the IFMS, for instance, the instability of the country's political system, the economic recession and the lack of the qualified human capital, to mention a few.

2.5.4 Conclusion

It is noted that the successful implementation of the IFMS incorporating the workflow and digital signature is observed elsewhere in the world and it is based on the tried and the tested software and hardware platforms. Its failure is also noted and it is coupled with a number of factors such as change management, bureaucratic,

commitment, accepting change in technology, change in processes and procedures and change in responsibilities and behaviors.

2.6 Other Researchers that looked into the challenges of implementing digital workflows & digital signatures through EDRMS, HCMS, PMS, and IFMS.

This researcher investigated whether there were other researchers that looked into the challenges of implementing digital workflows & digital signatures through EDRMS, HCMS, PMS, and IFMS. The investigation concluded that none of the researchers did a combination of all four areas, namely the EDRMS, HCMS, PMS, and IFMS or any of the 2 areas. However, several researchers touched at aspects, depending on the specific areas of their topics, for example; Hare & McLeod (2010) mentioned the issue of some of EDRMS falling short of full recordkeeping functionality, such as the business processes, workflows and digital signatures.

The authors mentioned this issue when they were addressing the challenges of dynamic e-environment for records management and the approaches to managing e-records. The authors indicated how ideal it is for the organisations to have embedded records management functionality within business processes, for example; in an insurance company environment, they are using workflow to deal with insurance claims, through that the records of the process could be managed within the business process. What can be said is that the aforementioned authors were not specifically addressing the broader issue of implementing digital workflows and digital signatures. However, they saw that it is essential for organisations to implement full EDRMS functionality and that will only happen once the full functionality is incorporated into the system, either at the early design stage or amended in the middle of the processes. It may not be possible with all of the systems to add-on missing aspects, because, most of the systems that are from the shelves do not have provision for add-on.

Klausegger, Sinkovics, & Zou (2007) did research on Performance Management Systems, which can be tied to this topic, when they discussed how information

technologies exacerbate information overload and that information overload can have detrimental effects on the fulfillment of job responsibilities, experience of stress, and likelihood of working overtime and taking work home. The emphasis here is that the creation of workflow in Performance Management Systems also creates information overload, which may also be difficult to mitigate, especially in countries where infrastructure is of low standards, lack of capacitated officials and understaffed of institutions.

Ward (2009) highlighted various issues pertaining to challenges of implementing Human Capital Management Systems, stating that, the 1st generation of Human Capital Management Systems addressed business needs through systematic integration of many processes, which brought many challenges, and required experts to engage the evolving incorporating technology. Ward further discussed how, in the 1990s, Human Resources experienced a high level of frustration and challenges surrounding the desire to establish and manage processes that were laborious and Human Resources quest to deliver new methods for managing these processes would prove to be significant challenge. In keeping with Ward's statement, it is transpiring that the way forward is full integration and full automation of the processes, human capital content and services.

Another researcher that touched on the aspect of IFMS was Maake (2012:1) who confirmed the challenges experienced by the South African Government during and after the implementation of the IFMIS, by stating that the IFMIS programme has proved to be more complex than what was originally envisaged. There was initial lack of sufficient capacity in the State Information technology Agency (SITA) as the Prime System Integrator (PSI) from the commencement of the project, the misalignment between HRM product procurement and the Payroll product development resulted in challenges relating to the duplicate capturing of data on IFMIS and Personnel and Salaries Management System (PERSAL) in the HRM lead sites. There was insufficient capacity at user Departments to take on IFMIS modules, for example, inadequate ICT infrastructure, budgets and staff with sufficient functional capabilities. The confirmation of challenges experienced by the South African Government takes us back to the issue of proper planning, which ought to be done at

the initial stage before starting to implement the system. What is observed here are the usual patterns of insufficient budget to procure the necessary equipment, software, hardware as well as the issue of lack of capacitated personnel to run the desired project.

In reality, there is no research that has been conducted, that examined all 4 projects, namely; EDRMS, HCMS, PMS, and IFMS at once, and by one author, as the systems that implement digital workflows and digital signatures and the challenges thereof. The scant research related to these issues were done here and there on single projects or rather by way of touching by in addressing other issues.

2.7 Conclusion

It is concluded that the successful implementation of the 4 e-government projects/applications, namely, the Electronic Documents and Records Management System (EDRMS), the Human Capital Management System (HCMS), the Performance Management System (PMS) and the Integrated Financial Management System (IFMS), if no vigorous intervention is done, the full implementation of these projects and/or applications will forever be hampered by the availability and retention of skilled Project Managers, retaining the right people, and the availability of sufficient resources.

3 Chapter 3: METHODS OF STUDY

3.1 Introduction

It is very essential to collect relevant and up-to-date information and it is more important to collect primary information. The simpler the methods of the data collection, the easier it is to obtain the required information. This chapter highlights the methods that were used to execute the study and the procedures that were followed in collecting and processing the data needed for this study. It covers the research design, the population of the study data collection strategies, the sample size and the data analysis.

3.2 Design of the study

Cooper & Schindler (1998:1) defined research design as a plan and structure of investigation so conceived as to obtain answers to researcher's questions. The plan is the overall programme of the research. For this research, a case study approach was used which is qualitative in nature. The study being a case study, seeks for deeper understanding rather than surface features of the case under investigation. The officials from the 4 Offices, Ministries, and Agencies selected, were interviewed in order to put the study in the context of the research questions. The idea behind this study is not just to find out why e-government projects and/or applications are not fully utilized but to pave the way forward on what is to be done further, so that government and its stakeholders could render better services/interactions.

Having said that, the following information is an emphasis on how the selection of the implementation projects and the Departments were done, with a focus on what was done before, how it was done, why it was done and the outcome of the implementation of the respective projects.

The reason behind the selection of the 4 projects is that these 4 projects were initiated to be implemented and to assist the Namibian Government towards achieving the realization of e-Governance, and that the Office of the Prime Minister was authorized to be the main implementer of most of the projects, and to roll the

projects out to all Offices, Ministries, Agencies and Regional Councils, across the Public Service of Namibia.

The City of Darebin Council, in Australia (2000) is advocating for Institutions to take the Knowledge Management approach, involving a strategic framework to define the boundaries and the projects, engage in external environmental analysis, business cases and plans, technology and information management tools to support the system infrastructure, culture-based initiatives, business process review and change, organizational development initiatives and definition of roles and responsibilities when it comes to the executions and implementations of the projects.

In keeping with the City of Darebin Councils' statement, the 4 projects are related to one another; because, they ought to embrace technologies. However, in as much as the projects are related, the facilitators are from different Offices/Departments, for example; the facilitators of the EDRMS are from a Division called the Applications & Archival Support Division within the Department of Public Service Information Technology Management, in the Office of the Prime Minister, the HCMS and the PMS are being facilitated by the Department of Public Service Management, in the Office of the Prime Minister, whereas, the IFMS is being facilitated by the Ministry of Finance. Furthermore on the relationship of these projects is that the EDRMS initiative was that the records generated from the EDRMS itself and the records generated from rest of the projects were to be filed into one authorized Records Warehouse, that of the EDRMS. This calls for the integration of all projects, to be linked together and to communicate.

3.2.1 Electronic Documents and Records Management System

Some background information involving the Electronic Documents and Records Management System (EDRMS) is that in line with the E-Governance Policy, the Cabinet Retreat held in 2005, in Swakopmund, resolved that the Office of the Prime Minister should embark on Information Communication Technology initiatives to enhance capacity building and improve service delivery. Hence, the Cabinet took a decision on the 10th of March 2007, to address the issue of poor records management. The Office of the Prime Minister was authorized to address the

concern of records management and collaborate with a company called Beijing CSSCA Technologies Co. Ltd and roll-out the system to all Offices, Ministries, Agencies and Regional Councils, across the Public Service of Namibia.

On the worldwide fraternity, the necessity to introduce EDRMS in organizations was also supported by Ellis, (2005:163-85) in Darebin City Council, in Australia, when indicated that Executive Management saw the need for a long-term records management strategy. Ellis further stated Executive Management saw the need to incorporate the discipline of records management and relevant framework, the need for an 'enterprise-wide' view, an approach to managing document-based information of all types, elimination of information silos and changes in individual and organizational behavior.

In keeping with Ellis, what can be said about the issue of proper records management, is that the objective of EDRMS on the Namibian perspective is to ensure a risk-free records and archival system which is set up in sustainable electronic documents and records management environment, in line with the National Archives Act, (Act number 12 of 1992) and other related statutory provisions. Further on, it was noted that the Offices, Ministries, Agencies and Regional Councils are using modern information communication technologies on a frequent basis, when executing their daily tasks. Therefore, there is a need to improve records management practices in Offices, Ministries, Agencies and Regional Councils, in order to ensure compliance with the law and directives. Furthermore, staff members are utilising the internet and intranet system, to conduct official businesses of government and they are creating official records in a modern and advanced manners.

Having given background information on the introduction of EDRMS, the actual implementation of EDRMS started in 2009 and the E-Office software which is being designed to cater towards the better arrangement of records management has a built-in platform that ought to enable the utilization of the workflows as well as the usage of digital signatures. Hence this calls for the investigation to assess whether and how these accessories are being utilized.

3.2.2 Human Capital Management System

The Government of the Republic of Namibia in formulating its Vision 2030 has recognized the need to address the issues of Human Resources. Therefore, the Office of the Prime Minister introduced the Human Capital Management System, as a way of managing Human Resources, by way of incorporating technologies, so that all functions of Human Resources are linked together, such as; Employee Records Management, Self Service, iRecruitment, Leave Application Management, to mention but a few. This project is facilitated by the Department of Public Service Management. The introduction of the HCMS is a result of the Government skills average approaching 40 and a widening gap between skills-to-agency, all in an era of stricter mandates, tighter budgets, and tougher accountability. Hence the Government decided to look at technology in order to address these and other challenges.

Although the project is being driven by the Department of Public Service Management, there is a Division at the Department of Public Service Information Technology Management, which is responsible for the provision of support services to Offices, Ministries, Agencies and Regional Councils on the Human Capital Management System aspects, for the operations of Human Resources Management. The team is made up of a Technical team, which is responsible for the operation of the system, by providing guidance in handling transaction capture, processing, reporting and posting of data to other systems. Another group is the Technical team, which is responsible for the correcting and debugging of Software applications, fine tuning of Software Applications, Administration of Test, Development, Production and Databases. The next groups are the Database Administrator and the Application Administrator, these officials are responsible for the synchronizing Database between production and environment and monitoring of Form Server, report Server and Web Services, respectively.

Having given the background, initially, the Office of the Prime Minister contracted a Consultant /Company to spearhead the implementation of the HCMS across all Government Offices, Ministries, Agencies and Regional Councils. However, the implementation was not concluded successfully, which called for the termination of

the Consultancy. Later on a decision was made for the Department of Public Service Management to spearhead the implementation. The Department brought Offices, Ministries, Agencies and Regional Councils on board and the initial activity was to capture data into the system.

The introduction of the HCMS resulted also in the implementation of the Central Help-Desk System, which, can include a Knowledge Management Module and integrated Telephony System. This process is advocating for the users of systems to call at one central point and be transferred to the available Help Desk Officer to that Module. The Help Desk System can automatically display information of existing issues from a caller so that the Support Officer will be able to know the exact status of enquiry/issue of the caller at a glance.

The Help Desk System is one the most successful Modules implemented so far, the rest of the Modules have had issues and negotiations are ongoing, to recapture data and amend all issues that were identified.

3.2.3 Performance Management System

The implementation of the Performance Management System (PMS) is guided by the Constitution of the Republic of Namibia; the Public Service Act, (Act number 13 of 1995), the Regulations and Public Service Staff Rules promulgated under the Act, the Public Service Commission Act, (Act number 2 of 1990), the Affirmative Action Act, (Act number 29 of 1998), the Labour Act, (Act number 6 of 1992), the State Finance Act, (Act 31 of 1991) and the Treasury Instructions. Therefore the PMS is applicable to all public servants appointed under the Public Service Act, (Act number 13 of 1995). Member of the Services (uniformed personnel) are excluded from the system, unless such Offices, Ministries, Agencies and Regional Council opt to use the system, or elements thereof, for their uniformed staff complement.

According to OPM (2005:22) Prior to Independence performance appraisals in the Public Service of Namibia were done through the Merit Assessment (applicable to all staff below the Management cadre) and Efficiency Rating (applicable to the Management cadre) Systems. The aforementioned systems continued in the early

years after Independence and then under the Wages and Salary Commission (WASCOM), a new system was introduced during 1996, called the Performance Appraisal System (PAS). This system was, however, suspended by Cabinet during 1998. A report compiled by the Office of the Ombudsman identified the main reasons for failure in implementation as the lack of supporting organisational culture and insufficient training on the system prior to implementation.

During 1998, OPM with the assistance of the Centre for Public Service Training conducted a training needs analysis among Senior Management across the Public Service of Namibia and as a result, a need was identified to introduce a Performance Management System in the Public Service of Namibia. During the same period the OPM also facilitated the development of the Strategic and Management Plans for Offices, Ministries, Agencies and Regional Councils and underscore the fact that performance management should play a key part in the effective implementation of such plans. With the commitment of the Senior Managers in Government and especially the OPM, a Project Team was constituted during April 2001 with the mandate to develop a framework and identify principles for a PMS for the Public Service of Namibia. Thereafter, the actual implementation of this project commenced and it is rolled-out to most of the expected Offices.

3.2.4 Integrated Financial Management System

IFMS is an Information Communication Technology based, budgeting and accounting system that manages spending, payment processing, budgeting and reporting for the Namibian Government. The background information towards introduction of the Integrated Financial Management System (IFMS) is that previously the Namibian Government had a system called the Financial Management System, which was used for both the management of the public financial resources as well as for the management of the decision-making in Government; however, this system had been inadequate in term of being reliable. The unreliability of the previous systems was confirmed by the then Minister of Finance, Honourable Saara Kuugongelwa-Amadhila (2006) at the launching of the new system, the Minister stated that the old system failed to deliver on two principal demands, namely; on

timeliness and accuracy. In keeping with the statement by the Minister of Finance, the old system seemed not to have the right mechanisms to manage the Government funds, which could be a threat and encouragement for corruption.

Based on the background information about the IFMS, the new system is now running on Oracle HW, Solaris, Oracle Veritas technology. It was recently upgraded to the Financial E-Business Suite and its data is found on the following modules of General Ledger, Oracle Purchasing, Fixed Assets, Accounts Payable, Accounts Receivable and Cash Management module. It also comprises of a mix of custom developed modules integrated to Oracle Financial Modules and this development was done on Oracle Internet Developer Suite. The IFMS is structured in a way, so that it interacts with other functions of the Ministries as well as with related stakeholders.

There are several operations being done on the data, for example; Budget ledger, Account payable and payment management, virementation process and account inquiry. The aspects of Budget management is basically covered through the module of Budget ledger, where this function is executed as the central repository for the Government's IFMS budget data, so that the users may have the mechanism for controlling funds on the Budget ledger. The ledger does provide a variety of tools to create, maintain, and track the operational and development budget.

Another operation is that of the Account payable and payment management, which is the process of paying the accounts of suppliers, such as; electricity bills, water bills, stationery accounts, telephone bills, purchase orders and vouchers. The payment of salaries for staff members is also part of the payable accounts, whereby; the system is programmed to pay staff members according to their grades, taking consideration of benefits and other related that need to be paid when required. Payment management provides a level of control and confidence unmatched by the other vendors through powerful approval and notification workflows, secure transmissions, and processing of bank acknowledgements that the payment has been processed. For example, the payments by the government to foreign countries are

being finalized by the Bank of Namibia, and a final notification will be required by the concerned Ministry.

Virementation is a process of transferring money from one part of a budget to another. Such a process could be used to enable budget organizers to revise anticipated changes in the pattern of future expenditure. The benefits of virementing funds is that, once funds becomes depleted, they can be given money from unspent sections in order to execute their activities, and at the same time, it helps for the funds not to be returned back at the end of the financial calendar.

Last but not least, the Account Inquiry is used to inquire, check and verify whether the budget journal is accounted for. The deliverable being investigated here are to look at the actual budget, how much money was spent, how much overspending was encountered and so forth. The account inquiry also encompasses the audit trail, the aspect which involves is reporting on all transactions and operations taken on the system.

In conclusion, the researcher is of the opinion that the successful implementation of the 4 projects should be realized through interfacing with other systems namely Payroll, Medical Aid, Government Institute of Pension Fund, Social Security Commission, among other systems. This process calls for the implementation of a One-Stop-Shop Centre for all stakeholders involved. What transpired is that the 4 projects are being executed by a number of stakeholders. All of these stakeholders have Offices across the City/Country; hence, it is imperative that the Government establishes a One-Stop-Shop Centre, which will serve as the entry point for capturing all necessary records/data. The implementation of a One-Stop-Shop Centre will help and save clients time.

3.3 Methods used to gather the desired data

The data collection methods employed was semi-structured interviews with individuals, direct observation and document research. These methods are encouraged in qualitative search, the reasons being, that it is best to gain first-hand information by engaging the respondents face to face and making sure that follow up

questions are also posed to extract more information. An emphasis regarding the qualitative interviews was further demonstrated by Hoepfl (2008:2) when observed that qualitative interview may be used as a primary strategy for data collection, in conjunction with observations and document analysis.

3.4 Population

Mitchell (2005:1) defines population as the study object and that it consists of individuals, groups, organisations, human products and the events or conditions they are exposed to. Therefore, the population of this study is the Office of the Prime Minister, in particular the Departments responsible for the implementation of the following e-Government projects/applications; the Electronic Documents and Records Management System, the Human Capital Management System, the Performance Management System, Ministry of Finance as the custodian of Integrated Financial Management System, the Ministry of Information Communication Technology as the custodian of government technologies and related laws and the Office of the Auditor General.

3.5 Sample, sampling procedure and sample size

According to Ploeg (2008:4) sampling refers to the process used to select a portion of the population (sample) for the study. Ploeg observed that sampling decisions are made for the explicit purpose of obtaining the richest possible source of information to answer the research questions. For this study, a purposive sampling procedure was used to obtain a sample size of adequate population. Jupp (2001:3) defines purposive sampling as “a form on non-probability sampling in which decisions concerning the individuals to be included in the sampling are taken by the researcher, based on a variety of criteria which may include specialist knowledge of the research issue and capacity and willingness to participate in the research”. Therefore, since the purposive sampling was used, 24 officials from various fields and from different Departments were interviewed and the exact representation of the officials interviewed and the number of interviewed from each OMA is displayed under table number 1. The aim was to interview at least one official dealing directly with any of the 4 e-government projects/applications, hence this target was achieved. On the procedure aspect, permission was sought from the Permanent Secretaries of

the respective Offices, Ministries, and Agencies to engage the officials in the interviews.

Table 1: Sample interview population breakdown

OFFICES/MINISTRIES/AGENCIES	POSITION	NO. INTERVIEWED
Office of the Prime Minister		6
Office of the Auditor General		6
Ministry of Information Communication & Technology		6
Ministry of Finance		6
TOTAL NUMBER OF OFFICIALS INTERVIEWED		24

3.6 Research instrument

Since this study is qualitative in nature, interview guides were used during interviews. The guides ensured that focus was maintained during the interview and the research itself was flexible, which is a very important aspect of qualitative research. The interview guide was piloted for the sole purposes of developing and testing the adequacy before the actual research was done, in order to accommodate the issues of validity and reliability. The guides used included; the guide for interview with the identified staff members, observation checklist, guide for support Departments.

The Researcher was fortunate to be the Project Manager for the implementation of one project, the Electronic Documents & Records Management and who also happens to work for OPM, the Organization that spearhead the other 2 projects.

Therefore, it was very easy to share the intended research with the rest of their colleagues, for their input and more specifically to indicate what they want the research to address. After all, the results will be able to help them in improving the implementation processes for better results. Hence the crafting of research questions was guided by what challenges the colleagues were eager to address. Furthermore, the colleagues based their focus on an observation checklist, items that were set as targets, but were not being accomplished, in order to successfully implement the projects.

3.7 Reliability and validity of instrument

Mwela (2007:3) stated that validity is concerned with data accuracy, while reliability refers to the ability of research instruments to obtain consistent and stable results with replication. In keeping with Mwela's statement, it simply refers to the extent to which a research instrument is designed to measure. The researcher of this study is confident that the instruments are reliable and valid, because the researcher did pilot testing. The researcher also used triangulation, using various methods to collect data such as face to face interviews, observation and document search.

3.8 Administration of instrument

The researcher administered this instrument through face to face interviews and document search. The researcher used semi-structured questions and had meetings with the respondents, using a notebook when interacting with the respondents.

3.9 Method of data analysis

Marshall & Rossman (1990:6) describe data analysis as the process of bringing order, structure and meaning to the mass of collected data and that qualitative data analysis is a search for general statements about relationships among categories of data. Content analysis was used to analyze data for this research as Hitchcock & Hughes (1995) described content analysis as a process consisting of reading and re-reading the transcriptions looking for similarities and differences in order to find themes and develop categories. The analyzed data was then used to present findings upon which conclusions and recommendations are based.

3.10 Research ethics

This study addressed ethical issues by ensuring that the data collection techniques employed did not cause any physical or emotional harm to the respondents. The researcher sought consent, whereby, the research participants were not coerced to take part in the research, the participants were informed to participate on a voluntary basis and they were also informed that that they could pull out any time without any consequences. Firstly, the researcher explained what the research was about, and secondly explained what the study would be used for and how it will affect the participants and the approximate duration of the interview. The researcher also assured the participants that the information collected will be kept confidential by not revealing the names and sources of the respondents.

3.11 Conclusion

This chapter discussed the challenges encountered when implementing digital workflows in the Public Service of the Republic of Namibia. The researcher used interview data collection methods. This chapter showed the total population, the research design, the data collection strategies and the sampling method which was used.

4 CHAPTER 4: PRESENTATION AND ANALYSIS OF DATA

4.1 Introduction

The study sought to establish the existing challenges, when it comes to the implementation of digital workflows in the Public Service of the Republic of Namibia, with a focus on the 4 identified Offices/Ministries/Agencies, namely; the Office of the Prime Minister, the Ministry of Finance, the Ministry of Information and Communication Technology and the Office of the Auditor General. Furthermore, it identified areas that still need to be worked on and finally recommended areas that need to be perfected. This chapter focuses on the presentation and analysis of the data collected in this study.

The results of the findings obtained from the study are discussed in this chapter. The information obtained from direct observation, document search and as well as from the interviews that were conducted were used in this study. The overall target of the sample size for the interviews was 24 officials coming from 4 Offices/Ministries/Agencies.

4.2 Classification of the data from the Office of the Prime Minister

This study was carried out among the staff members of the Office of the Prime Minister in Windhoek. Since the overall target of the sample size for the interviews was 24 officials, therefore, 6 staff members from the Office of the Prime Minister were interviewed and the results are displayed below.

4.2.1 Presentation and analysis of the data from the interviews

Section A: General information

4.2.2 Age Group

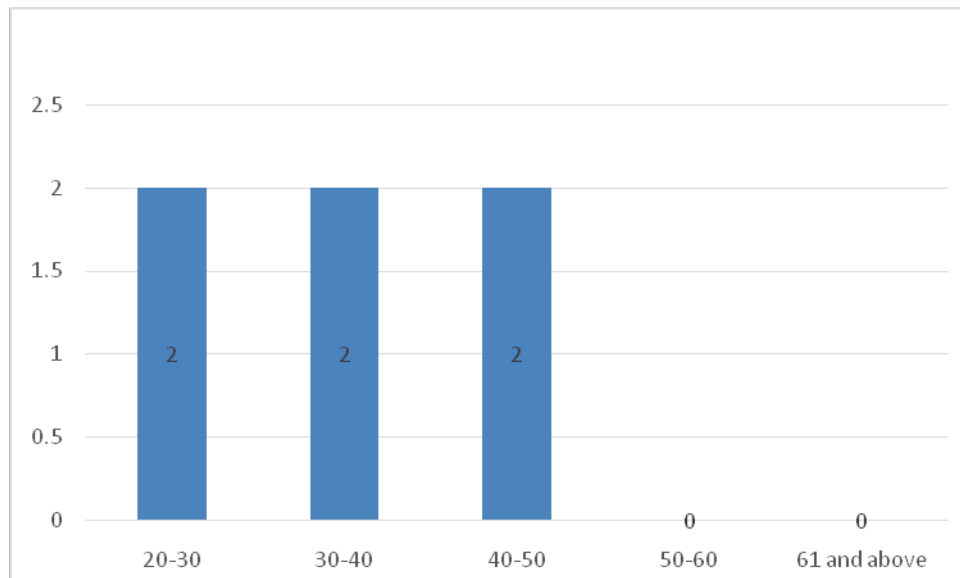


Figure 1: An indication regarding the age group of the officials from OPM.

According to figure 1, the respondents that were interviewed were 6, therefore, 33% were at the age of between 20-30, 33% were at the age of between 30-40, and 33% were at the age of between 40-50.

4.2.3 Gender

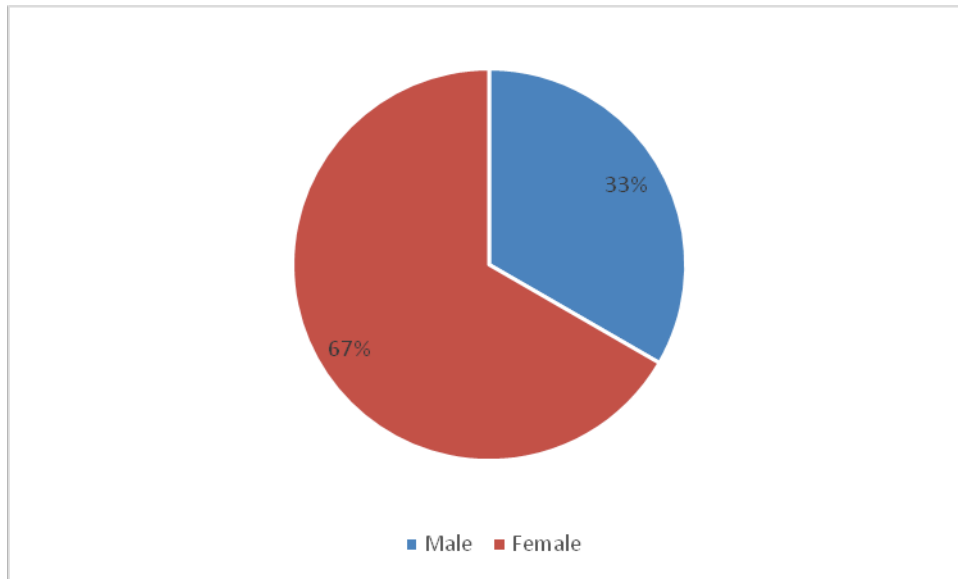


Figure 2: An indication regarding the gender category of the officials from OPM.

According to figure 2, the majority 67% of the respondents were female, whereas the minority, 33%, of the respondents were male.

4.2.4 Level of education

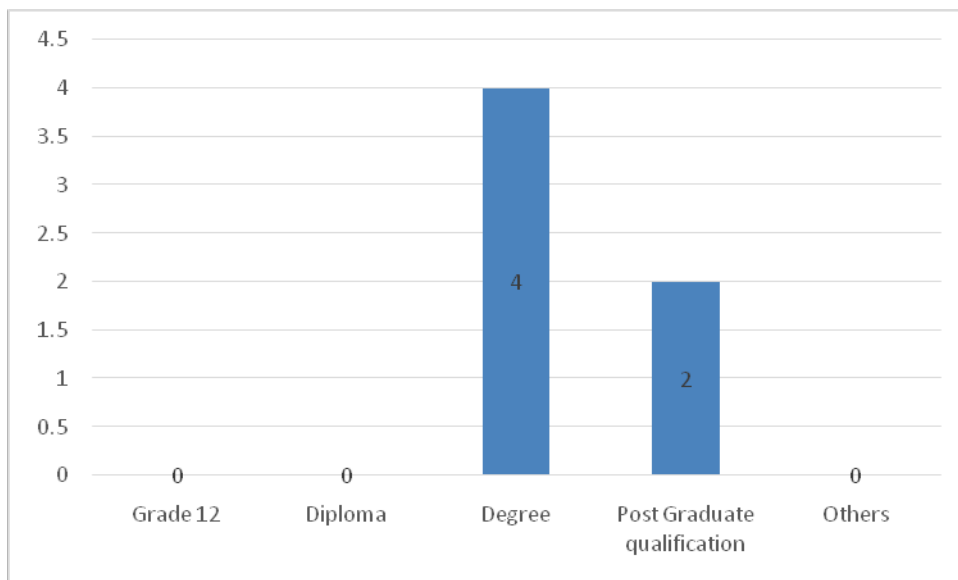


Figure 3: Responses regarding the level of education of the officials from OPM.

According to figure 3, 67% of the respondents have Degrees, and 33% have Post Graduate qualifications.

4.2.5 Job Titles

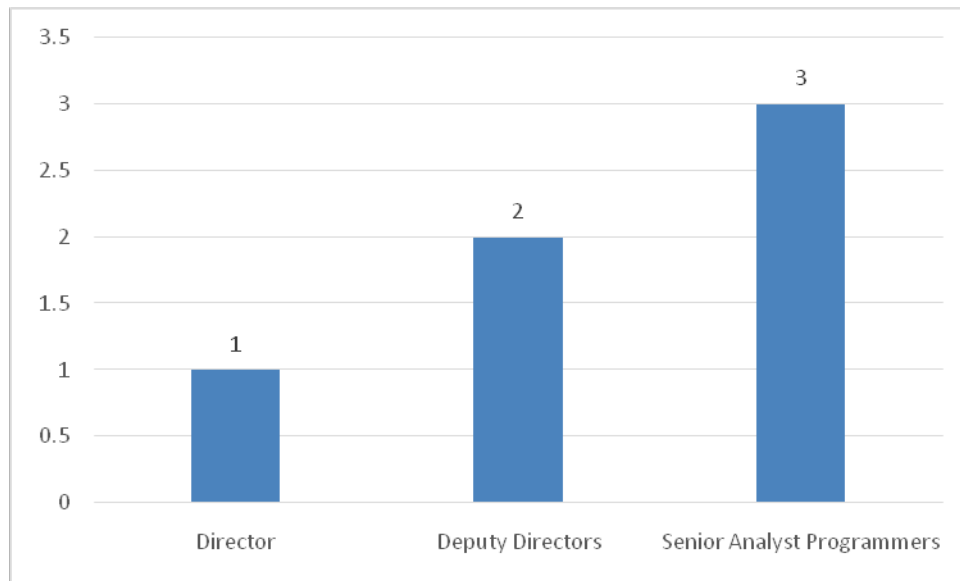


Figure 4: Responses regarding the Job Titles: OPM.

According to figure 4, the respondents came from various fields of studies, various levels of the structure, and their job titles are as listed above.

4.2.6 Number of years employed at the OPM.

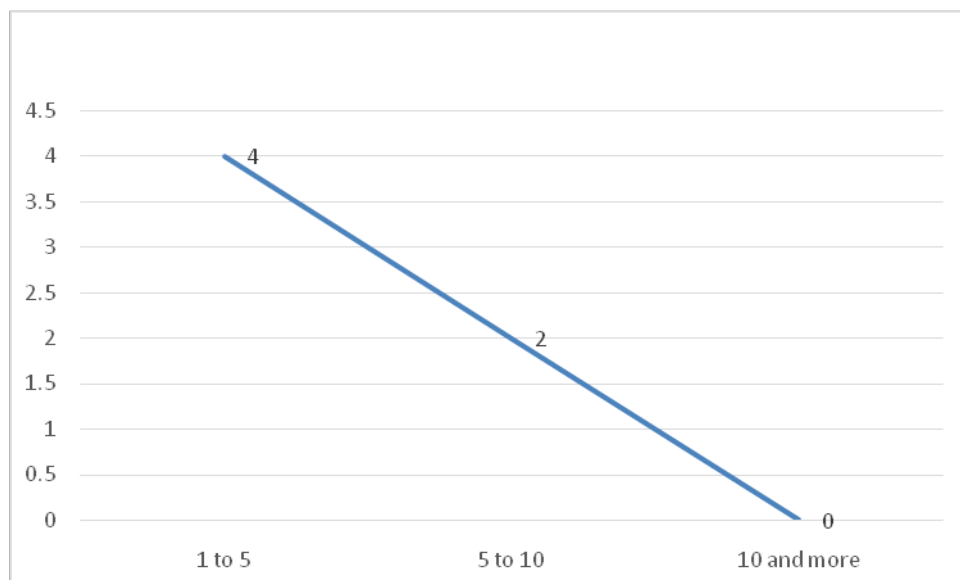


Figure 5: Responses regarding the number of years employed at the OPM.

According to figure 5, 67% of the respondent worked at OPM between 1 and 5 years and 33% worked there between 10 and more years.

Section B: The status of e-government projects and/or applications in the Office of the Prime Minister

4.2.7 Explain the meaning of e-government concept and its benefits.

The researcher got various responses from the respondents to explain the meaning of the e-Governance concept and its benefits. The first respondent stated that e-government is a means for institutional capacity reinforcement, because it looks into the complimentary components which are the pre-requisite for the governmental for the proper function of the organisation reviews. The respondent further stated that e-Government is a process to reform the way government works, share information and deliver services to its clients. As on the benefits, the first respondent indicated that it reduces transaction costs, facilitates the avoidance of duplication of work, enables faster service delivery, increases outputs and easy accessible of information.

The second respondent indicated that e-government is the participation of the citizens in the government business, through the use of technology, and the respondent further gave examples such as voting online and giving opinions on bills discussed in Parliament. The respondent further elaborated on how e-government is about improving service delivery through accessing government services online, such as through the application for a study permit online. The respondent further touched on the improvement towards the lives of the citizens, of which they could access and know of government services, a process that saves the citizens the cost and time of standing in lines and waiting for a long time to be served. As to the benefits, the respondent indicated that the benefits of e-government in OPM were very minimal, because, most of the work is done manually, hence, it creates frustrations in the workplace knowing that there are Information Communication technology solutions to ease the situation but unable to utilize them due to various challenges.

The third respondent stated that the e-Governance is a critical government reform initiative that aims to support Government Offices, Ministries and Agencies, to radically streamline their processes, in order to improve service delivery to citizens, residents and the businesses. The respondent further stated that e-governance has 3

components, namely; Government to Citizens, Government to Government and Government to Business. As to the benefits, the respondent indicated that the overall benefits of e-government is the acceleration of service delivery, reduce costs and improve quality of services delivered to citizens by any government institution at all levels. The fourth respondent stated that e-government is a process to replace manual processes with the electronic system and the integration of the systems that provides government services. As to the question of whether e-Government has benefits, the respondent agreed and explained that with e-government, the delivery of services is faster; information can be stored and replicated to prevent data loss, and provides easy and faster access to information.

The fifth respondent indicated that e-government enhance technology to provide better services to citizens and as to the benefits, the respondent indicated that it enables better communication and provides better availability of information, better transparency, as information on government processes are available online. It renders effective roll-out of services to remote areas. The sixth respondent stated that the purpose of e-government is to make all services of the government accessible online, he stated an example that this includes all services provided by the various government Offices, Ministries and Agencies. He further stated that apart from making services available online, e-government project will also integrate all the systems/applications at the Offices, Ministries and Agencies, so that information can be shared and exchanged by the various systems, rather than have duplicated information from one Office to the next or outdated information. He further explained that if employees at other particular Ministries wanted to recruit someone, they should be able to go online and access the records of that particular individual without any delays.

4.2.8 Which of the 4 (EDRMS, HCMS, PMS and the IFMS) E-Government projects and/or applications is fully implemented and utilized in your OMAs?

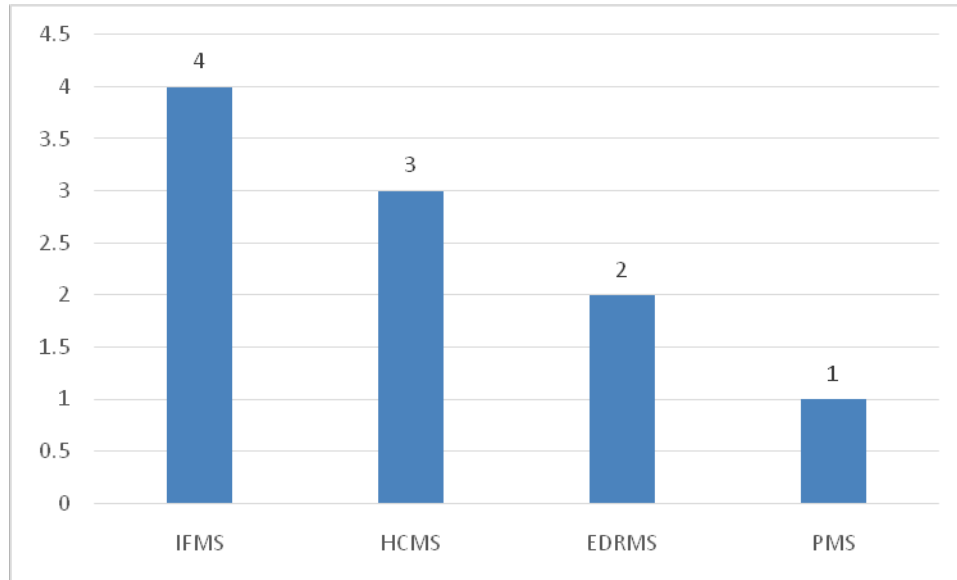


Figure 6: Responses regarding the 4 E-Government projects and/or applications that are fully implemented and utilized in OPM.

According to figure 6, the majority of the respondents, 67%, indicated that the Integrated Financial Management System is fully implemented and utilized in the OPM; followed by 50% Human Capital Management System, followed by the 33% Electronic Documents and Records Management System, and then followed by 17% the Performance Management System. Further question as to why the respondent thought the cause was of the projects and/or applications not to be fully implemented, the first respondent indicated that it was due to the lack of internal capacity, resistance to change, lack of resources in terms of acquiring equipment. The second respondent stated that it was the EDRMS, the filing of records is still done manually, HCMS is still at the infant stage of entering and verifying basic data and whereas the PMS all are still done manually and it is a cumbersome exercise.

The respondent further suggested that there is a need to introduce changes in management, the projects are not prioritized on a higher level, and Offices, Ministries and Agencies are not taking ownership and commitment to implement the projects and further indicated that there is a lack of supporting tools and resources

for implementation. The third respondent explained that none of the projects and/or applications are fully implemented, because, EDRMS and HCMS have been at the infant stage, she further explained that PMS is still a manual process and it is not yet part of e-government and the IFMS is also manual. It is basically excel based system not integrated at all. The respondent advised that OPM need to move the IFMS from excel based to the e-budgeting, in order to become a reality. The third respondent further explained that the reason some of the projects and/or applications are not fully implemented is because, the business process re-engineering, in order to streamline and cut unnecessary processes, was not properly conducted with the involvement of users. The process workflow is not well documented, there is resistance to change. She further stated that there is also a lack of senior management commitment and accountability, there is no system of holding Permanent Secretaries and other senior government officials accountable for their noncompliance to implement these reforms. Thus, they are free to choose whether to implement or not to implement e-government projects/applications.

The respondent further indicated that, other reasons why the projects and/or applications are not fully implemented is because of the lack of capacity building, a lot of staff members need stern capacity enhancement to deal with the new system. Most of the staff members are not computer literate and they also need training on new streamlined workflows. The respondent further indicated that sufficient resources at the Ministry level to train and capacitate staff on an ongoing process is lacking. The respondent concluded that another issue which is also a contributing factor towards the low implementation of e-government projects and/or applications is the lack of infrastructure, stating that not all staff members have modern computers and in most offices, ministries, and agencies the hardware and software does not have sufficient capacity.

The last respondent answered that he believed that the Performance Management System is still in the pipeline and it would soon be a reality, whereas, the IFMS is a custom ERP at the Ministry of Finance. From his definition of e-government, he does not think it fully qualifies to be called e-government project/application, because, it does not talk to other systems of the government, such as the Ministry of Home

Affairs or the Police system. He further indicated that from his own explanation, that even these systems such as the HCMS and the EDRMS these systems are still operating independently, may be they are the start of e-government but they are not fully operational.

4.2.9 Is any of the applications having embedded digital workflows and whether digital workflows are being used?

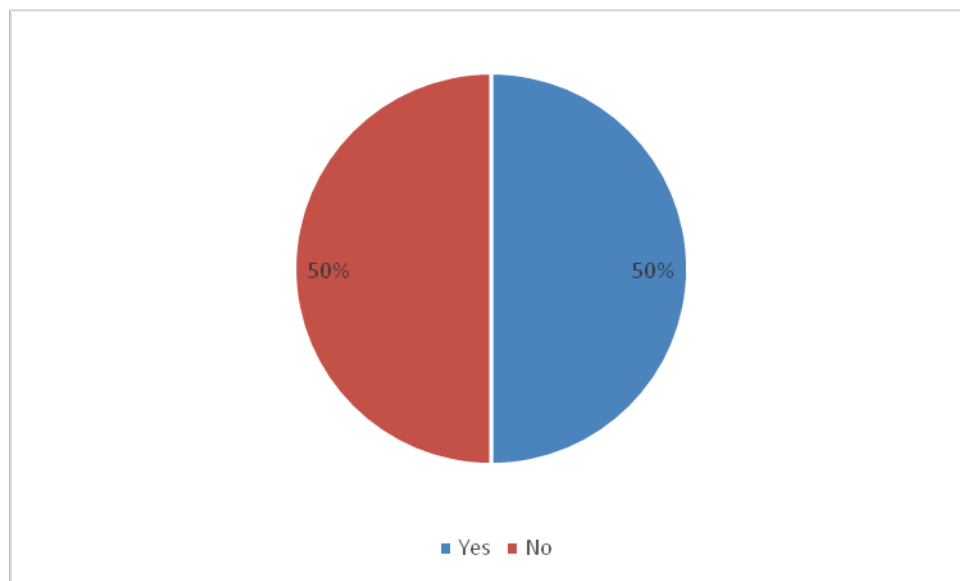


Figure 7: Responses regarding the applications that are having embedded digital workflows and whether digital workflows are being used: OPM.

According to figure: 7, 50% of the respondents indicated that some of the applications have embedded digital workflows and those digital workflows are being used, whereas, the other 50% indicated that there was no embedded digital workflows at their Office.

The first three respondents indicated that they have not seen or heard of the existence of these projects and/or applications having embedded digital workflows and neither do they observed the usage of digital workflow in OPM. The fourth respondent confirmed that the EDRMS and the HCMS have digital workflows, but, confirmed that they are not being used due to numerous reasons, for example, digital

workflow are not customized to the real process of the workflows and the Office adopted digital workflow to the existing processes. The fifth respondent also confirmed that the applications have the workflow that implements the business process but confirmed the low operation of them. And the sixth respondent also confirmed that all of the systems are designed with workflows in mind, they provide the automated version of workflow or business rules for a particular organisation, apart from just automating the existing process, and they also optimize how things were done previously and improved on the efficiency and resources usage.

4.2.10 Explain what benefits digital workflows bring.

As to the question whether respondent observed benefits towards digital workflow, the first respondent indicated that it brings insight to the business processes, for example, one could immediately check on the status of any process as an end-user, routing of documents, for example a digital trail that could route the documents through the organisation, approval, for example, one could set up an approval process that tracks each steps, changes and individual input and also mentioned the power of the audit trail, which document all transactions executed on the systems. The second respondent also answered that there are numerous benefits brought by digital workflows such as the tools to develop customer charters, empowering customers to ask relevant questions and demand services, simplifies the ease of doing business and also making implementation of the processes easier.

The third respondent emphasized the great benefits of digital workflows by stating that it brings insight to the business processes, because with workflow processes software citizen/customers could immediately check on the status of any process as an end-user and Managers could peer into the working of any process they manage, to find bottlenecks that could help them to improve efficiency. The second benefit she mentioned was the issue of routing documents, whereby she indicated that it helps with the routing of documents, to become easier and to have electronic trails of process. Thus if anything goes wrong, one could follow up easier. The last benefit she mentioned was the approvals, stating that most of the Organizations goes through a painful process of e-mailing documents for approvals, because, with digital workflow

process, one could set up an approval process that tracks each step, changes and individual input.

The fourth respondent stated that the benefits of having workflows in place, is that they accelerate work processes and raise productivity, limit forgery, because once the document is signed electronically, it is not easy to imitate someone's signature. The fifth respondent mentioned some of the benefits such as optimization, efficiency, reduction of cost and time, and further stated that when a workflow is automated, information for audit purposes could be retrieved more easily, improve security of data and people would also be held accountable, since logs are recorded and kept for future usage.

4.2.11 Are any of these applications (EDRMS, HCMS, PMS, IFMS) using digital signatures?

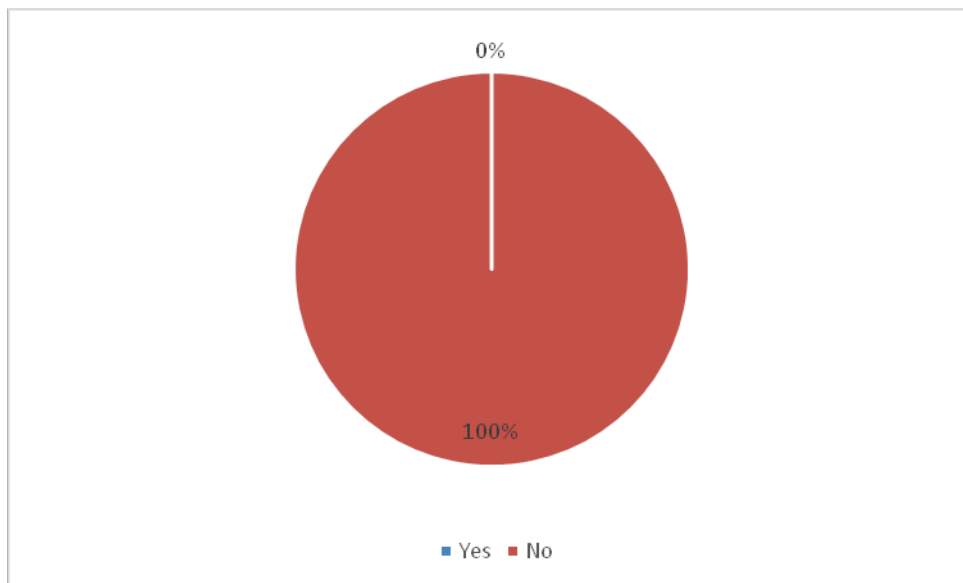


Figure 8: Responses regarding any of the applications that are using digital signatures: OPM.

According to figure 8, 100% of the respondents indicated that none of the projects and/or applications are using digital signatures, and some of the respondents stated this situation is due to the fact that there is no supporting regulatory framework in place for digital signature in Namibia and further stating that some of the projects and/or applications have built-in platforms for digital signature but not customized, hence not implemented.

4.2.12 Do you agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation?

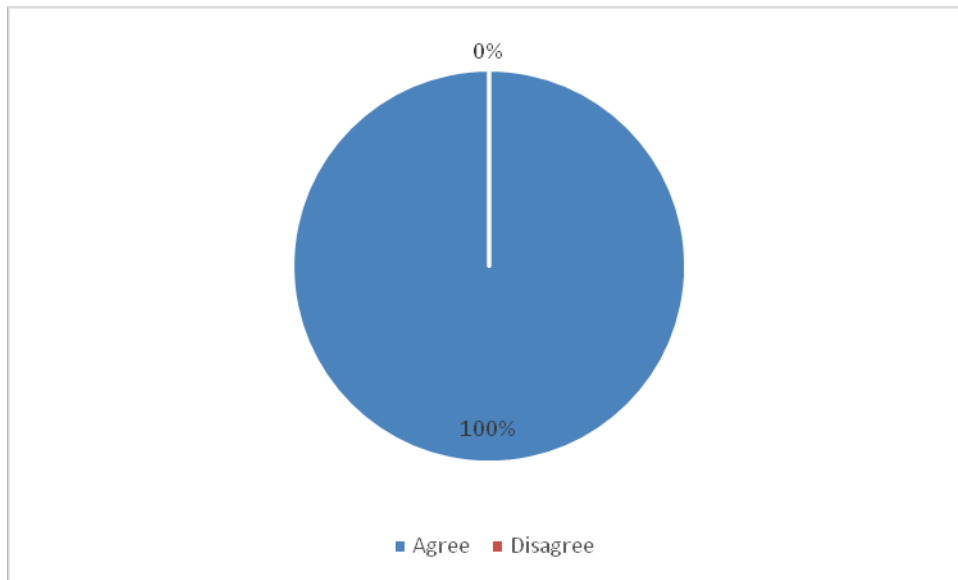


Figure 9: Responses whether the officials agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation: OPM.

According to figure 9, 100% of the respondents answered, yes, to confirm that e-government projects and/or applications are never implemented fully and they are abandoned soon after the implementation. They further stated that there is resistance to change, for as long as there is no change management framework in place and for as long as the mission and vision of the Institution is not clearly indicated and shared with the rest of the employees. They further stated that the actual progress and its impacts are significantly low and indicated that the government is good at developing more systems but not active in making sure of the implementation and usage thereof. They further stated that the situation is also being worsened by the employee turn-over, because at times, the initial officials who were working on a particular project/application often leave for greener pasture and new officials that come on board struggles to complete the projects. This is due to there not being proper hand-over and poor documentation of all steps and processes. They indicated that this challenge results in harder learning curves, delayed project

implementation, which at times leads to projects and/or applications being abandoned.

4.2.13 What are the challenges encountered when implementing/using those applications.

As to the question of whether there are challenges encountered when implementing and using these applications, the respondents confirmed that there are indeed challenges, for example, the lack of confidence in implementing applications, computer illiterate among officials is hampering progress, lack of sufficient human capital, especially the Information Technology officials and insufficient budgets to cater for all the needed resources. The respondents further stated that at times, the applications are not user-friendly, the systems are complicated to some of the users, digital workflows are not linked to actual processes that the officials are using on a daily basis, unreliable internet connection in some of the Offices and the usage of parallel systems, for instance under HCMS one could find that the leave applications are completed manually, forwarded to Human Resources Department for capturing and process in the HCMS, which means that the approvals are done outside of the system. Furthermore, through EDRMS, documents are transported by Drivers from the Registries to different Directorates, and these letters are written directly outside of the system. The respondents also indicated that most of the times officials are not willing to give up their olden ways of doing things and sometimes the systems are not implemented properly and they do not cater for all business processes.

4.2.14 What are the qualification levels of the officials spearheading the implementation of these applications and indicate whether they are capacitated to implement these projects/applications?

Most of the respondents indicated that in most cases the officials have the right qualifications, from various fields, and in some of the cases the qualifications are very low and not even related to the projects and/or applications being implemented, and there are no capacity building programs to implement these systems. They further stated that these processes need Process Experts, not just the Information Technology officials. The respondents have also cautioned that decision makers should do away with the belief that Information Technology is here to secure the

process of misalignments and problems, thus little efforts was spent on actual sitting with the process users and owners, mapping out the process and then design together with them until the final product is confirmed and agreed upon by both stakeholders. Investigating further also brought some of the respondents to confirm that some of the hired Consultants are not service and customer oriented, because, in most cases, the Consultants oversell themselves and their products and later on they will realize that they are not at the position to cater for all the needs of the users.

4.3 Classification of the data from the Ministry of Finance

This study was carried out among the staff members of the Ministry of Finance in Windhoek. Since the overall target of the sample size for the interviews was 24 officials, therefore, 6 staff members from the Ministry of Finance were interviewed and the results are displayed below.

4.3.1 Presentation and analysis of data from the interviews Section A: General information

4.3.2 Age Group

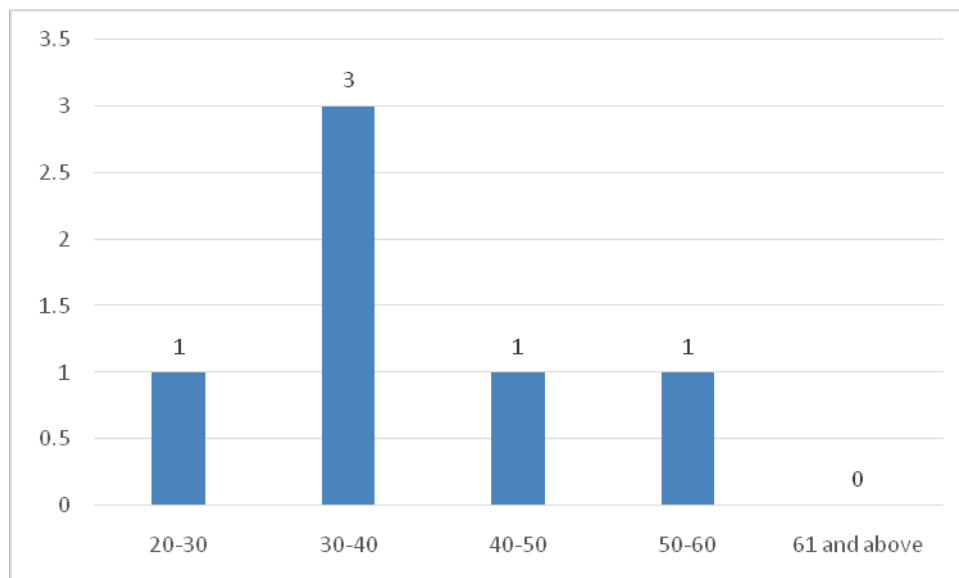


Figure 10: An indication regarding the age group of the officials from MOF

According to figure 10, the respondents that were interviewed were 6, therefore, 17% were between the ages of 20-30, 50% were between the ages of 30-40, 17% were between the ages of 40-50, 17% were between the ages of 50-60.

4.3.3 Gender

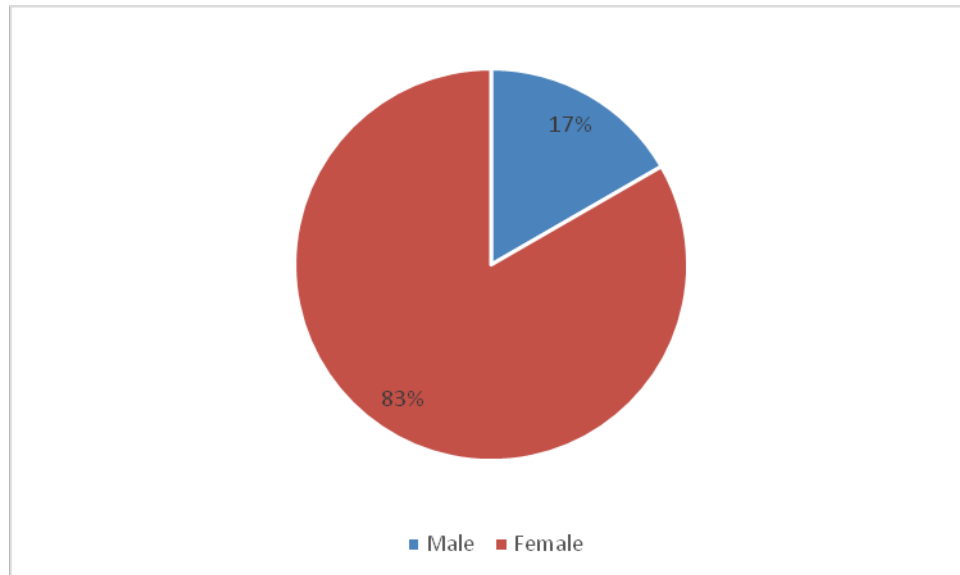


Figure 11: Responses regarding the gender category of the officials from MOF.

According to figure 11, the majority, 83%, of the respondents were females; whereas the minority male, 17%.

4.3.4 Level of education

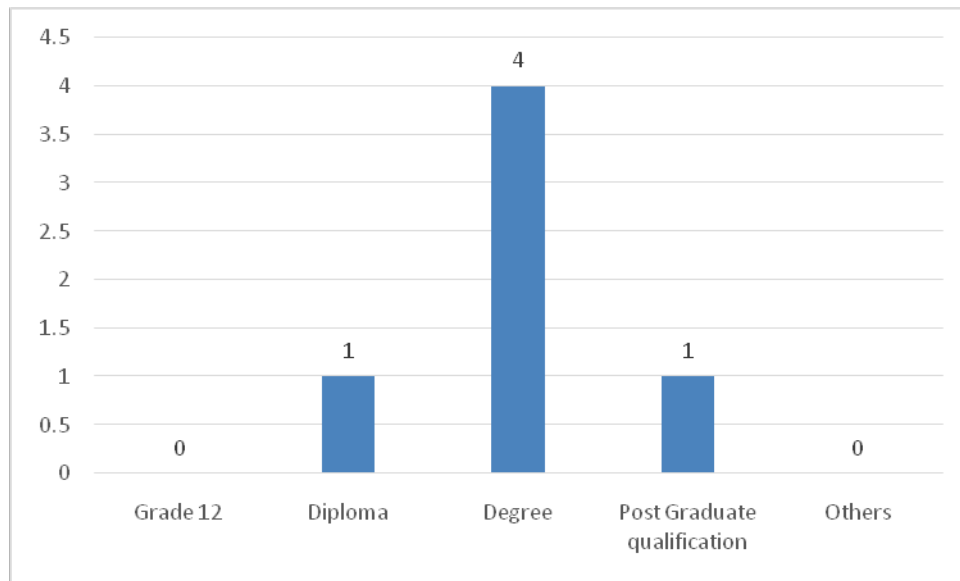


Figure 12: Responses regarding the level of education of the officials from MOF.

According to figure 12, 17% is have a Diploma, 66% have Degrees, 17% have Post Graduate qualifications.

4.3.5 Job Titles

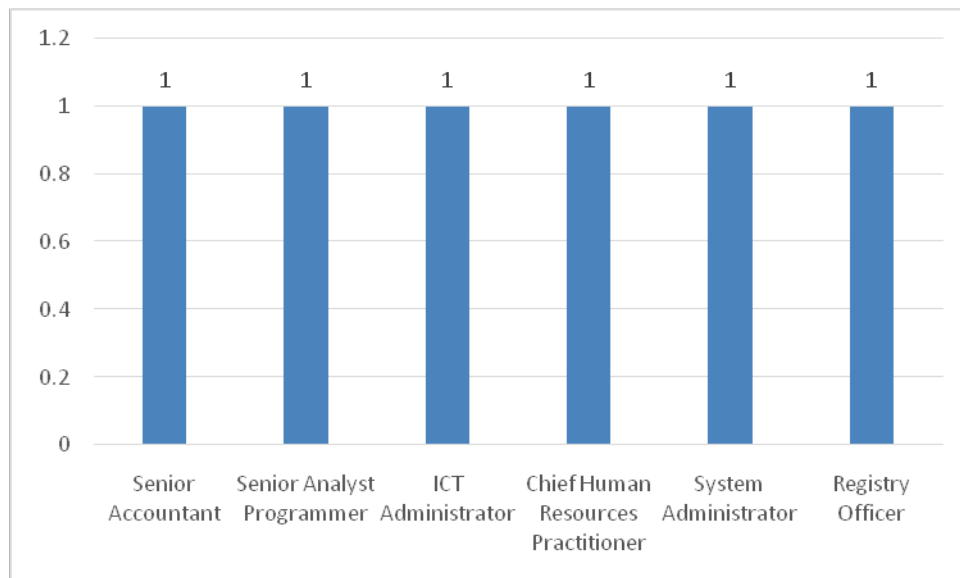


Figure 13: Responses regarding the Job Titles of the officials from the Ministry of Finance.

According to figure 13, the respondents came from various Departments, various levels of the structure, and their job titles are listed above.

4.3.6 Number of years employed at the Ministry of Finance.

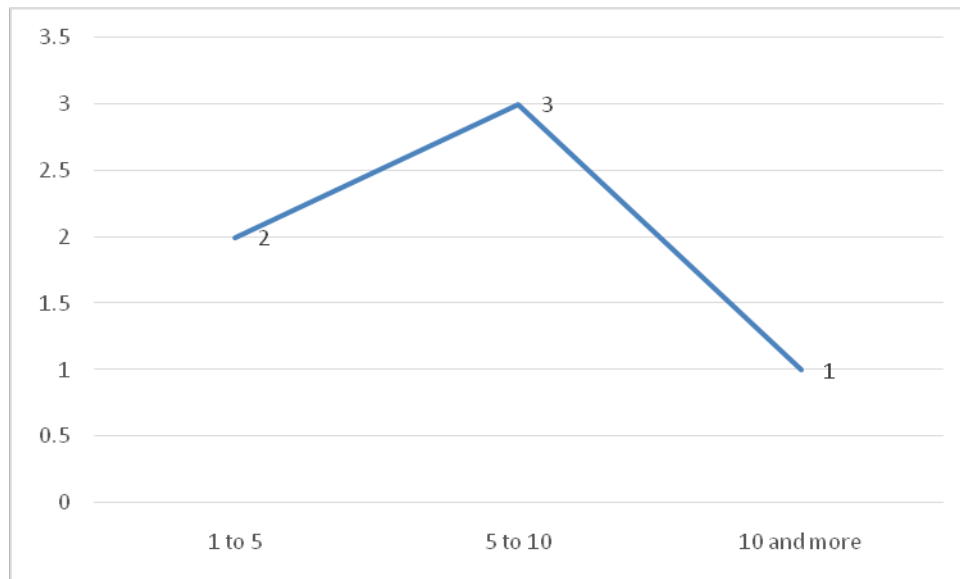


Figure 14: Responses regarding the number of years employed at the Ministry of Finance.

According to figure 14, 33% of the respondent worked at MOF between 1 and 5 years, 50% worked there between 5 and 10 years and 17% worked there between 10 and more years.

Section B: The status of e-government projects and/or applications in the Ministry of Finance.

4.3.7 Explain the meaning of e-government concept and its benefits.

The researcher got various responses when respondents were asked to explain, in their own words, the meaning of the e-Governance concept and its benefits. The first respondent stated that e-government refers to the use of Information and Communication Technology to improve the activities of the Public Sector Organisations. The second respondent indicated that e-government is the use of Information Communication Technology, to improve the activities of public sector organisations, however, she further elaborated more that some definitions limit e-government to Internet-enabled applications only, in order to communicate only between government and outside groups, therefore, all digital Information Communication Technologies must be included in the public sector and the private sector activities. The third respondent stated that e-government is the use of the Internet to deliver government services and information to its people.

The forth respondent explained e-government as the process to reform the way the government works and share information, engages citizens and delivers services to external and internal clients for the benefits of both the government and the clients that they serve. Specifically, government harnesses information technologies such as World Wide Web and mobile computing to reach out to citizens, businesses, and other arms of the government. She further stated that e-government is a process that deals with the transformation of the government, in order to provide efficient and convenient services to the citizens, business and other government departments. The fifth respondent also commented on the usage of the Information Communication Technologies in order to improve the activities and the interactions between the citizens and the government Offices. The last and the sixth respondent was of the opinion that e-government is a system that was developed to ensure that policies can be accessed by all citizens through the internet.

To answer the question of the benefits of e-government, the first respondent stated that the benefits of e-government is that it allows people, businesses and the government sectors to access government information at any time, it reduces cost and level of organisational processes, by streamlining and re-organizing operating procedures, it improves the performance of the government agencies and deliver public service effectively and efficiently to all stakeholders. The second respondent highlighted the benefits of e-government as the mode to improve government processes, such as the e-administration, connecting citizens through e-citizens and e-services and also that it build external interactions through the e-society. The respondent further emphasized that once the aforementioned benefits are implemented, they will respectively address the issue of bureaucratic in government services.

The third respondent indicated the benefits she observed are that of the efficient and cost effective measures that promote transparency in the government services as well as in the private sector. The fourth respondent indicated that the benefits of e-governance are that of reducing cost in terms of cutting cost through avoiding unnecessary travelling. She further touches on how e-government promotes transparency, curbs anti-corruption, and promotes accountability through less

human interactions, less fraud, and ease of tracking public procurement contracts. The respondent is also of the opinion that e-government will empower citizens through access to information, for example, the sharing of knowledge on specific fields, such farming and marketing of the agricultural products. The fifth respondent also supports the issue of curbing corruption by stating that e-government will bring less corruption, because most of the activities will be done electronically. Computers do not identify friends and families but it increases transparency. The last and the sixth respondent highlighted the benefits of e-government as that of bringing low cost effective helps to improve transparency, accuracy and dissemination of information between government and its citizens.

4.3.8 Which of the 4 (EDRMS, HCMS, PMS and the IFMS) E-Government projects and/or applications is fully implemented and utilized in the Ministry of Finance?

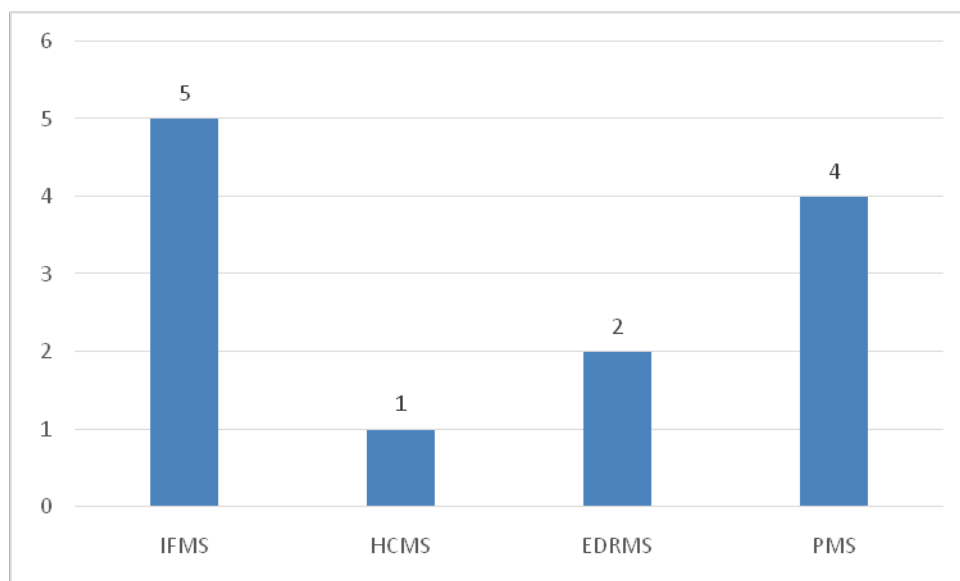


Figure 15: Responses regarding the 4 E-Government projects and/or applications that are fully implemented and utilized in the Ministry of Finance.

According to figure 15, the majority of the respondents, 83%, indicated that the Integrated Financial Management System is fully implemented and utilized at the Ministry of Finance followed by 67% Performance Management System, followed by 33% Electronic Documents and Records Management System and then followed by 17% Human Capital Management System.

4.3.9 Are any of the applications having embedded digital workflows and whether digital workflows are being used?

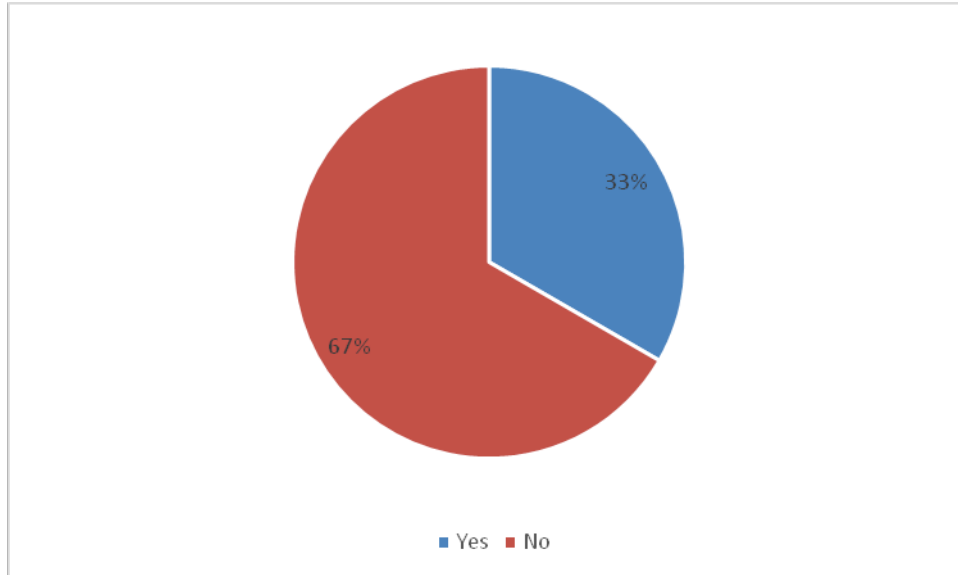


Figure 16: Responses regarding the applications that have embedded digital workflows and whether digital workflows are being used: MOF.

According to figure 16, 33% said yes and 67% said no. As per the responses regarding whether the respondents were aware of any of the applications having the embedded digital workflows, the first and the second respondents confirmed that only IFMS has the embedded digital workflows and it is being used in the Ministry. They further confirmed that most of the applications have embedded digital workflows, however the workflows are not fully utilized, because users are still adamant to leave their manual ways of doing things. The rest of the respondents stated that there were no embedded workflows and if they were there then they were not exposed to them.

4.3.10 Explain what benefits digital workflows bring.

The researcher asked the respondents to indicate whether there were benefits that digital workflows could bring, hence the first respondent indicated that with digital workflows one could assess the status of any process quickly and easily and also stated that digital workflows allows supervisors to investigate the trail that could route documents throughout the organisation, just in case of a lost document. The respondent further stated that another benefit of having digital workflow in place is

that the historical records are logged and maintained properly by capturing them, indexing them and manages them through their life cycles.

The second respondent indicated that digital workflow improves productivity, because, the automated digital workflows reduces time spent on manual tasks. And after all, workflows enables the Managers and the Supervisors to see what is happening with the critical business processes at every point along the process and the workflow software enables organisations to react quickly to market changes through process modifications. The third respondent said that digital workflows, especially that of the Electronic Documents and Records Management Systems are preventing the misfiling and misplacement of documents and records, it enables easier retrieval of documents and records speedily. The last three respondents also supported the third respondent by stating that digital workflows of the Electronic Documents and Records Management Systems are cost cutting by way of paper savings, as records would be stored in computer systems and then being backed up with external devices.

4.3.11 Are any of these applications (EDRMS, HCMS, PMS, IFMS) using digital signatures?

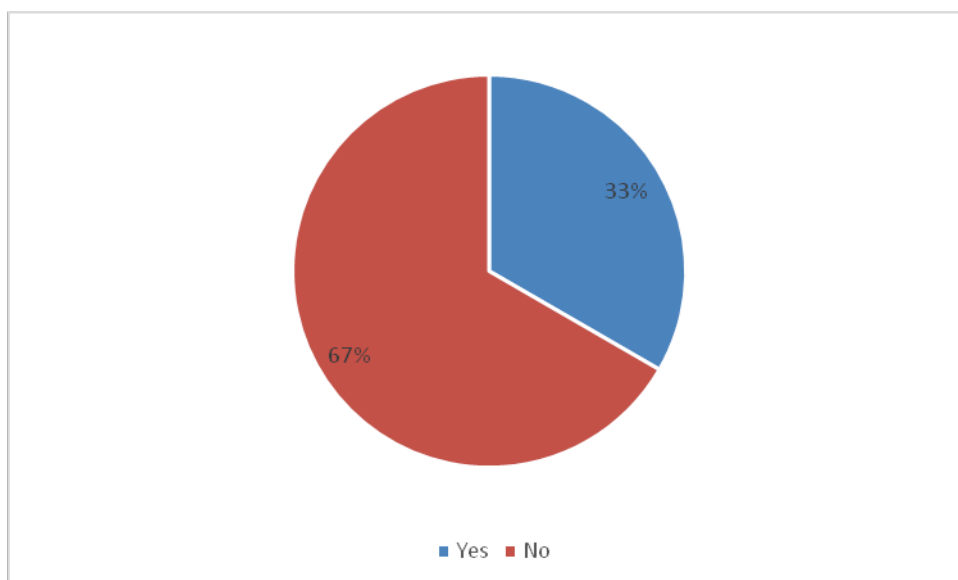


Figure 17: Responses regarding any of the applications that are using digital signatures: MOF.

According to figure 17, 33% said yes and 67% said no. The first two respondents stated that the IFMS which is the oracle e-business suites and the only fully implemented application in their organisation, could say yes, that it uses digital signature through the approval processes. They further stated that the application has digital signatures, which could be done using the Oracle workflow which supports password based signatures for notifications based on the Oracle Application Object Library password. The rest of the respondents indicated that they were not aware of any application in their organisation using digital signatures. Some of them further stated that the reason they are not aware of digital signature could be because of the absence of the legal framework, for example the Electronic Transaction Bill, which is still pending in Namibia.

4.3.12 Do you agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation?

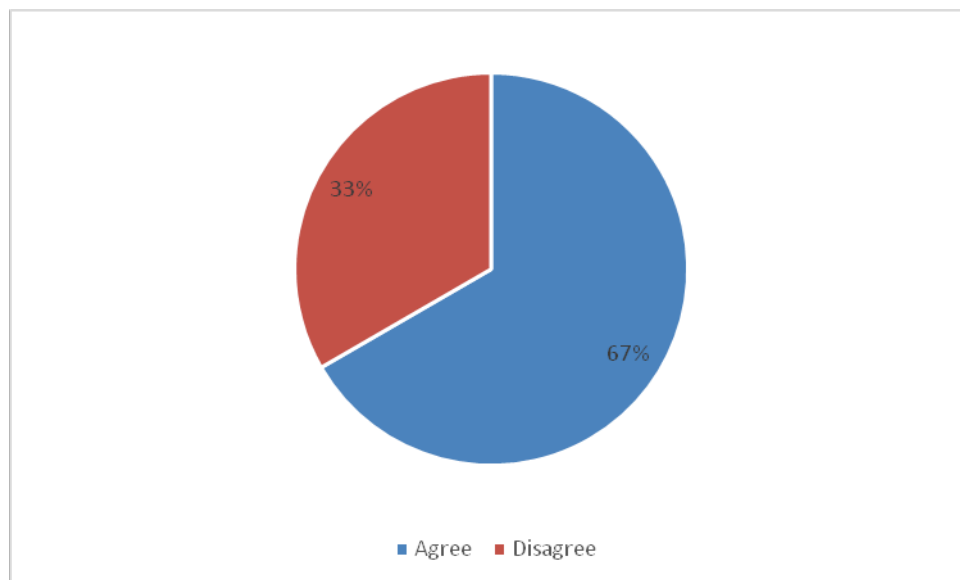


Figure 18: Responses whether the officials agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation: MOF.

According to figure 18, 67% of the respondents agreed and 33% disagreed. The respondents that agreed to the above statement stated that the government always

has good initiatives and introduces good projects through benchmarking with other countries. They further stated that at times the projects and/or applications cost the government a lot of money but are never implemented, and in cases where they are implemented the users of the systems/applications are not using them. Therefore, some of the projects are completed on time but never designed with all the necessary features and functions as specified in the terms of references. The respondents further stated that the failure of these projects and/or applications is a result of lack of support and in most cases from the top management side, because most of the time the management do not give full support to the implementation team.

Another crucial point that derived from these respondents is the issue of lack of skill transfers from the Consultants that are designing and providing the software's, because, most of the time there are no proper service agreement, no mechanisms and measurements in place to make sure that the Consultants do deliver as per the agreement and that should they fail to deliver they will be held accountable. Furthermore, the respondent that agreed to the statement stated that when it comes to the EDRMS, the records are not properly treated as stipulated by the National Archives Act, Act number 12 of 1992, the fact that the Officers-in-Charge of Archives are not nominated and selected by the Institutions, registries are not centrally located, which leaves the registries to operate on their own and as the official see fit, because they are separated from the Institutions.

The respondents that disagreed, stated that the IFMS is fully implemented and is being used up to date and they further stated that the rest of the applications such as the HCMS, PMS and EDRMS are work in progress and does not warrant them the status of never implemented or abandoned soon after the implementation.

4.3.13 What are the challenges encountered when implementing/using those projects/applications.

The respondents indicated that some of the challenges encountered when implementing these projects and/or applications are the lack of knowledge on the usage of these applications by the core implementing team members and that the implementing team are usually the officials with responsibilities and not dedicated to

the projects, hence the project deliverables are always delayed. The respondents further stated that other challenges are the lack of change management, rigid corporate culture and failure to manage organisational user's resistance to change and to use new systems and lack of experienced Project Managers and leadership. They also indicated that sometimes the systems are not user-friendly and very slow, which discourages users and lack of proper awareness among the expected users.

4.3.14 What are the qualification levels of the officials spearheading the implementation of these applications and indicate whether they are capacitated to implement these projects/applications?

According to the respondents, the qualification levels of the officials spearheading the implementation of these projects and/or applications varies from responsibilities, for example, they indicated that in most cases the Accounting entries are usually handled by officials with accounting qualifications, while the architectural designs are handled by those with software engineering skills, whereas the capacity building is usually conducted by the technical team with qualification in software engineering. Some of the respondents indicated that the officials have the right qualifications, however, when it comes to the implementation and the usage of these projects/applications, more training is required. Not all users of these applications are from Information Technology backgrounds, therefore to use these systems require constant trainings. In conclusion the respondents stated that in most of the cases the Project Managers are Directors and Deputy Directors, the most senior officials heading Divisions, some of them are the officials without knowledge in Project Management aspects, therefore, it is advisable that they take up Project Management classes, in order to implement projects and applications successfully.

4.4 Classification of the data from the Ministry of Information Communication Technology

This study was carried out among the staff members of the Ministry of Information & Communication Technology in Windhoek. Since the overall target of the sample size for the interviews was 24 officials, therefore, 6 staff members from the Ministry of

Ministry of Information & Communication Technology were interviewed and the results are displayed below.

4.4.1 Presentation and analysis of data from the interviews

Section A: General information

4.4.2 Age Group

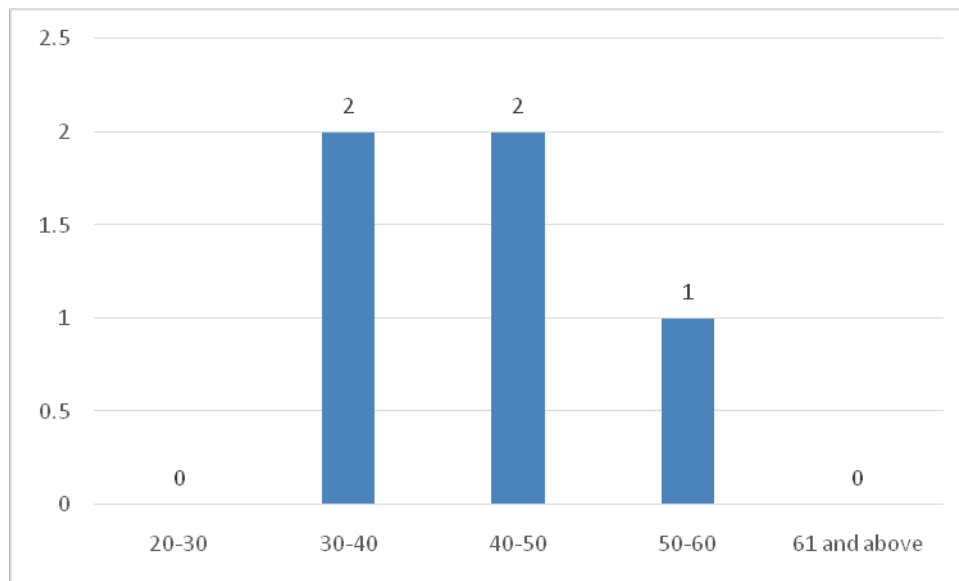


Figure 19: The age group of the officials from the Ministry of Information & Communication Technology.

According to figure 19, the respondents that were interviewed were 6, therefore, 33% were between the ages of 30-40, 33% were between the ages of 40-50 and 17% were between the ages of 50-60.

4.4.3 Gender

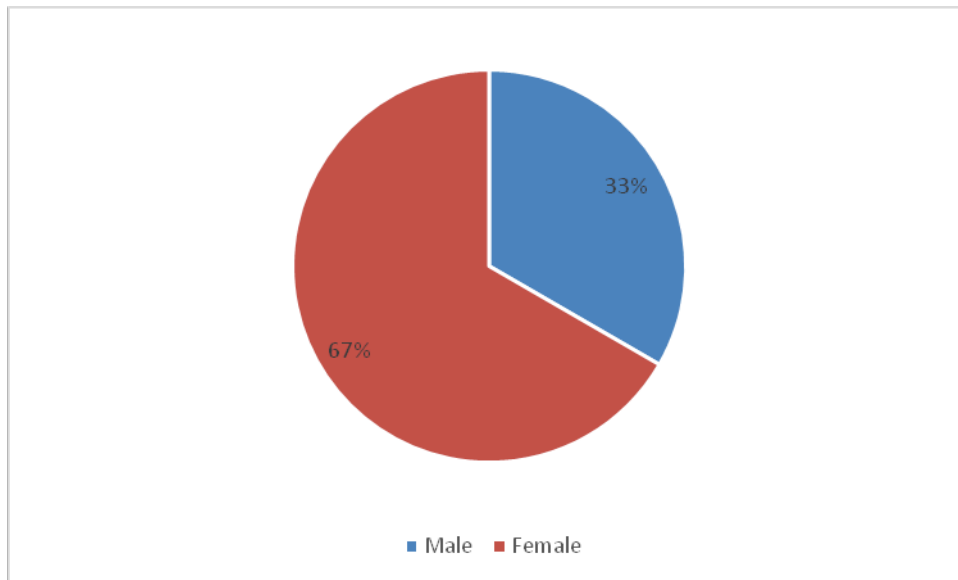


Figure 20: Responses regarding the gender category: MICT.

According to figure 20, the majority, 67%, of the respondents were females, whereas the minority, 33%, was male.

4.4.4 Level of education

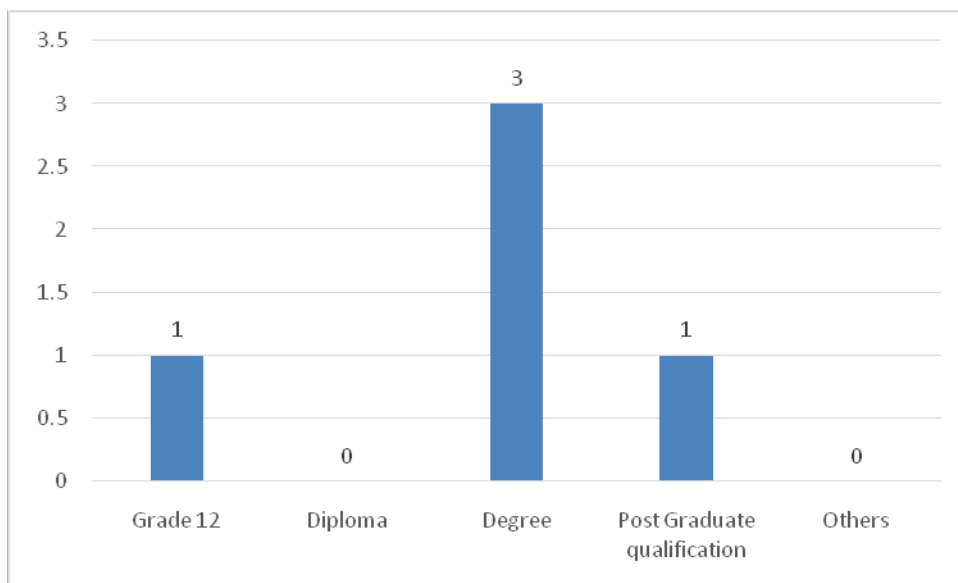


Figure 21: Responses regarding the level of education.

According to figure 21, 17 % have Grade 12, 50% have Degrees, 17% have Post Graduate qualifications.

4.4.5 Job Titles

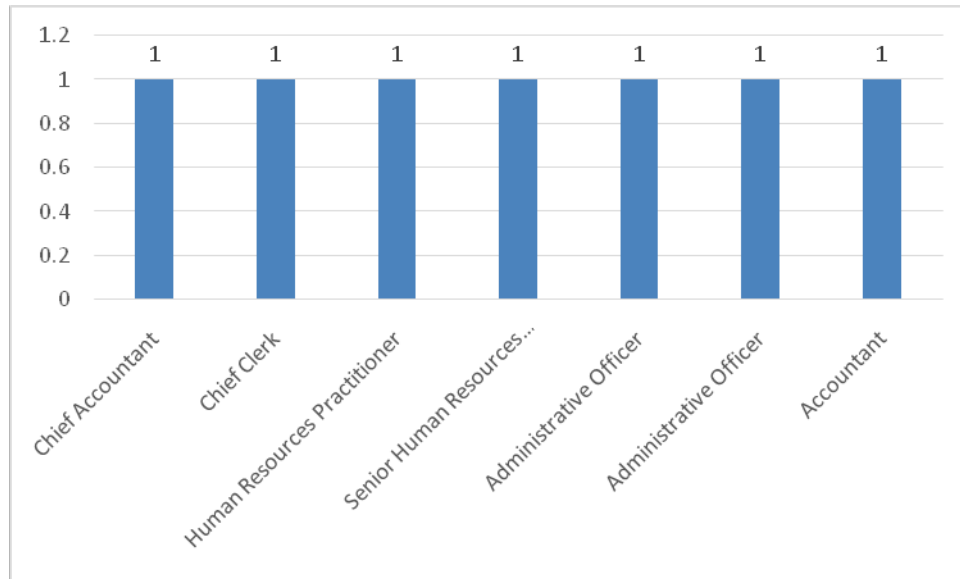


Figure 22: Responses regarding the Job Titles: MICT.

According to figure 22, the respondents came from various Departments, various levels of the structure, and their job titles are as listed above.

4.4.6 Number of years employed at the Ministry of Information & Communication Technology

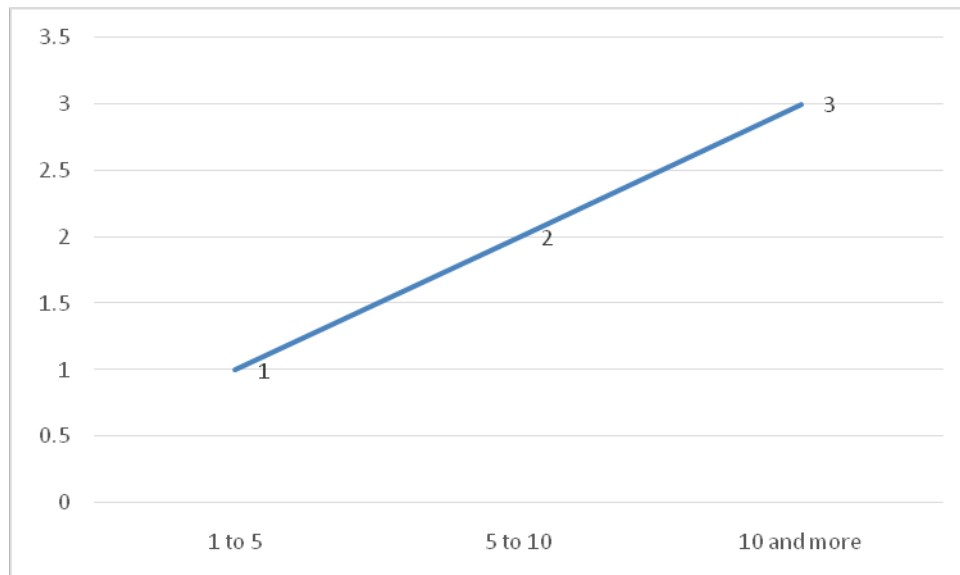


Figure 23: Responses regarding the number of years employed at the Ministry of Information & Communication Technology.

According to figure 23, 17% of the respondent worked at Ministry of Ministry of Information & Communication Technology between 1 and 5 years, 33% worked between 5 and 10 years and 50% worked there for more than 10 years.

Section B: The status of e-government projects and/or applications in the Ministry of Information Communication Technology

4.4.7 Explain the meaning of e-government concept and its benefits.

The respondents from the Ministry of Information Communication Technology explained the meaning of e-government as the concept that facilitates the utilization of the Information and Communication Technologies, in order to improve the activities of the Public Sector. The respondents further stated that e-government enables the government to provide services on a 24/7 basis for the benefits of the citizens, businesses, Government institutions and international visitors. Last but not least, they stated that e-government is the way in which government uses Information Communication technology to enhance transparency and accountability and provides opportunities for people to participate in the democratic processes, by providing citizens and businesses with more convenient access to government information and services.

The respondents stated there are various benefits towards e-government, such as to improve government processes and services, it enables citizens to be connected, it enhances interactions and it affords officials to act on activities with less resources, for instance the circulation of documents and the flow of information will be speedily and easily.

4.4.8 Which of the 4 (EDRMS, HCMS, PMS and the IFMS) E-Government projects and/or applications is fully implemented and utilized at MICT?

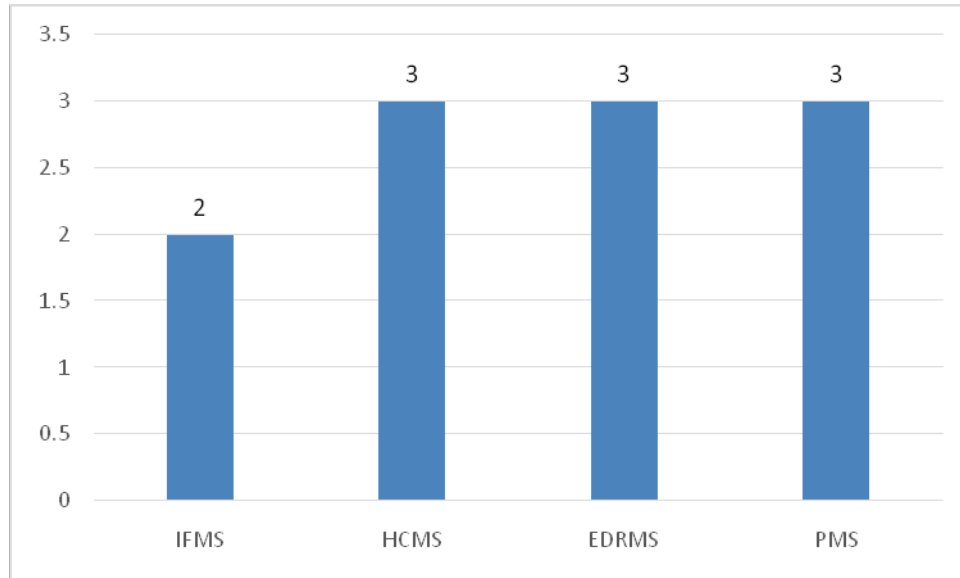


Figure 24: Responses regarding which of the 4 E-Government projects and/or applications is fully implemented and utilized in MICT.

According to figure 24, the respondents indicated that 3 systems are fully and equally implemented, that is 50% for Electronic Documents and Records Management System, 50% for the Human Capital Management System, and 50% for the Performance Management System, followed by followed by 33% of the Integrated Financial Management system.

As per the explanation of the respondents, they indicated that the Human Capital Management System is not fully implemented, because of staff turnover and the system also has some shortcomings, for example. The current operating system or the Oracle and Java has expired and there is need for the new software to be installed. As for the Performance Management System, they indicated that the project is fully implemented, since most of the staff members are submitting their Performance Agreement on a quarterly basis; however, there are no control mechanisms to enforce all staff members to comply in terms of using it.

4.4.9 Is any of the applications having embedded digital workflows and whether digital workflows are being used?

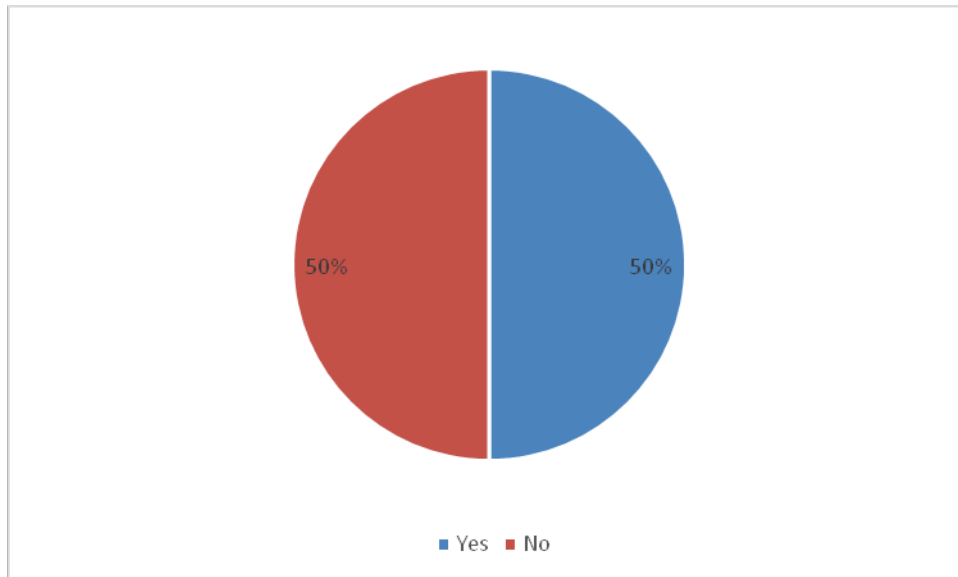


Figure 25: Responses regarding whether any of the applications having embedded digital workflows and whether digital workflows are being used: MICT.

According to figure 25, 50% of the respondents confirmed that digital workflow is being used in some of the applications, whereas the other 50% of the respondents indicated that most of the applications are not fully operational and that there is no clear way forward regarding the availability and the usage of digital workflows.

4.4.10 Explain what benefits digital workflows bring.

The respondents stated that it improves workflow communication, it gives competitive advantage, it provides a trail that could route documents throughout the organization, for example, the historical records are logged and maintained throughout their lifecycles and it improves customer service from predictable processes and responses. The respondents further stated that if digital workflows were implemented successfully, it was going to assist greatly with the paper based processes, because they could be replaced by the electronic/digital workflows which would call for the saving of time and at the same time improve productivity and reduce paperwork.

4.4.11 Are any of these applications (EDRMS, HCMS, PMS, IFMS) using digital signatures?

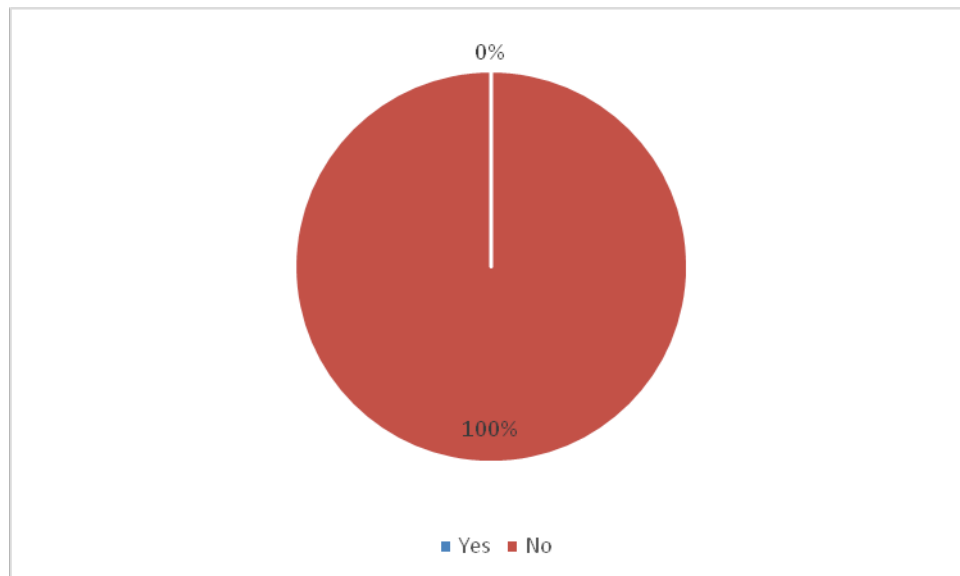


Figure 26: Responses regarding any of the applications that are using digital signatures: MICT.

According to figure 26, 100% of the respondents stated that all of the applications are not using digital signatures at all.

4.4.12 Do you agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation?

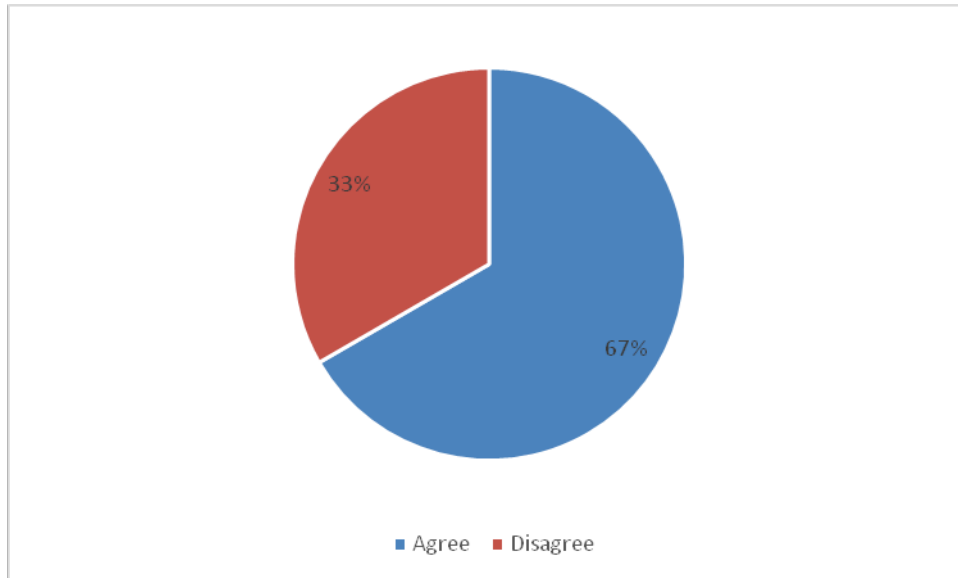


Figure 27: Responses whether the officials agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation: MICT.

According to figure 27, 67% of the respondents agreed and 33% of the respondents disagreed. The ones that agreed, elaborated more that the projects and/or applications are never implemented fully, because, in most case the human days of the contracted companies always comes to an end before the projects and/or applications are fully implemented and in most cases the local team members are not capacitated by then and there is always no good monitoring systems in place. They further explained that there is no commitment by top management, insufficient funds to sustain the projects and/or applications and the usage of the external Consultants that calls to be paid yearly maintenance fees. Another fact which was highlighted by the respondents was the issue of the top officials, that do not fully understands the Information Communication Technology concepts, hence they end up not giving it full attention.

4.4.13 What are the challenges encountered when implementing/using these applications.

The respondents confirmed that there are numerous challenges when it comes to the implementation and the usage of these applications/systems, stating that the internet is always slow in some corners of the country during normal working hours and the lack of up to date computers and software. They further stated that in some cases, the Head of the implementation team is either have little or no knowledge of the application; hence, it becomes a challenge for that official to spearhead the process into the right direction.

4.4.14 What are the qualification levels of the officials spearheading the implementation of these applications and indicate whether they are capacitated to implement these projects/applications?

As to the question of the qualification of the officials spearheading the implementation of these applications and whether they were capacitated to implement the projects/applications, the respondents stated that in most cases they are Information Technology specialists in terms of qualification, but they lack experience on contractual agreements, hence not making sure that all components of the contractual agreement are in place.

4.5 Classification of the data from the Office of the Auditor General

This study was carried out among the staff members of the Office of the Auditor General in Windhoek. Since the overall target of the sample size for the interviews was 24 officials, therefore, 6 staff members from the Office of the Auditor General were interviewed and the results are displayed below.

4.5.1 Presentation and analysis of data from the interviews

Section A: General information

4.5.2 Age Group

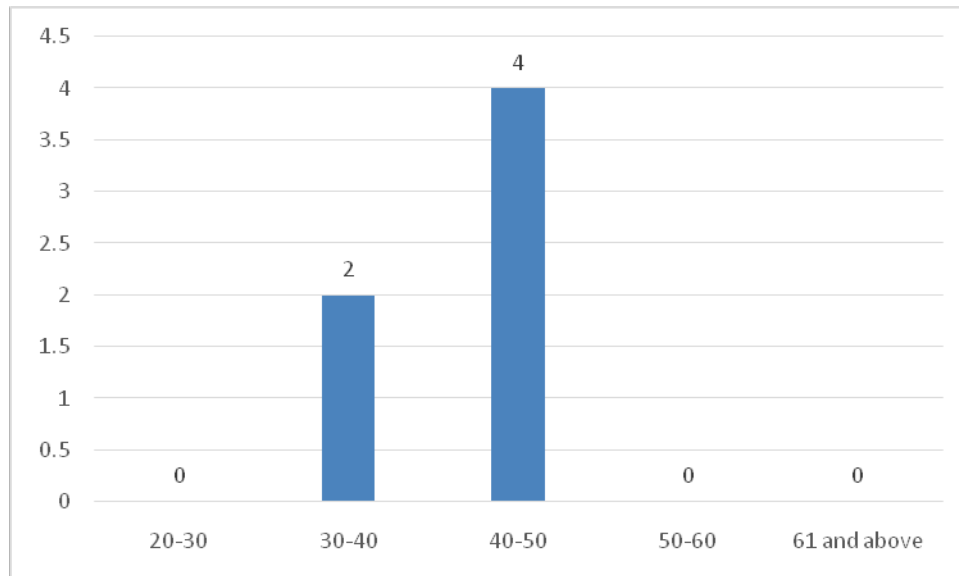


Figure 28: An indication regarding the age group of the officials from the Office of the Auditor General.

According to figure 28, the respondents that were interviewed were 6, therefore, 33% were between the ages of 30-40, and 67% were between the ages of 40-50.

4.5.3 Gender

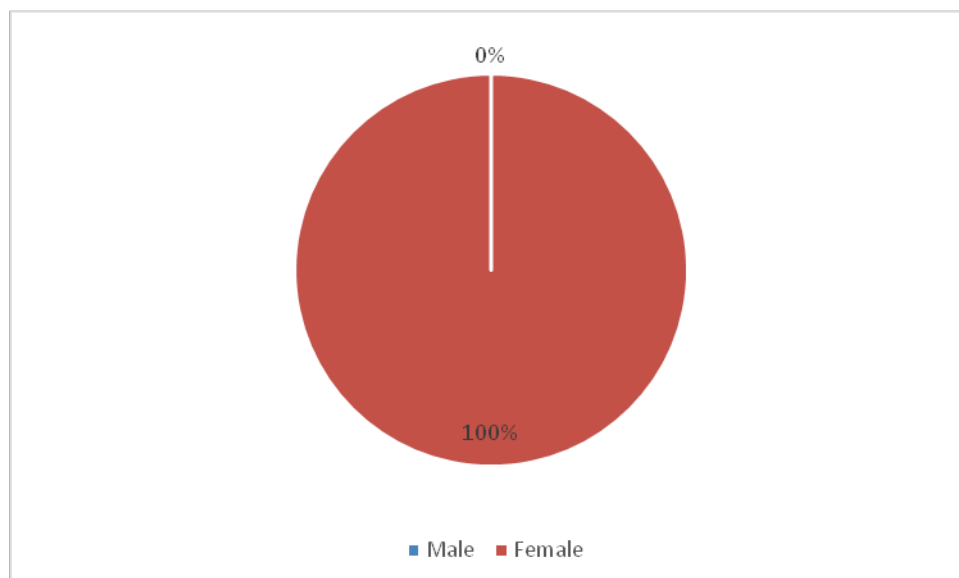


Figure 29: Responses regarding the gender category: OAG

According to figure 29, 100 % of the respondents were females and none of the male showed interest in the interviews.

4.5.4 Level of education

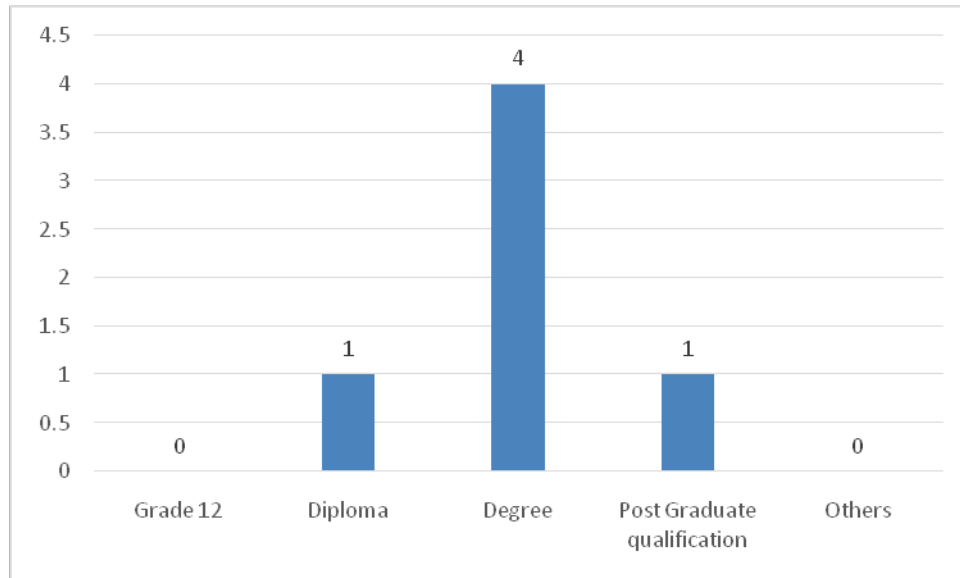


Figure 30: Responses regarding the level of education: OAG.

According to figure 30, 17% have a Diploma, 67% have Degrees, 17% have Post Graduate qualifications.

4.5.5 Job Titles

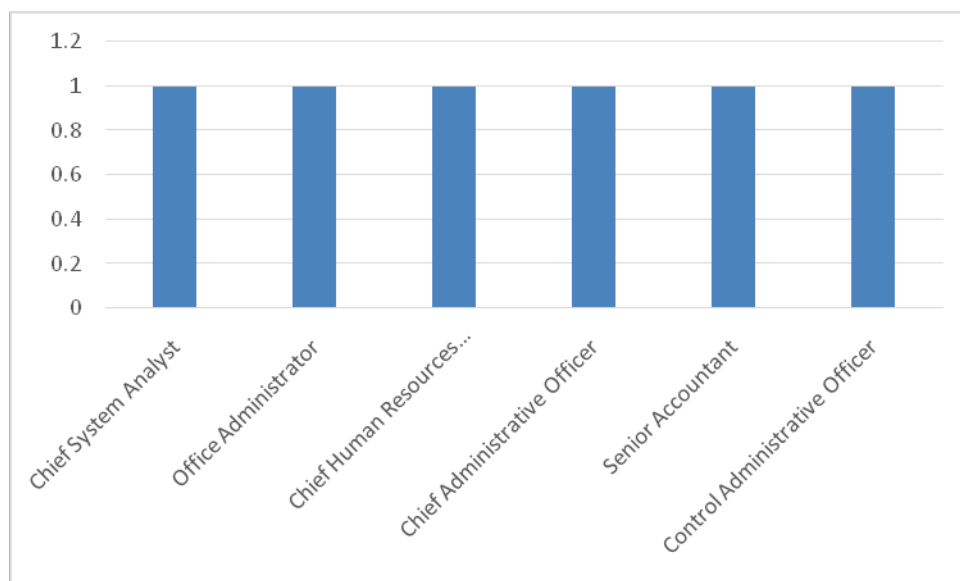


Figure 31: Responses regarding the job titles: OAG.

According to figure 31, the respondents came from various Departments, various levels of the structure, and their job titles are as listed above.

4.5.6 Number of years employed at the Office of the Auditor General

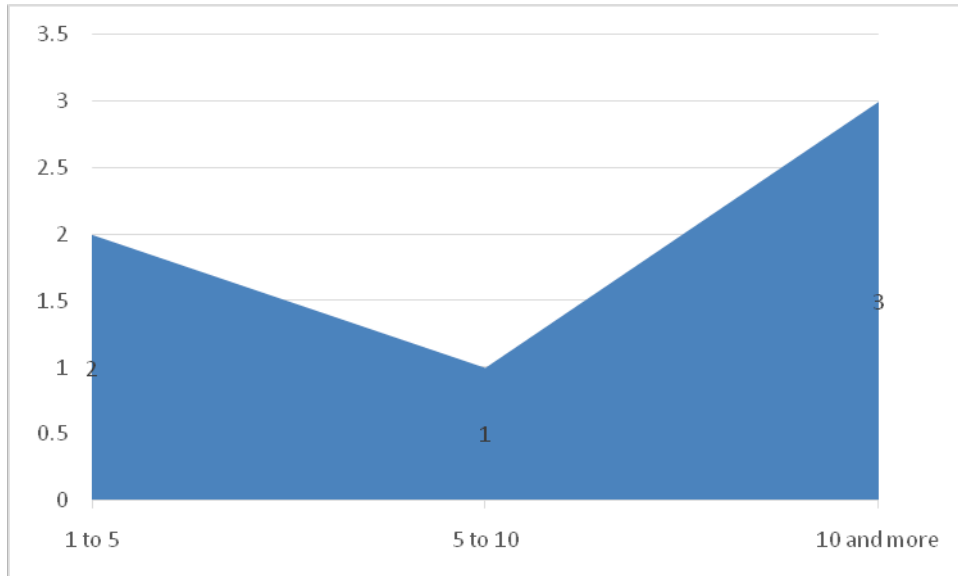


Figure 32: Responses regarding the number of years employed at the Office of the Auditor General.

According to figure 32, 33% of the respondent worked at the Office of the Auditor General between 1 and 5 years, 17% worked between 5 and 10 years and 50% worked there for more than 10 years.

Section B: The status of e-government projects and/or applications in the Office of the Auditor General

4.5.7 Explain the meaning of e-government concept and its benefits.

The first respondent explained that e-government is the use of Information Communication Technologies and that it enhances and improve government services; for example, it promotes efficiency, transparency and accountability. She further stated that e-government is cost effective and it reduces costs of running a government. It also helps to build trust between government and the citizens, especially when services are faster and satisfactory. The second respondent also echoes the same sentiment by stating how e-government helps to improve the activities of the public sector organizations. The third respondent touches on how e-government is integrating various stand-alone systems and services between

government to customer, government to business, and government to government as well as the back office processes and facilitates the interaction within the entire government framework.

The fourth respondent stated that e-government is the promotion of a paperless society, where a lot of resources can be saved in the long run and that information would be exchanged quickly between two or more parties and that decisions could be taken quicker as well as actions done quicker, since it provides facilities for more people to be addressed at the same time. Most of the respondents emphasize the benefits of e-government to be that of improving government services, cutting process costs, and managing process performance. They also commented that Information Communication Technology has become an indispensable tool and key vehicle which deliver services in a manner that meets public expectations.

4.5.8 Which of the 4 (EDRMS, HCMS, PMS and the IFMS) E-Government projects and/or applications is fully implemented and utilized in your OMAs?

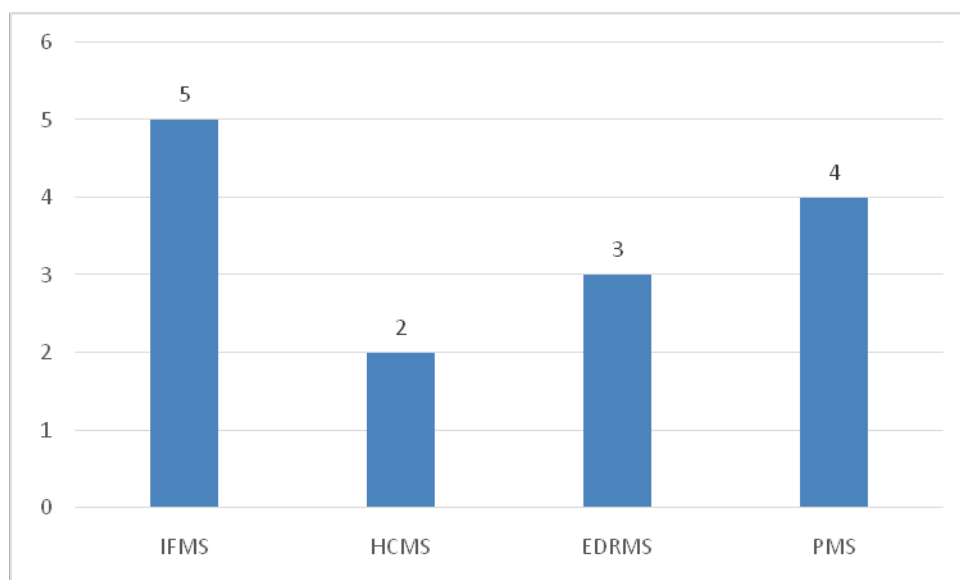


Figure 33: Responses regarding which of the 4 E-Government projects and/or applications is fully implemented and utilized in your OMAs? Which projects and/or applications are not fully implemented in OAG.

According to figure 33, 83% of the respondents indicated that the Integrated Financial Management System is fully implemented, followed by 67% for

Performance Management System, followed by 50% for the Electronic Documents and Records Management System and 33% for the Human Capital Management System.

As per the explanation of the respondents, some of the respondents indicated that the EDRMS is implemented but it is not fully functioning, because, some of the Departments are not scanning and uploading records into the system. Some of the respondents stated that the HCMS is not fully implemented, due to poor availability of technological equipment such as the network, servers, availability of funds and internet connection in the government. As for the PMS, they said that it is partially implemented, however, it is time consuming, because, a lot of time is spent on the compilation of performance agreements and reviewing them. Some of the respondents also touched on the issue of administrative aspects that are not in place, for example, some of the Ministries are not complying with the issue of having their Filing Systems compiled and to be approved by the National Archives of Namibia, before they could use them to file their records electronically.

4.5.9 Is any of the applications having embedded digital workflows and whether digital workflows are being used?

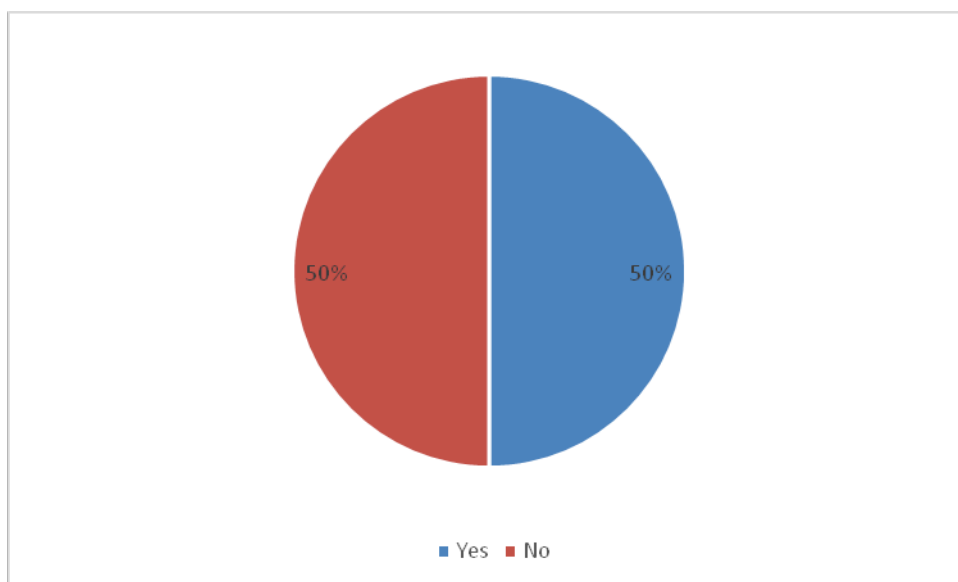


Figure 34: Responses regarding whether any of the applications are having embedded digital workflows and whether digital workflows are being used: OAG.

According to figure 34, 50% of the respondents were aware of the applications having embedded digital workflows and 50% of the respondents stated they were not aware of the embedded digital workflows in the applications used in their Office.

The respondents that were not aware of the presence of digital workflows stated that its absence was caused by poor infrastructure of the Information Communication Technologies, and not all staff members having access to internet. Some of the staff members are also computer illiterate. The respondents that confirmed the presence of digital workflows stated that they are needed to improve productivity, accountability, faster reaction and to promote transparency.

4.5.10 Explain what benefits digital workflows bring.

The respondents explained that digital workflows is helping to drive work and to leverage information across the government. It helps officials to make better decisions and it also enables staff members to work faster and smarter in order to achieve more with the available information and resources. The respondents further explained that digital workflows brought more benefits, for example, it reduced budget, by way of less printing, easy circulations of information, through e-mails and the information could also be accessed by all on the system. Furthermore, the respondents explained how digital workflows are speeding up the everyday processes in the Offices, stating that instead of submitting a form by hand, one could fill it out online, which automatically delivers it to the right person and submits once completed.

The respondents confirmed that the automated processes help reduce the time spent on manual tasks, which improves productivity and contribute to the efficient of daily activities. The respondents further explained that the other benefits are that some of the reports with graphical data and better visualization, are one of the major beneficial features of the automated workflow, because, the detailed reports from the workflow software, organisations could easily identify critical bottlenecks like the resource allocation and preempt costly overruns. Finally, the respondents applauded digital workflows, that once the processes are automated it would result in fewer

administrative errors, since it eliminates the mistakes that could be made through the manual processes of inputting data manually.

4.5.11 Are any of these applications (EDRMS, HCMS, PMS, IFMS) using digital signatures?

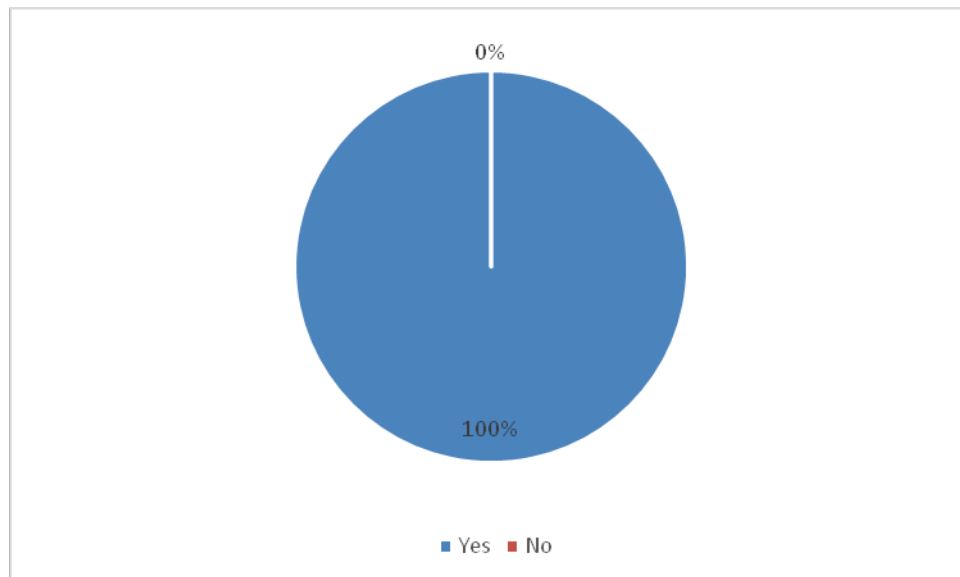


Figure 35: Responses regarding any of the applications that are using digital signatures: OAG.

According to figure 35, 100% of the respondents said that none of the applications are using digital signatures in their Office. They further explained that the absence of digital signatures is caused by the absence of the Namibian Electronic Transaction Bill and the Cybercrime Bills that are still to be finalized.

4.5.12 Do you agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation?

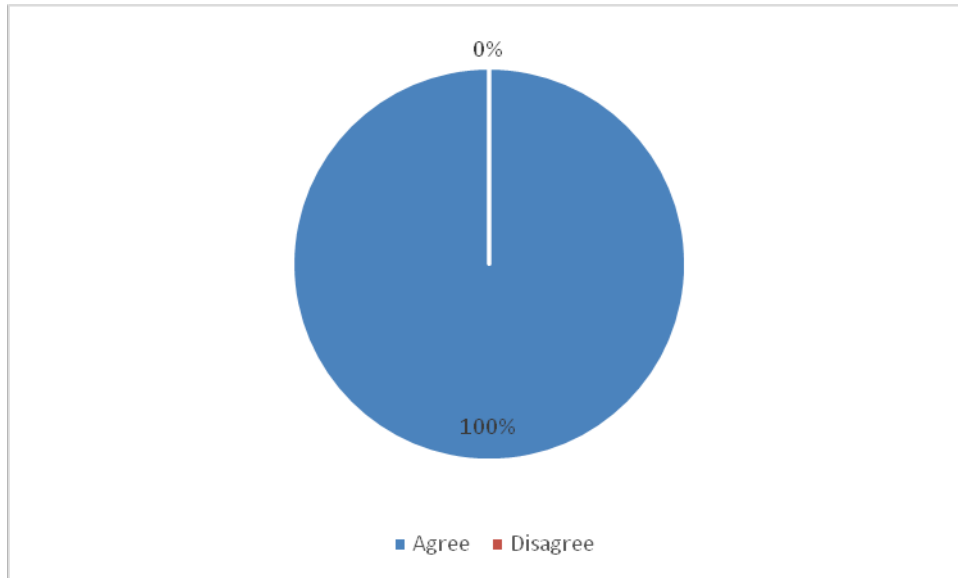


Figure 36: Responses whether the officials agree/disagree that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation: OAG.

According to figure 36, 100% of the respondents said agreed to the statement that e-government projects and/or applications are either never implemented fully or abandoned soon after implementation. The respondents motivated their confirmations, some saying that it seems that the top officials and the system users either they do not understand the importance of the projects/applications, or they lack knowledge on how to use the systems. Some of the respondents said that the failures of these projects and/or applications are caused by poor consultation before the implementation, poor planning and the lack of training to the users.

4.5.13 What are the challenges encountered when implementing/using these applications.

As to the question regarding the challenges encountered when implementing and using these applications, the respondents indicated that not all staff members who are supposed to use the systems are trained and those that are trained are unable to transfer skills to the others. Further training by the Service Provider is also limited,

because, once the contract ends, it means the end of the training by the Service Provider. The respondents further stated that the ineffective Information Communication Technologies and the availability of the network are the contributing factor to the successfully implementation and usage of the systems/applications. As to the availability of the network, they stated that at times the network goes off while the officials are busy processing some tasks and it frustrates the officials, which leads to the mistrust of the systems/applications.

4.5.14 What are the qualification levels of the officials spearheading the implementation of these applications and indicate whether they are capacitated to implement these projects/applications?

As to the question of whether the respondents were convinced whether the implementers of the government projects and/or applications were qualified and capacitated to spearhead these projects/applications, the respondents stated that they were qualified. They stated that in most cases the Head of the implementation team are at the management level and they are capacitated to implement the projects/applications, the only challenge is the lack of support by the top management and the lack of commitment by other stakeholders. One of the concern that came up was that in most cases e-government projects and/or applications are facilitated by the officials with qualifications in Information Communication Technology, even though that was not supposed to be the case, because at times it is required for the main facilitator to have a qualification in the field of that specific project/application and not necessary to have a in qualification Information Communication Technology.

4.5.15 Overall conclusion of the data analysis from all Offices, Ministries, and Agencies

The issue of proper and full implementation and the usage of e-government projects/applications/systems are still not given full attention by the Government of the Republic of Namibia, by the officials and by the users in Namibia. This statement was proved by the officials within the interviewed Offices/Ministries/Agencies, namely; the Office of the Prime Minister, Ministry of Finance, Ministry of Information & Communication Technology and Office of the Auditor General. It was

also observed that a lot of challenges are caused by the lack of commitment by all stakeholders and by the absence of the concerned legal frameworks in Namibia. The conclusion and the recommendations are discussed in Chapter 5.

5 CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

After the information presented in Chapter 4, the researcher will provide a comparison of the 4 projects and the 4 Offices/Ministries, the summary, the conclusion and the recommendations of the data and the information collected in this chapter.

5.2 Comparison of the projects in the Offices/Ministries

This section will deal with the comparisons and the differences of the projects in the different Offices and Ministries. When it comes to the Offices/Ministries indicating which of the 4 e-government projects were implemented successfully in their Offices/Ministries, it transpired that all of the Institutions clearly indicated the presence of these projects in their Offices/Ministries. In keeping with their confirmation, what can be said is that the introduction and the initial implementation of these projects were done and a number of activities were ticked off from the Implementation Schedules. Furthermore, it seems that it takes time before the projects are fully implemented in Offices/Ministries, due to the many reasons highlighted by most of the respondents. The researcher noted similarities among Offices/Ministries when it comes to the officials not being committed to working with the facilitators of the projects, and most of the officials in both Offices/Ministries do not seem to take full ownership of these projects.

Another similarity which is observed among the Offices/Ministries is that, even in the cases where the projects are fully implemented, the officials are not forced to use the system and they are also not reprimanded in case they do not use the system. What can be said about this statement is that the Executive Management needs to introduce mechanisms, which will strength officials to use the systems and also establishes ways of reprimanding those not adhering to the set rules.

Furthermore, there is also another similarity in terms of Offices/Ministries not having sufficient budgets, in order to procure the required equipment for the projects. Most of the respondents indicated that at times, the projects do come to a

standstill, because Offices/Ministries do not have sufficient funds, or rather they fail to prioritize and allocate funds to buy the proper equipment. What can be said about the insufficient funds is that, it goes back to the initial planning of the projects, whereby, the Government ought to make a complete analysis of what is required before implementing the projects, how much money is needed and any other required resources.

Overall, on which of the Offices/Ministries seemed to be the leading implementer, the Office of the Prime Minister seemed to take a lead in all projects, and it is estimated that this is the situation, because the Office of the Prime Minister is regarded to be the leader of all Offices/Ministries and ought to set a good example for other Offices/Ministries.

Moving on to the next area of investigation, which involved whether the respondents were aware of any of the applications having embedded digital workflows and whether digital workflows were being used in their respective Offices/Ministries. The majority of the respondents from all 4 Offices/Ministries confirmed that all 4 of the projects do have built in workflows; however, these workflows were not in use at all. The minority of the respondents stated that the projects did not have workflows, were not so familiar with all aspects of the projects. When the researcher investigated further, found out that it is indeed true that all of the projects have a platform that has built-in workflows. Out of the 4 projects, it is only the EDRMS project in all 4 Offices/Ministries which was using the workflows in its activities.

The next area of investigation was the issue of whether any of these applications were using digital signature, 100% of the respondents from all 4 Offices/Ministries indicated that none of the projects and/or applications were using digital signatures and most of the respondents cited that this was the case, due to the absence of legal frameworks such as the Namibian Electronic Transaction Bill and the Cybercrime Bill. In keeping with the respondents, what can be said here is that there is a need to finalize the required laws, because for example in the case of the EDRMS, without the required laws all documents/records digitally signed may not be accepted as valid and legal, in the court of law. This is due to electronic records being subjected

to the same legal scrutiny as the physical records, and currently the laws does not provide broad mandate for the officials when converting the hard copy records into the electronic records. Therefore, the implementation of digital signature will only be effected once all of the required criteria's for the legal acceptability of the electronic records are in place.

Furthermore, the other issue that was studied was the issue of whether the respondents were aware of the projects that were never implemented fully or abandoned soon after the implementation. What transpired here is that 50% of the respondents from OPM and OAG confirmed to this statement and their reasons were so, due to poor consultation before the implementation, poor planning and resistance to change, and they confirmed that the situation will be so, for as long as there is no change management framework in place. The 50% of the respondents from MICT and MOF declined that the projects were ever abandoned, they citing that the projects were really never abandoned but what came out is the projects ended up being used by few users. On this case, the researcher is of the opinion that if the systems are in place but they are not fully utilized by all of the intended users as per the initial intention, then they are as good as abandoned. Hence, this calls for the change management framework, which should ensure maximum utilization of the systems.

The respondents from all 4 Offices/Ministries cited to have met various challenges in their endeavors of implementing and using these systems. Analyzing the many challenges that were raised, for example the issues of lack of proper awareness, insufficient budgets, and bad infrastructures. These were more common challenges that were observed in all of the 4 projects and in all 4 Offices/Ministries. Another aspect that tied in with the challenges that were observed was the issue of some of the projects being spearheaded by unqualified officials in the required field. What can be said about this issue, is that at times projects of this nature could be tricky, to recruit a person with multi-skilled knowledge, because, at times some of the projects cut from different sectors of the studies. However, it helps to employ someone with an experienced background of the required project and then the official should have completed the required Project Management Programme of some sort. Overall, these

4 projects in the 4 Offices/Ministries are all at different stages of implementations, and there is progress in terms of completing them and it is worth making a follow up after 5 years from now and onwards.

5.3 Conclusion

Lack of Management support and insufficient network connections is described as some of the major challenges that are hindering the effective and the efficient implementation of digital workflows in the Public Service of the Republic of Namibia. Most of the respondents are aware that e-government projects and/or applications are never implemented fully and the situation is rife in their Offices. The study explored that by not fully implementing e-government projects and/or applications was not conducive for the entire nation, because, the public ought to be given sufficient services when needed.

Although the majority of the respondents indicated that most of the systems/applications have built in workflows, they have indicated that not much effort was invested in terms of re-enforcing the usage of all facilities the applications/systems have. What transpired also during this study was that there were no proper mechanisms in terms of passing on the knowledge to the other officials, to carry on once the initial officials resigned or retired. Another crucial factor that came forward was the issue of the absence of legal framework, to support the usage of the electronic transactions, for example, the absence of the Electronic Transaction Bill and many other legal frameworks.

There is an assumption among staff members that those e-governance projects and/or applications are the responsibility of the implementation team members. This is an indication that basic awareness of these projects and/or applications is lowly emphasized among staff members in order to ensure ownership of the applications/systems among staff members.

Based on the data analysis in Chapter 4, the researcher concluded that the officials from both Offices, Ministries, and Agencies are not fully aware of what the projects

and/or applications entails and their benefits. The systems/applications are merely used by certain Departments/Divisions/Units, despite cabinet directives that all staff members should be trained and sensitized about the usage and benefits of these applications/systems.

Based on what was reviewed in Chapter 2 and by looking at the data presented in Chapter 4, the data revealed that the research hypothesis presented in Chapter 1 is accurate. There was really a significant relationship between the researcher's hypothesis when guessed that the issue of change management, officials not willing to give up the old way of doing things, and are not willing to embrace technology. The issue of internet connectivity at all corners of the country could also hamper the fully fledged implementation of digital workflows. Most of the respondents confirmed the above statements as one of the reasons e-government projects/applications/systems are not fully implemented.

5.4 Recommendations

The above conclusions prompted the researcher to make the following recommendations, which could assist similar governments to achieve a fuller implementation that includes digital workflows with digital signatures.

5.4.1 Recommendation 1

It is recommended to make use of proper benchmarking and research about whether similar projects and/or applications are working properly in other countries before embarking on implementation itself. This process would call for thorough feasibility studies to be carried out first, clear statement of requirements to be formulated, proper planning, identification of the appropriateness of the system to government operation, determination of conditions for success, impacts and benefits and setting of realistic expectations, as well as Executive Management support throughout the implementation processes and thereafter. In short, even simple looking implementations like digital workflows are surprisingly complex.

5.4.2 Recommendation 2

The Offices, Ministries, and Agencies involved should embark on creating awareness at an early stage of the implementation, formulating a clear visions and mission for the projects, enforcing the full involvement and the buy-in of the Executive Management and introducing vigorous change management processes aimed at all stakeholders.

5.4.3 Recommendation 3

In cases where some of the e-government projects and/or applications failed already, it is recommended for the OMAs to go back to the drawing board and conduct an audit of how many processes have been fully implemented, and at what levels they are and then identify bottlenecks. Once the above is done, then to review the processes, the reengineering process should be conducted with the involvement of the process users and the key stakeholders, compare digital workflows with the current state and then merge digital workflow with the proposed process, after it has been streamlined and then configure digital workflows.

5.4.4 Recommendation 4

It is recommended for the Offices, Ministries, and Agencies to continuously arrange refresher trainings towards the key-users, end-users, stakeholders and all related users. The regular trainings would be needed, in order to keep abreast with all new developments. It is also imperative that all employees are to be trained and made aware of the presence of the applications.

5.4.5 Recommendation 5

The government is advised to have control and measurements in place, so that the Service Providers are to be put to task, to deliver as promised and also for the Government to be able to make regular follow ups, to see how far the implementation processes are. The identification of risks should also be mapped out and measurements should be in place to mitigate those risks. In order to successfully implement e-government projects, there is a need to include key performance indicators into the officials and task them to report progress on a monthly basis.

5.4.6 Recommendation 6

It is recommended for the Government to budget and avail sufficient resources, in order to be able to pay for all the expenses incurred during the entire implementation process and afterwards. It is also advisable for the government to invest in new hardware and software and maintenance services, in order to successfully implement e-government projects and applications.

5.4.7 Recommendation 7

It was noted that in most cases the Implementation Team is made up of officials from various Departments, with multiple other responsibilities, hence it is recommended that the core implementation team members should be excused from their daily responsibilities in order to focus on the implementation of e-government projects and/or applications activities.

5.4.8 Recommendation 8

It is recommended for the finalisation of the legal frameworks, that reliable policies and guidelines should be crafted and finalised as a matter of urgency, in order to enable officials to have guiding documents that they could refer to when executing and implementing e-government projects/systems/applications.

5.5 Suggestions for further studies

Due to the limitations of this study in terms of time and financial resources, this thesis recommends further research to be carried out on the implementation of the e-government projects/applications, with the inclusion of digital workflows and digital signatures.

Although the Namibian Government initiated the implementation of e-government applications/projects, with the aim to improve service delivery, there is scarce literature empirical evidence in Namibia, in this regard. The researcher is of the opinion that the current implementation of e-government applications/projects should be well documented, in order to improve the current status of the literature availability. The study shows that the Namibian Government is advocating for the

full implementation of e-government applications/projects, so that the nation is at the same level as the rest of the world.

Further research can be done on all of the e-Government projects/applications; in order to establish whether they were also carried out fully or partly, and what could be done to mitigate the issue. So, a longitudinal study with similar scope or broader would be constructive. The researcher should investigate whether the relationship found on the overall implementation of the 4 identified e-Government applications/projects and the inclusion of digital workflows improved over years. The study could also be conducted by using different performance measures, in order to yield more results. This study was just conducted on 4 Government Offices/Ministries in Windhoek; hence, other Ministries could be researched as well.

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7. Annexure

Annexure: A

Letters to OMAs seeking permission to interview the officials.

Annexure: B

Response letters from OMAs authorizing the researcher to interview the official.

Sarah Iyaloo Negumbo
P.O. Box 96133
Windhoek
Namibia
Tel: 0811281182
23rd May 2016

Mr. Mbeuta Ua-ndjarakana
The Permanent Secretary
Ministry of Information & Communication Technology (MICT)
Private Bag 13344
Windhoek

Dear Mr. Ua-ndjarakana,

REQUEST FOR AUTHORIZATION TO CONDUCT RESEARCH AT MICT

I am kindly requesting permission from the Permanent Secretary to conduct research for my Masters Programme in Information and Knowledge Management studies.

I was provided with financial assistance to pursue a Post Graduate Diploma in Knowledge and Information Management System with the University of Stellenbosch in 2014 & 2015. I excelled in my studies and I have decided to continue with the Masters Programme.

A prerequisite towards the completion of this programme is conducting research. My topic is **"E-Government for good governance: The challenges to the implementation of digital workflows in the Public Service of the Republic of Namibia"**. The research is going to look at 4 components, namely; the Electronic Documents and Records Management System, Human Capital Management System, Performance Management System and the Integrated Financial Management System.

Therefore, I am kindly requesting the Permanent Secretary to grant me permission, in order to conduct my research in the Ministry of Information & Communication Technology. The research findings would be used for the study purposes only and the participants opinions/views would be kept confidential.

Counting on your usual support.

Yours sincerely,



Sarah Iyaloo Negumbo
Deputy Director: Applications & Archival Support Division / EDRMS
Department of Public Service Information Technology Management
Office of the Prime Minister

Sarah Iyaloo Negumbo
P.O. Box 96133
Windhoek
Namibia
Tel: 0811281182
23rd May 2016

Mr. Goms Menette
The Permanent Secretary
Office of the Auditor General
Private Bag 13299
Windhoek

Dear Mr. Menette,

REQUEST FOR AUTHORIZATION TO CONDUCT RESEARCH AT THE OFFICE OF THE AUDITOR GENERAL

I am kindly requesting permission from the Permanent Secretary to conduct research for my Masters Programme in Information and Knowledge Management studies.


I was provided with financial assistance to pursue a Post Graduate Diploma in Knowledge and Information Management System with the University of Stellenbosch in 2014 & 2015. I excelled in my studies and I have decided to continue with the Masters Programme.

A prerequisite towards the completion of this programme is conducting research. My topic is "E-Government for good governance: The challenges to the implementation of digital workflows in the Public Service of the Republic of Namibia". The research is going to look at 4 components, namely; the Electronic Documents and Records Management System, Human Capital Management System, Performance Management System and the Integrated Financial Management System.

Therefore, I am kindly requesting the Permanent Secretary to grant me permission, in order to conduct my research in the Office of the Auditor General. The research findings would be used for the study purposes only and the participants opinions/views would be kept confidential.

Counting on your usual support.

Yours sincerely,



Sarah Iyaloo Negumbo
Deputy Director: Applications & Archival Support Division / EDRMS
Department of Public Service Information Technology Management
Office of the Prime Minister

Sarah Iyaloo Negumbo
P.O. Box 96133
Windhoek
Namibia
Tel: 0811281182
23rd May 2016

Mrs. Nangula Mbako
The Permanent Secretary
Office of the Prime Minister
Private Bag 13338
Windhoek

Dear Mrs. Mbako,

REQUEST FOR AUTHORIZATION TO CONDUCT RESEARCH AT THE OFFICE OF THE PRIME MINISTER

I am kindly requesting permission from the Permanent Secretary to conduct research for my Masters Programme in Information and Knowledge Management studies.

I was provided with financial assistance to pursue a Post Graduate Diploma in Knowledge and Information Management System with the University of Stellenbosch in 2014 & 2015. I excelled in my studies and I have decided to continue with the Masters Programme.

A prerequisite towards the completion of this programme is conducting research. My topic is "E-Government for good governance: The challenges to the implementation of digital workflows in the Public Service of the Republic of Namibia". The research is going to look at 4 components, namely; the Electronic Documents and Records Management System, Human Capital Management System, Performance Management System and the Integrated Financial Management System.

Therefore, I am kindly requesting the Permanent Secretary to grant me permission, in order to conduct my research in the Office of the Prime Minister. The research findings would be used for the study purposes only and the participants opinions/views would be kept confidential.

Counting on your usual support.

Yours sincerely,



Sarah Iyaloo Negumbo
Deputy Director: Applications & Archival Support Division
Department of Public Service Information Technology Management
Office of the Prime Minister

Sarah Iyaloo Negumbo
P.O. Box 96133
Windhoek
Namibia
Tel: 0811281182
23rd May 2016

Ms. Ericah Shafudah
The Permanent Secretary
Ministry of Finance
Private Bag 13295
Windhoek

Dear Ms. Shafudah,

REQUEST FOR AUTHORIZATION TO CONDUCT RESEARCH AT THE MINISTRY OF FINANCE

I am kindly requesting permission from the Permanent Secretary to conduct research for my Masters Programme in Information and Knowledge Management studies.

I was provided with financial assistance to pursue a Post Graduate Diploma in Knowledge and Information Management System with the University of Stellenbosch in 2014 & 2015. I excelled in my studies and I have decided to continue with the Masters Programme.

A prerequisite towards the completion of this programme is conducting research. My topic is **"E-Government for good governance: The challenges to the implementation of digital workflows in the Public Service of the Republic of Namibia"**. The research is going to look at 4 components, namely; the Electronic Documents and Records Management System, Human Capital Management System, Performance Management System and the Integrated Financial Management System.

Therefore, I am kindly requesting the Permanent Secretary to grant me permission, in order to conduct my research in the Ministry of Finance. The research findings would be used for the study purposes only and the participants opinions/views would be kept confidential.

Counting on your usual support.

Yours sincerely,



Sarah Iyaloo Negumbo

Deputy Director: Applications & Archival Support Division/EDRMS
Department of Public Service Information Technology Management
Office of the Prime Minister



REPUBLIC OF NAMIBIA

MINISTRY OF INFORMATION AND COMMUNICATION TECHNOLOGY

Private Bag 13344
WINDHOEK
NAMIBIA

Tel: (+264-61) 283 9111
Fax: (+264-61) 258 398

Ref:

Enquiries:

OFFICE OF THE PERMANENT SECRETARY

28 August 2016

Ms. Sarah Iyaloo Negumbo
P.O. Box 96133
Windhoek
Namibia

Dear Ms. Negumbo,

RE: PERMISSION TO CONDUCT RESEARCH AT MICT

With reference to your letter dated 23rd May 2016 requesting for authorisation to conduct research at the Ministry of ICT for academic purposes.

Kindly be informed that approval has been granted for you to conduct the said research at the Ministry of ICT as part of your course work in your studies towards a Masters Degree in Knowledge and Information Management System through the University of Stellenbosch.

Wishing you success with your studies.

I trust that this is in order.

Yours Sincerely,



MR MBEUTA UA-NDJARAKANA
PERMANENT SECRETARY



Republic of Namibia



OFFICE OF THE AUDITOR-GENERAL

Tel: (264) (061) 2858000
Fax: (264) (061) 224301

Private Bag 13299
WINDHOEK

Our Ref:
Enquiry: Ms Emily Mwaala

Your Ref:

9000

27 May 2015

**P O Box 96133
Windhoek
Namibia**

Dear Sara Iyaloo Negumbo

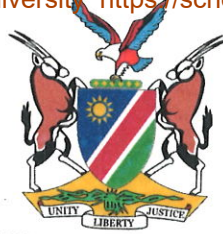
**REQUEST FOR AUTHORIZATION TO CONDUCT RESEARCH AT THE OFFICE OF
THE AUDITOR-GENERAL**

This letter serve to inform you that authorization has been granted for you to conduct your research at the Office of the Auditor-General. However confidential information should be used with my permission.

Your sincerely

.....*G. Menette*.....
**GOMS MENETTÉ
DEPUTY AUDITOR-GENERAL**





REPUBLIC OF NAMIBIA

MINISTRY OF FINANCE

Tel: (00 264 61) 2099111/2930

Fax: (00 264 61) 227702

Enquiries: *A. Iлека*

Our Ref.:

Your Ref.:

Head Office

Moltke Street

Private Bag 13295

Windhoek

10 June 2016

Ms Sarah Iyaloo Negumbo
Student
PO Box 96133
WINDHOEK

Dear Ms Negumbo

**RE: REQUEST FOR AUTHORIZATION TO CONDUCT A RESEARCH AT THE
MINISTRY OF FINANCE**

I acknowledge with appreciation, receipt of your memorandum dated 23 May 2016, on the above subject matter.

The Ministry of Finance would like to congratulate you toward your success in your studies and for choosing a topic that can benefit the Office of the Prime Minister and the Government of Namibia at large. The Ministry is in full support of your request, and hereby, authorise you to conduct the research study.

You must act in accordance with the Ministry of Finance Policies and Procedures, and all information obtained remains the properties of the Ministry of Finance and used for study purposes only.

Finally, I would like to wish you all the best in your studies.

Yours Sincerely,


ERICA SHAFUDAH
PERMANENT SECRETARY

ms Negumbo

25/05/16

. No objection

. Consult the relevant
Heads of Departments.

. Regarding the IFMS
don't you think
is better to
consult the MOF??

msbako
PS - Opm.

Sarah Iyaloo Negumbo
P.O. Box 96133
Windhoek
Namibia
Tel: 0811281182
23rd May 2016

Mrs. Nangula Mbako
The Permanent Secretary
Office of the Prime Minister
Private Bag 13338
Windhoek

Dear Mrs. Mbako,

REQUEST FOR AUTHORIZATION TO CONDUCT RESEARCH AT THE OFFICE OF THE PRIME MINISTER

I am kindly requesting permission from the Permanent Secretary to conduct research for my Masters Programme in Information and Knowledge Management studies.

I was provided with financial assistance to pursue a Post Graduate Diploma in Knowledge and Information Management System with the University of Stellenbosch in 2014 & 2015. I excelled in my studies and I have decided to continue with the Masters Programme.

A prerequisite towards the completion of this programme is conducting research. My topic is "E-Government for good governance: The challenges to the implementation of digital workflows in the Public Service of the Republic of Namibia". The research is going to look at 4 components, namely; the Electronic Documents and Records Management System, Human Capital Management System, Performance Management System and the Integrated Financial Management System.

Therefore, I am kindly requesting the Permanent Secretary to grant me permission, in order to conduct my research in the Office of the Prime Minister. The research findings would be used for the study purposes only and the participants opinions/views would be kept confidential.

Counting on your usual support.

Yours sincerely,



Sarah Iyaloo Negumbo

Deputy Director: Applications & Archival Support Division
Department of Public Service Information Technology Management
Office of the Prime Minister