ADOPTION OF E GOVERNANCE APPLICATIONS IN LOCAL AUTHORITIES ZIMBABWE: A CASE STUDY OF THE CITY OF HARARE (2010-2015)

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CHAPTER I

GENERAL INTRODUCTION

ABSTRACT

The aim of the study was to analyse the impact of adoption of e-governance technological applications on local authorities with reference to the City of Harare. The study was necessitated by the realisation of the change in the technological advancement world where e-governance has been adopted by many municipalities with the import of improving on service delivery. The researcher reviewed literature from various authors and the main theoretical aspects that emerged to be essential in developing the concepts and variables to be studied. The researcher identified the democracy theory as anchoring heavily in the broader societal developments centered on shared values critical to e-governance as it relates to the technological development. The main areas of concern driving technological capability and promotion of e-governance anchored on issues allied to service delivery, strategies being adopted to upgrade e-governance platforms and training offered to ensure the key result areas are achieved. In conducting this study, a target population of 500 employees in the City of Harare based at Rowan Martin and City Council Headquarters, Officials from Ministry of Information Communication Technology and local government and ratepayers. A sample of 110 respondents was chosen from the target population through stratified random sampling where strata were defined by gender and rank category. A total of 110 questionnaires were personally distributed by the researcher and 90 were returned. The study found out that the City of Harare was faced with financial challenges that were hindering technological advances. Due to financial constraints the City of Harare was not adequately equipped to deal with current ICT developments as it did not have the latest gadgets which negatively impacted on service delivery and convenience for the ratepayers. The study also revealed that the City of Harare reviews its training programmes which has resulted in alterations in the training programmes, there are some areas that are still somewhat outdated. Basing on these findings the research recommended that funds be availed to ensure that technology development efforts in the City of Harare are not put to waste. This could be achieved through increasing the City of Harare technological improvement and thrust budget to support technological advancements and facilitate the purchase of modern equipment. The City of Harare is also recommended to be more proactive in informing the rate payers on the benefits accruing out of using e-governance platforms The study also recommended that the City of Harare should continue sending its personnel on ICT courses and workshops that are relevant to e-governance.. A regular review of training programmes to establish individual training needs as well as the competency of trainers was also prudent to ensure that the training provided is relevant and satisfies both employees and organisational training requirements.

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DEDICATION

I dedicate this study to my mother, my wife, kids and granddaughter.

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LIST OF ABBREVIATIONS

ABBREVIATION	MEANING
APEC	Asian Pacific Economic Cooperation
CCS	Central Computing Services
COMESA	Common Market for Eastern and Southern Africa
CSPP	Computer System Policy Project Readiness Assessment Model
ICT	Information and Communication Technology
LAN	Local Area Network
MIS	Management Information Systems
NeGP	National E-Governance Plan
R&D	Research and Development
UN	United Nations
UNESCO	United Nations Educational Scientific and Cultural Organisation
UNDP	United Nations Development Programme
WAN	Wide Area Network

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1.0 Introduction

The purpose of the research study was to evaluate the impact of technological advancement on e-governance applications focusing on local Authorities with emphasis on City of Harare. This chapter introduces the research study by discussing the background to the study, statement of the problem, hypothesis, research questions and objectives, justification of the study, ethical

considerations, limitations and delimitations of the study. Definitions of key terms are given before a summary of the chapter.

1.1 Background to the Study

Local authorities with the sudden transformation into the digital world in service provision and day to day communication activities have seen them markedly embracing e-governance strategy as an exit to positive results. The City of Harare largely depended on manual system in its transactions hence the need to adopt e-governance applications to enable efficiency and convenience for the paying public. McCartney (2010:32), point that e-government strategy is a fundamental element centred on new technology offering unprecedented opportunities for modernisation and convenience throughout the society. With City of Harare billboards resplendent and mobile transactions available at Rowan Martin Building it is evident that strides are being made to adopt e-governance though the applications need to be evaluated in their positive and negative effect and also scrutinize their widespread availability to all districts to enable use by ratepayers.

E-governance applications and projects pass through various stages such as publishing information on the web to carrying out transactions. Developments in science and technology, in particular the dramatic advancement of Information and Communication Technology (ICT) post 2000, has impacted a variety of areas, triggering significant, revolutionary changes in many areas such as economy, society as well as lifestyle and the local authorities and in particular City of Harare are no exception in this paradigm shift. Information revolution has changed the way in which various institutions and companies do business and on the other level affords citizens to get many services and goods they need with acceptable measure of convenience with marked cost reduction. Zinyama and Nhema (2016:20) posit that e-government includes all electronic information movement, interactions and transactions that facilitate service delivery among government ministries, institutions, departments and agencies(G2G); between Government and business(G2B) and Government and the citizenry (G2C). In view of the foregoing E Government relies entirely on ICTs to provide services such as convenient access to interactive information and services, timely delivery of public services. It is envisaged that this would drive down costs, and to an extent bring local authorities closer to people and make them more responsive to their needs thus delivering efficient and effective methods of conducting business transactions. This then project three domains of e governance

pivoted on improvement of digital applications processes (e administration), connecting citizens (e Citizens and e services) and building external interactions (e society).

Notably, the information age revolution has brought huge changes to all the facets of the economy throughout the world which allows building services around citizen choices thus allowing social inclusion and using information better. New technology offers unprecedented opportunities for modernisation throughout our society more so with billboards ominous to rate payers and websites replete with prime information. The rate of technological change is increasing, placing a greater premium on the ability of organisations to adapt quickly to remain competitive on the market sphere. In this regard capacity building, public relations skills, strategic plans become key in the whole gamut of developing and adopting a robust e governance application domain within the purview of local authorities operations.

Krepinevich (2014:38) asserts that e-government strategy is a fundamental element in modernising public institutions. It identifies a common framework and direction for change across the public sector. It establishes a leading role for a structure of collaboration between the many organisations on which its success would depend. As such key stakeholders in the form of telecommunication companies, banks and the relevant support ministries become critical in the whole local authorities applications matrix. This then entails better services for citizens and business and more effective use of information resources. This would only be achieved when local authorities innovate and also challenges the centre of government to provide the common infrastructure needed to achieve e governance goals. Clark (2012:65) alludes that a citizen focussed local authority has turned out at the turn of the millennium to be the hallmark of conducting business, one which interact with people and providing high quality services which are accessible, convenient and secure. This can only be achieved when there is access to information which is electronically delivered in tandem with current dispensation realised over the internet and through mobile phones, digital TV, and call centres as well as through personal computers Toffler (2013:60). These capabilities have a potential of improving in future and in the predictions done by the United Kingdom Information Centre in 2013, future advanced technology will not only be smart but intelligent as well thereby having an impact on service delivery. New ways of doing business will change the relationship between individuals and local authorities and access to information would be firmly established.

Corum, (2012:126) notes that developments in technology and the rapid fall in the price of communications and computing have been capitalized by many local authorities thus

transforming many people's lives. This resulted in new services being established and existing ones provided in new ways. At their best, these services deliver the benefits of better access, with services available where and when there is demand with delivery through a range of media, over the counter, via call centre and online. Furthermore, on the fore came segmentation of the market, with services tailored to suit the needs of groups within the market more with responsiveness to feedback about the content and quality of services premised on involvement of users in service redesign and improvement.

Dawen (2010:14) states that as with other large bureaucracies of a similar nature, local authorities organisations are generally viewed as resistant to change. Despite all these changes in technology, some local authorities have not changed their practices since the dawn of modern day digital application (Dupuy, 1990:40). In a bid to modernise local authorities, some African countries such as South Africa and Ghana have adopted a number of strategies to evaluate their municipalities adoption to e-governance in comparison with other countries. These include the streamlining of organisations by eliminating unnecessary organisational levels thereby removing information bottlenecks by allowing more people direct access to the information they need Levy (2011:43). This promotes innovation and creativity amongst local authorities by reducing bureaucracy in idea generation and development. Countries have also realised the need to operate jointly in order to build on synergies which also facilitates the exchange of ideas as globalisation has turned the world into one global village.

People are aware of the possibility and benefits of excellent service, and they expect it in their dealings with business. They are less tolerant of poor service in one sector when they have experienced good service in another. According to Kaldor (2012:67), the challenge for the public sector is that the same growing expectations will be applied to government services. The public sector must innovate and invest in new business models to meet this demand. The possibility of more accessible municipal services should mean that they become more convenient, easier and cheaper to use. Personalisation of services should make it possible to be more inclusive in providing services in more languages and in ways which are accessible to those who have a disability or are less mobile. In local authorities, the increased ability to use data about individuals to improve knowledge of customers and improve services is quite properly accompanied by concerns for the security, privacy and confidentiality of personal information. Krepinevich (2014:67), however argues that innovation is critical to the success of any attempt to compete effectively in a new era of information and though resources may

be constrained, that need not impose an insurmountable barrier to innovation. Establishing and maintaining trust is vital for online business. New technology offers the possibility of making access to information about municipalities easier and for commitments on freedom of information to be met. The digital age also offers the possibility of a better informed and more participative democracy through electronic consultation and better responses to feedback. Due to the economic situation in Zimbabwe, it becomes questionable whether the local authorities can afford to invest in latest information technology for the betterment of its clients. This research therefore sought to analyse the adoption of e governance applications in Zimbabwe and focus will be made on the City of Harare.

Harare officially called Salisbury until 1982 is the capital and most populous city of Zimbabwe with an estimated population of 2,5million(Moyo:2013). Administratively, Harare is a metropolitan province, which also incorporates Chitungwiza town and Epworth. The name of the city was changed to Harare on 18 April 1982, the second anniversary of Zimbabwean independence. In the 21st century Harare has been adversely affected by the political and economic crisis that plagued Zimbabwe thus the elected council was replaced by government appointed commission for alleged inefficiency, but essential services such as rubbish collection and street repairs have rapidly worsened. In 2009, Harare was voted to be the toughest city to live in according to the Economist Intelligence Units liveability poll. The situation was unchanged in 2011 according to the same poll, which is based on stability, health care, culture and environment, education, access to information, easy of transaction and infrastructure. Importantly Mwando (2015:75) firmly asserts that City of Harare deteriorating service delivery could be linked to failure to collect revenue and to move with the current digital landscape which allows robust interaction with the citizens. Aptly put there has been a marked snail space in introducing e-governance applications platforms to enable competitive advantage. With the population modestly placed above 2,5 million it is apparent that more could be derived from the generality of the residents which could have reverted the city to its pre 2000 glory where to it competed favourably with other global metropolis in terms of service delivery.

Adrian (2003:4) argues that failure to move with latest trends in e-governance applications was city of Harare albatross as it remained mired in the medieval practices in a digital age era where e-governance held sway. For any modern municipality to survive in such an operating environment, there is need to continuously move with the times so as to remain relevant. Personnel also need training to blend with the new dispensation so as to unlock its value. To

cope with changes in technology the city embarked in technology upgrades programs fixated on the template borrowed from other government institutions and other countries municipalities in the region and beyond. The extent to which the City of Harare benefits from the acquired skills and knowledge was worth exploring hence the need for the present study.

The way in which municipalities are organised and human resource equipped determine their ability to obtain maximum service delivery effectiveness. Most developing countries do not have the capacity to produce their own e governance applications platforms. In a bid to build modern digital sensitive applications, they depend on outsourcing platforms thus pointing to the deficiency and handicap of their Information Technology Unit. Tandem to this, the municipalities find themselves in the old mode miles away from obtaining current technology. A common phenomenon is to implement last generation systems applications or water down versions due to prevarications. Halton et al (2012:68) state that such procrastination has telling negative impact on poor countries city councils service delivery. Given the above mentioned challenges, this study therefore sought to establish how the city of Harare is managing to overcome such challenges in order to maintain its core mandate of service delivery in the world where the citizens yearn for prompt information dissemination and user friendly and current e governance platforms.

1.2 Statement of the Problem

Advances in digital technology have not only increased the efficiency and effective service delivery for many endowed states local authorities, rather, they have served to convey the message that even the citizens access convenience at their doorsteps hence becoming a visible hallmark of e-governance. E governance in the use of ICTs especially internet to adopt a new conception and attitude of governing and managing gives birth to participation and efficiency where partners are linked in a network. Governance can utilize e-governance to reinvent themselves, get closer to citizens and forge close alliances and partnerships with diverse communities within the context of development. On the other hand, poorer states, Zimbabwe included, continue to grapple with the increased burden of lack of visible e-governance crucial characteristics pivoted on e engagements consultation controllership and networked societal guidance which has also resonated well into municipalities and City of Harare has not been an exception. Simply put, the e-governance applications and projects pass through various stages such as publishing information, interaction, transaction and transformation which are just mere conceptual framework which enables the analysis of the technological advancement in a given

community. The phases though not dependant on each other, makes it critical for easy and continuously evaluation of the maturity of the municipalities in adopting e governance. There is need however to ascertain whether the City of Harare utilises the acquired skills to close the technology gaps. There is also a need to evaluate if the training offered for City of Harare personnel adequately equips them with the relevant skills that enable them to operate in the current environment thereby getting value for money invested in training. More so pertinent is to unbundle within the precepts of City of Harare the major aspects of e-governance centred on interconnectedness, interdependence, improvement of service delivery, improvement of information management, improvement of accessibility and participation of different stakeholders in order to quicken both policy formulation and decision making. Critical to highlight is the problem aligned to reliance on manual systems and the relief that the e-governance would bring to the citizens of Harare. With shortage of money in banks and the need to migrate to electronic transactions e-governance could come in handy for both the paying public and the local authorities hence the magnitude of problems presented by manual systems which has affected citizens would be alleviated. In this regard the beneficiaries would not only be limited and cofined to paying citizens and the local authority but the business community, private sector, non-governmental organisations and government which the study would endeavour to unravel in the precepts of positive and negative attributes of e-governance within the purview of local authorities as it moves to adopt e-governance applications platforms.

1.3 Research Objectives

The study sought to achieve the following research objectives:

1.3.1 Ascertain the impact of changes in electronic technology on the City of Harare service delivery.

1.3.2 Examine the strategies used by the City to upgrade its e governance platforms.

1.3.3 Explore the effectiveness of training offered in equipping personnel with relevant skills to keep up with the continuous changes in ICT technology.

1.3.4 Analyse solutions to improve e governance applications in the local authority

1.4 Research Questions

The study sought to answer the following research questions:

1.4.1 What is the impact of changes in electronic technology on service delivery?

1.4.2 What strategies are used by the City to upgrade e governance platform?

1.4.3 How effective is the training offered in equipping personnel with adequate skills relevant to keep up with the continuous changes in ICT technology?

1.4.4 What are the solutions and recommendations on e-governance improvement matrix?

1.5 Significance of the Study

The researcher expects that the findings of this study will be availed to the research participants, and policy makers in the city of Harare, various ministries amongst which are Local Government Public Works and National Housing and Information Communication Technology, Postal and Courier Services and other municipalities. The findings of the study will benefit the City of Harare, the researcher, other organisations and the University of Zimbabwe (UZ) in the following ways:

1.5.1 City of Harare

While the role of pure research is to primarily contribute to the body of knowledge of a particular academic discipline, it is expected that the City of Harare, if they decide to act on the recommendations provided, can improve on its service delivery. This can be achieved through continuous evaluation of the organisation's electronic capability as well as the relevance of training provided to personnel and e governance applications. The study will also present strategies that the City of Harare can use to evaluate as well as improve its efficiency and effectiveness.

1.5.2 The Researcher

The researcher hopes to acquire skills in research and will also gain more knowledge on the subject of e governance and its impact on service delivery. Through this study the researcher will have an opportunity to contribute to the betterment of the City of Harare.

1.5.3 Other Organisations

It is hoped that the study will benefit other organisations especially those in the ICT industry, other local authorities in particular. These organisations will realise how changes in digital technology can have an impact on their service delivery in support of the achievement of national goals. The study will also reveal the importance of continuously monitoring and adapting to changes in electronic technology as well as adjusting training programmes to suit such changes.

1.5.4 University of Zimbabwe

E governance is one of the key subjects covered by Master in Public Administration students at the UZ. The study is expected to generate valuable knowledge and literature on the subject of e governance which will assist future students.

1.6 Limitations of the Study

City of Harare has several satellite stations that are geographically spaced across the various suburbs however the researcher only focused on City of Harare Headquarters in Julius Nyerere Street where most policy makers are resident and Rowan Martin Building to represent other stations since the setup is almost similar. Because of the sensitive nature of the organisation, the researcher initially found it difficult to access data as some respondents were not comfortable to provide information. To improve on the confidence of the respondents, permission to conduct the study was sought from City of Harare Headquarters prior to the study and respondents were informed that maximum confidentiality would be maintained.

1.7 Delimitations

Zimbabwe has several local authorities and City of Harare is in proximity with other satellite towns like Chitungwiza, Epworth and Ruwa. Though these municipalities are different, their terms of reference are almost similar and it is assumed that they are affected by changes in digital technology in the same way. While it is acknowledged that there is need to ensure that

the external validity of this study is high, it is also standard that every scientific study has to be confined to specific geographical and procedural limits. With this in mind, the researcher will focus on the City of Harare and the results obtained with be generalised to other local authorities.

1.8 Assumptions of the Study

The study assumes that e governance applications are likely to improve on convenience for the local paying communities this would in turn translate to more revenue into city coffers thus enhancing and improving on service delivery to the local community.

1.9 Ethical Considerations

Greener (2008:12) defines ethics as a set of principles outlining a behavioural code that lays out what is good or bad. Adherence to ethical norms helps promote the aims of research such as knowledge, truth and avoidance of errors as they prohibit against fabrication, falsifying and misinterpretation of research data. Guided by this philosophy, the researcher maintained high standards of ethics in the research in such activities as gaining access, collecting, processing and storing data and writing up the research findings in a moral and responsible way. When carrying out a study it is necessary to gain acceptance and consent from intended participants within the organisation or group in order to gain access to the data that they are able to provide (Robson, 2002). Consent was sought from research participants and they were informed of the purpose of the study. Confidentiality of respondents was respected and their identity was not involuntarily revealed. Participants were informed of their rights to withdraw from the study if they so wished. Respondents were assured that the information provided on the questionnaires would be kept confidential. The study did not involve minors so there was no need to seek consent from parents.

1.10 Organisation of the Study

Chapter Outline

The research consists of five chapters. Each chapter begins with an introductory paragraph that provides a snapshot of what the chapter is all about, and ends with a summary that recaps the major key issues discussed in the chapter.

Chapter One

Chapter one of this research provides an overall introduction to the whole research project. The background to the research topic, the research problem, the research objectives, the research questions, justification of the study, limitations and delimitations are covered in this chapter.

Chapter Two

Chapter two provides a detailed literature review on areas around e-governance, particularly in those areas that influence and guide the research study in order to avoid rediscovery of knowledge already known through previous researches and experiences. The chapter aims to build upon the knowledge already in existence on the subject under investigation. Perceptions and theories postulated by various scholars and practitioners are examined and their relevance to the research topic is articulated. An attempt is made to highlight the linkages between literature review and methodology.

Chapter Three

Chapter three looks at the research methodology that was adopted in conducting the study. It covers the research design, description of population, sampling technique, data collection instruments, validity and reliability as well as the data presentation and analysis plan.

Chapter Four

Chapter four provides the presentation, analysis and interpretation of the research findings in descriptive and diagrammatic form. It presents, analyses and interprets the qualitative and quantitative data gathered during the research activities. Linkages are made to the methodologies in chapter three.

Chapter Five

This chapter summarizes the research findings and reviews the extent to which the research questions were addressed. It draws some conclusions and makes recommendations based on the findings in order to address the identified gaps. Recommendations for further study are also submitted.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

Leedy (1997:34) defines literature review as a written summary of articles, books and other documents that describe the past and present state of knowledge on a particular phenomenon. According to Leedy (1998:103), the purpose of a literature review is to describe the work that has been reported on a particular subject or field. Machi (2009:22) also asserts that literature review serves to identify new ways to understand and shed light on any gap in previous researches. This helps the researcher to generate rationale or justification for the study being undertaken. During the process of literature review, the researcher brought together supportive information from authorities that have undertaken similar studies in the past though in different settings. To obtain such information the researcher focused on studies published in journals,

books and thesis related to the changes in the world of technology and its impact on service delivery of a community. This chapter will look at the theoretical framework guiding the present study, the researcher's conceptual framework, a review of related literature as well as empirical literature review.

2.1 Historical Background

Governments and public sector organisations around the world are faced with increasing requests to reform their public administration institutions and deliver more efficient and cost effective services, as well as better information and knowledge to their stakeholders hence the drive for e-governance across the world Savic (2006:3). This phenomenon largely found resonance and gained much currency from the 1970s and the tempo rose markedly from the turn of the twenty first century with African countries joining the bandwagon (Ibid 6). Simply put, the concept of e-governance had its origins in India during the seventies with a focus on development of in house government applications in the areas of defence, economic monitoring, planning and development of IT to manage data intensive functions related to elections, census, tax administration etc. Backus (2010:19) pointed that from the early nineties, IT technologies were supplemented by ICT technologies to extend its use for wider sectoral applications with policy emphasis on reaching out to the rural areas and taking in greater inputs from NGOs and private sector as well. There has been increasing involvement of international donor agencies under the framework of e-governance for development to catalyse the development of e-governance laws and technologies in developing countries. While the emphasis has been primarily on automation and computerization, there has been a shift to use ICT tools into connectivity, networking, setting up systems for processing information and delivering services. At a micro level, this has ranged from IT automation in individual departments, electronic file handling and workflow systems, access to entitlements, public grievance systems, service delivery for high volume routine transactions such as payment of bills, tax dues to meet poverty, alleviation goals through the promotion of entrepreneurial models and provisions of market information Beckers (2013:83). The thrust has varied across initiatives, with some focusing on enabling the citizen state interface for various government services and others focussing on bettering livelihoods. This then implies that the more overt motivation was to shift from manual processes to IT enabled process thus allowing for increased efficiency in administration and service delivery and the shift could be conceived as a worthwhile investment with potential for returns which the local authorities endeavoured to

capitalise on. With this in mind critical review of the benefits and pitfalls of e-governance on the shift from manual and automation thrust within the obtaining status quo need to be unravelled on the gaps and gains of this initiative.

Increasingly governments use information and communication technology, especially internet and web based applications to provide external services to citizens, businesses, not for profit organisations. Related to this, internal government procedures and work methodologies are also undergoing substantial changes which has come with both positive and negative attributes. Mel Cappe (2001:11) contends that in the context of municipalities, the entrance of e-governance platforms ushered visible convenience to the paying public with marked increase in revenue inflows hence bringing improvement to service delivery with negative posture most seen to affect the less technological savvy people thus with their traditional disposition are vulnerable to modern day tricks replete in the world of technological advancement. With negative sentiments aside, e-governance has offered an opportunity to successfully serve the citizens and come as an efficient and effective way to respond to new challenges (Ibid:22). E-governance thus become an instrument of an information rich society, which follows main governance principles and strategies, and enables the use of information and communication technologies in interactions between and among the key members of society state, citizens and business with an aim of strengthening democracy and supporting development.

E-governance is viewed as premised on utilizing IT to guide and restrain collective activities of a groups that manage formally and informally processes and institutions in private as well as public enterprises Sharma et al (2011:7). The emphasis in most countries is aiding managers to accomplish their functions effectively predicated on supervising, planning, organising, controlling and staffing (Ibid:9). Mintzberg (1971:28) classified managerial roles into three categories: interpersonal, informational and decisional. Information systems that help in accomplishing these functions and roles include MIS, DSS and ESS which are sometimes collectively called Management Information Systems. IT can reduce internal management costs hence the centrality of e-governance in this whole matrix thus demanding closer interrogation within the City of Harare. IT within the purview of e-governance enables public enterprises like municipalities to increase revenue while shrinking the number of middle management and clerical workers thus flattening organisations. Notably within the precepts of current status of e-governance implementation according to UN global E-Government Readiness Report 2015 no African country features on the top 50 list and the continent ranks

last on the e-governance readiness index. This on the whole, inform of the resplendent dependence on manual system in various local municipalities wrought from the national procrastination in moving with the current modern trends in e-governance. Critical to highlight as pointed by Webster and Watson (2013:16), ICT infrastructure, human resources, legal framework, internet access, the digital divide and connectivity are among the most common themes on the challenges to the successful implementation of e-governance initiatives in Sub Saharan African countries. The countries could benefit from the advantages of e-governance only if the above challenges are addressed collectively allowing for sensitivity of certain economic realities.

2.2 Theoretical Framework

Venkatesh and Thong (2003:17) define the theoretical framework as the specific theory adopted by the researcher for use in developing the concepts and variables to be studied. In a way, such concepts will also impact on the choices for the research methodology Venkatesh & Thong (2003:12). The theoretical framework therefore influences the decisions made during the research process. There are many theories relating to e governance applications adoption and its impact on service delivery. This study drew insights from the works of Savic, who is considered an authority of modern e-governance theoretical foundations and practical implications (Savic, 2006) despite the fact that his works were produced over a decade ago. Savic introduced the democracy theory in information technology as central to playing a catalyst for broader societal developments centred on shared values. According to this theory it consists of building blocks made more ubiquitous by electronic means. The building blocks are population, territory, freedom, decision making procedure, existence of constitution, rule of law, human rights and freedoms. In tandem to this the theory speak to a process of deliberation and negotiation premised on institutional linking mechanism between political power and political control hence allowing checks and balances. This theory states that, an organisation should not live in isolation in the current global environment replete with fast changing digital information and communication technology. To maintain its service delivery capability, local authorities has to interact with other players. As a result, municipalities should not view changes in the ICT world only as threats to their survival. Rather, such changes need to be viewed as opportunities to learn and improve organisations' capabilities in service delivery.

The other theory is predicated on the notion of governance. Governance is an exercise of power for steering social systems, as well as a process by which organisations are directed, controlled and held account. It is also regarded as a set of the systems and processes concerned with ensuring the overall direction, effectiveness, supervision and accountability of an organisation (Cornforth 2003). UNESCO (2005:23) regards governance as a basic concept which refers to the exercise of political, economic and administrative authority in the management of a country's affairs, including citizen's articulation of their interests and exercise of their legal rights and obligations. In this regard governance covers structures and processes for decision making, accountability, control and behaviour at the top of organisation and that it leads to better development, higher per capita income, lower mortality and higher literacy, builds confidence in public sector entities. Basing on the Savic learning theory the researcher came up with theoretical framework on how an organisation can improve or maintain its service delivery capability. Savic suggests that the level of technology within an organisation is influenced by its past experiences, available resources, the experience of other organisations they interact with and perceived competition. These variables ensure that local authorities do not lag behind in technology thereby contributes to improved service delivery. In e-governance, electronic or digital means support and stimulate good governance. Therefore, the objectives of e-governance are similar to the objectives of good governance which can be seen as an exercise of economic, political and administrative authority to better manage affairs of municipalities (Basu,2014). Good governance comprises the processes and structures that guide political and socio economic relationships, with particular reference to commitment to democratic values, norms and practices, trusted services and to just and honest business(Okot-Uma,2004). Main features of good governance are participation, transparency and accountability. The advances in communication technologies and the internet provide opportunities to transform the relationship between local authorities and citizens in a new way, thus contributing to the achievement of good governance goals.

Overall, the development of technology will not be successful without adequate financial and human resources. The theoretical frameworks seemed to lack in this dimension which is important as it assist in projecting e-governance issues. This therefore calls for a strong budget to be able to sustain these activities and in turn bring better service in terms of time and effort making governance more efficient and more effective. A capable municipality is one that is capable of effectively dealing with change in technology. The IT section must be capable of responding quickly and operating effectively across a wide range of business environments.

Such high computer literacy and readiness demands well qualified and motivated people, adequate amounts of modern, well-maintained equipment, realistic training, management and sufficient support and sustainment capabilities. With this full array of capabilities, the transaction costs would be lowered and municipality services become more accessible to all citizens.

2.3 Review of Related Literature

Having discussed the theoretical framework guiding this study, there is need for the researcher to review literature deemed relevant to the study to have an insight to what other authors have said concerning the adoption of e-governance applications and their impact to service delivery. This was done basing on the research objectives.

2.3.1 E-Governance

To understand the importance of evaluating the adoption of e-governance applications in local authorities and its impact to service delivery it is pertinent to unpack and examine key issues around the definition of e-governance. Definitions of e-governance range from the use of information technology to free movement of information to overcome the physical bounds of traditional paper and physical based systems (Okot- Uma,2004:7) to the use of technology to enhance the access to and delivery of government services to benefit citizens, business partners and employees (Deloitte,2003:21). The common theme behind these definitions is that e-governance involves the automation or computerisation of existing paper based procedures that will prompt new styles of leadership, new ways of listening to citizens and communities and new ways of organizing and delivering information. Rao (2003:10) however defined e-governance as the use of ICT for the planning, implementation and monitoring of government programs, projects and activities. In view of the above, e-governance maybe understood as the performance of the public governance via the electronic medium in order to facilitate an efficient, speedy and transparent process of disseminating information to the general public and other agencies and for performing government administration activities. In this regard the term could be viewed as referring to the process of using information technology, particularly the internet based one, for automating and improving government operations. It covers both internal and external operations of the government and public institutions. Automation of internal government operations improves efficiency and effectiveness, while reducing the cost of governing. Automation of government external operations and their interactions with

citizens also reduces the cost and improves the responsiveness bringing the benefits to both the government and the citizens. Ahmedabad (2003:13) asserts that e-governance is expected to help deliver cost effective and easy access to citizens and improve processing of transaction both within the government and between the government and other agencies. Within the precepts of local authorities' e-governance would involve new styles of leadership, new ways of debating and deciding policy and investment, new ways of accessing education, new ways of listening to citizens and new ways of organizing and delivering information and services. The idea is to move beyond the passive information giving to active citizen involvement in the decision making process through the use of information and communication technologies. This is indeed core or essential benefit that introduction and use of e-governance can bring to the society. E-governance thus comprise a set of principles, strategies, systems and tools that enable the use of ICT in interactions between the key members of society, state, citizens and businesses to support development. E-governance could be viewed as justified if it enhances the capacity of public administration to increase the supply of public value that is based on the things people want and this can only be derived if the organisation has good strategy. With the above taken into context, areas and strategies of e governance will be discussed in detail.

2.3.2 E-Governance Strategies

The deployment of ICTs and e-government in world goes back to 1970s when the central Computing Services (CCS) provided ICT services to the public services (Hwikwa and Maisiri,2014). Following this was the adoption of the Integrated Results Based Management System in 2005, which is underpinned by e government as an integral component (COMESA e Government Web Portal,2012). This e-readiness survey conducted in various countries eventually became the basis for the national ICT Policies and e-strategy to provide a roadmap towards a knowledge society (Ibid:1). With time a fully-fledged Ministries of Information Communication and Technology were established with a strategic dispensation that promotes the use of ICTs in the public sector value chains. E-governance is generally considered as a wider concept than e-government, since it can bring about a change in the way how citizens relate to governments and to each other Hinge(2000:7).

E-governance can bring forth new concepts of citizenship both in terms of citizen needs and responsibilities only if key strategies are adopted. The strategy would be based on engaging,

enabling and empowering citizens. Strategies centred on e-commerce allows business to communicate with each other more efficiently and it brings customers closer to business Savic (2006:25). Similarly, e-governance aims to enable the interaction between government and citizens, improve interagency relationship and establish efficient relationship between the government and business enterprises. To illuminate perfect e-governance strategies there is need to reveal the principles attached to its success. The key principle is pivoted on corporate governance which the Cardbury Report (1992) defined as the system by which organisations are directed and controlled. The basic principles identified and relevant to municipalities are openness, integrity and accountability. IFAC Study (2001:4) alludes to openness as required to ensure that stakeholders can have confidence in the decision making process. It also helps with the general confidence in the management of public organisations and in the individuals within them. Openness is achieved through meaningful consultations with stakeholders and communication of full accurate and clear information which the ICTs would assist in propagation of such messages. Integrity requires straightforward dealing and completeness. It is based upon honesty and objectivity and high standards of propriety and probity in the stewardship of public funds and resources and management of an entity affairs. Integrity is dependent on the effectiveness of the control framework and on the personal standards and professionalism of the individuals within the entity. It is reflected both in the entity decision making procedures and in the quality of its financial and performance reporting. This could be realised with departure from manual system to electronic applications which is more fool proof to manipulation. Accountability on the other hand is the process whereby public sector entities and the individuals within them are responsible for their decisions and actions, including their stewardship of public funds and all aspects of performance and submit themselves to appropriate external scrutiny, and with e-governance applications accountability would be easy to achieve.

The strategic thrust to function to the full should resonate well with the e-readiness focus. The United Nations Development Programme (UNDP) has always been on the thrust commissioning E-Readiness Survey in various countries whose purpose was to assess a certain country's readiness to become a knowledge society. Gant (2008:54) defines E-readiness as the level or degree of preparedness a government is to adopt, implement and use e-governance systems to expedite service delivery. To Heeks (2002:31) E-readiness assessment measures the capacity of a country to adopt e-governance initiatives to enhance its service delivery capability. In the view of Moon (2002:23) an E-readiness assessment adjudge how prepared a

country is for adoption of e-governance systems. According to Zanied et al (2007:42), the concept of E-readiness assessment entails the determination of the feasibility of e-government functionality in a given country. Gleaning from this corpus of definitions, E-readiness is conceptualised as the process of gauging how ready a country is to embrace e-governance systems. E-governance readiness assessments are useful strategies in that they provide framework to assist decision makers to determine country's development status in terms of ability to embrace and fully utilize e-governance systems. Institutions can identify areas where they are lagging behind, thus identify areas of priority for future action. According to George (2004:45) the e-governance readiness status of a country is shown on the e-governance readiness index. A lower rank on the index signifies low level of e-readiness, whilst a higher rank resembles significant strides in embracing e-government systems. With this in consideration the various public entities embracement and adoption of e-governance applications have a direct bearing and relation to its e-readiness preparedness status.

The Computer Systems Policy Project Readiness Assessment Model (CSPP) which was developed by the International Telecommunication Union in 1998 assesses a country's e-readiness status on the basis of a country's ability to live in the networked world West (2008:8). According to Lau (2003:34), this model measures the prevalence and integration of ICTs in homes, schools, businesses, health care facilities and government offices to determine the e-readiness status of a country. The model employs two categories to measure the readiness level of any given country and these measures are ICT infrastructure development level and user access to services. Thus an e-ready country should have a developed network of ICT infrastructure which is supported by an enabling legislative framework to foster access to services by all stakeholders. In this regard the strategies deployed to enhance level of development of ICT infrastructure and legislative framework would be unravelled in the context of Zimbabwe local authorities as it has also a bearing in other public institutions activities. According to Monga (2001:52), Singapore is regarded as an e-ready country because e-government systems have percolated into all public institutions and this has enhanced the provision of public services in the country.

The Asian Pacific Economic Cooperation Readiness Assessment Model (APEC) developed in 2000 assesses the degree of e-readiness on the basis of the ability to use e-government systems to foster an e-economy that is, e-commerce, e-industry trade and e-business Zanied et al (2007:13). The model envisages that a well-developed ICT infrastructure will also allow access to network services which promote industry diversity, export controls credit card regulation

among other economic activities via on line systems. The model therefore emphasizes the use of electronic systems to facilitate industrial and economic growth. Chiran (2008:71) holds that APEC model view technological capacity to embrace a digital economy as the yardstick to determine whether a country is ready or not for electronic government systems. Rwanda for example has become a shining beacon and model for deployment of ICT in Africa as the economy has been growing by an average of 7% from 2007 due to adoption of an e-economy model of doing business Chiran (2008:18).

The Economist Intelligence Unit E-Readiness model is the most comprehensive because it provides all round framework to assess the state of a country's preparedness to adopt e-governance systems Lau (2003:40). The model ranks countries according to categories such as connectivity and technology infrastructure development level, e-government legal and policy environment, accessibility to e-services, ICT literacy level and ICT awareness. The first e-readiness indicator according to EIU readiness rankings model is the availability of a regulatory or legislative framework which show the political will or commitment of the top leadership to embrace e-governance systems. The presence e-government legislation shows that the country is ready to move towards a digital era of governance. Legislative framework can be in the form of ICT related policies such as Internet Service Provider Policy, Information Technology Act, E-governance development strategy or Plan among enabling legislations West (2008:11). The formulation of an organisational ICT policy framework or an e-governance development strategy is therefore a primary indicator of the governments political will to adopt e-governance applications system. An e-governance legislative framework involves strategic plans which show the way forward in the implementation of e-governance. It provides the roadmap for an organisation to move from its current state to the desired e-governance state. It is usually formulated as a national e-governance development strategy or the national ICT strategy. According to Gant (2008:27) an e-governance strategy involves action plans as well as ICT policies and procedures. It also provides the vision and plans of the organisation to move towards a digital age. It signifies political will to embrace e-governance initiatives. It is the first step towards an e-society. It provides the overall support for all e-government development frameworks to prosper. In India the enactment of the Information Technology Act in 200 and the formulation of the National E-governance Plan (NeGP) in 2006 were strides to provide impetus for e-government development in the country. In South Africa, the Cape Online Strategy launched in 2003 also sought to provide legislative bedrock to develop access to public services on line in the country Naidoo(2007:42). The government of Rwanda launched the

National Information and Communications Infrastructure plan in 2001 to facilitate e-government development.

Importantly these models assess the e-readiness status of a country basing on factors such as level of ICT infrastructure development, availability of central government data bank/program or portal, level of ICT literacy amongst citizens and government employees, the easy of user access to the network and on line services as well as citizenry awareness to e-governance systems. These models inform of a fertile environment important for the e governance in local authorities to be fully functional hence the need to project their applications and usefulness. Notably having sophisticated ICTs equipment and wider connectivity alone will not guarantee operational efficiency. In this regard further interrogation of the research question for the present study with the view of further unravelling the impact of the strategies on service delivery in view of changing technology remain critical.

2.3.3 E-Governance Applications and Changes in Technology on Service Delivery

According to Ong, (2005:19) e-governance mean more than making a website available on the internet. There are several models for measuring progress on the impact of ICTs on service delivery determined by various application models. One model was developed by the United Nations, while the other was elaborated by the Gartner Group, a well-known consultancy organisation. The UN established five categories for measuring progress towards e-governance (UN 2002). They are emerging web presence: one or a few websites offering static information. Enhanced web presence: growing numbers of web pages offering dynamic information. Interactive web presence: exchanges between users and governments (electronic forms). Transactional web presence: services such as purchases (licences) and payments. Fully integrated web presence: combination of information, exchanges and services. The above point to innovation in technology that has a positive impact on the outlook of service delivery. Gartner group formulated a four phase e government model. Phase 1, is information where e-governance covers presence on the website providing the general public with relevant information Savic (2006:39). The value to the public is that information is publicly accessible, processes are described and thus become more transparent, which improves democracy and service. Internally the organisation can also disseminate information with static electronic means such as intranet. This phase is all about information and in the context of local authorities it enables all the key activities of the city council to be known at a glance thus allowing all key stakeholders to contribute to improvement in service delivery from an informed position. Phase

2, is Interaction. During the second phase the interaction between the local authorities and the public increases (Ibid). A number of applications are offered so that citizens can ask questions via e mail, use search engines to locate information and are able to download necessary forms and documents. These are time saving functions since some applications can be done online which previously required a visit to the municipality counter during opening hours. Internally Local Area Networks (LAN), intranets and e mail can be used to communicate and exchange data. The final result is higher efficiency and effectiveness achieved because of on line availability of various applications. However, citizens in many towns and cities have to go to the offices to finalize the transaction, by paying a fee, handing over evidence or signing papers. Phase 3, Transaction. Phase 3 increases the complexity of the technology as complete transactions can be done without visiting the offices (Ibid:40). Examples are filing property tax, extending or renewal of licences. This phase is more complex due to legal, security and personalisation issues for example electronic signatures. It also involves e procurement applications positing that internal processes have to be redesigned to provide good service. As such whatever would be done needs government to create new laws and legislation that will enable paperless transaction with legal certification. The bottom line is that, now the complete process is on line, including payments, digital signatures which ultimately saves time, paper and money thus having a positive impact on service delivery. Phase 4, Transformation. The final, fourth phase is the transformation phase in which all the information systems are integrated and the public can get all required services at one virtual counter. One single point of contact for all services is the ultimate goal. The complexity lies also on the internal side. This includes the necessity for major cultural change, reengineering of processes and redefinition of responsibilities within the organisation. Employees in different departments have to work together in a smooth and seamless way thus calling for training in the world of ICTs. In this phase cost saving, efficiency and customer satisfaction are reaching highest possible levels. This phase strives to achieve the following vision of e-governance

- A single point of contact for constituent entities which would provide an integrated platform for services and an organisation transparent to its citizens and business.

- Focus on virtual agencies where information in the organisation is readily available to all allowing seamless interface to respective agencies involved in the transactions.

- State of the art internal information networks linking employees in different departments and reliable extranets allowing seamless flow of information from the outside world thereby facilitating collaborative decision making among departments and the public.

Al-Tawil and Said (2002:41) argue that an underlying effort to setup and upgrade the following critical infrastructure facilities throughout these phases should be sustained by

- Upgrading the information infrastructure.

- Establishment of a certification authority and encryption systems.

- Establishment of an electronic payment gateway and reliable postal addresses.

Once a vision and priority sectors for e-governance are established, it is important to assess how prepared a society is for such a project. Assessing e-governance readiness requires maximum examination of the organisation institutional frameworks, human resources available budgetary resources and inter departmental communication flows. However, it should be noted that even in developing countries where problems of low connectivity and human resource development (including low ICT literacy) are severe, using available creativity and careful planning can develop specific applications, services and information that can be delivered in a targeted, useful way to identifiable audiences (PCIP,2002). Sun et al (2013:9) forcefully argue that transformation phase is a complex and long process. It requires well planned efforts, substantial investments, comprehensive training as well as change of organisation service culture. Another problem associated with this phase is the methodology which can be used to determine that the phase has been reached. The measurement indexes to come with a topology based on three quality constructs which can be used for such purpose include measurement of system quality which covers ease of use, ease of access, functionality, easy to learn, stability, processing efficiency, meeting user requirements, system reliability and system availability (Hamilton and Chervancy 2012:16). Measurement of information quality is another dimension covering completeness of information output, data exchangeability, content completeness, information accuracy, understandability, usability, timeliness, conciseness and up-to-date information (Swanson 2009:8). The other index is measurement of service quality which covers empathy, service attitude, communications skills, cordiality, understanding user's needs, trustworthy, timeliness, professionalism and respecting users and honouring promises (Johnson et al 2007:95). To achieve maximum benefits from the cross range of IT systems it is critical

that the transformation stage be reached by the local authorities for the service delivery to improve and also allow interactions among and between various stakeholders. As such oorganizations should have skilled manpower to operate equipment which also requires continuous training on current trends in the ICT world. Having looked at various application system the study sought to establish whether the City council were adequately skilled to apply the applications operate the organisation equipment.

2.4 Training

The level of ICT literacy is also a factor to consider when assessing the e-readiness of a country. According to Azab et al (2009:78) human resources technological skills determine the degree of readiness a country is to adapt e-governance systems. This implies that having ICT literate personnel is critical for success of e-governance initiatives. According to Moon (2009:62) lack of qualified ICT staff causes a delay in the e-governance readiness status for public enterprises. An organisation should show the will to assist its personnel to acquire ICT skills. Some organisations offer training courses for all employees to improve their ICT skills for example the government of Rwanda where the government funds the training of all its employees as well as adopting an ICT skewed education curriculum in learning institutions with the overall objective being to achieve an e literate citizenry status Monga (2009:65). Zanied et al (2007:89) holds that the major challenge for organisations e-readiness is the lack of ICT literacy training so that citizens will be capable of utilizing e-governance platforms provided by government or public institutions.

The nature of training conducted within an organisation is very essential in reacting to changes in technology. Paret (1999:32) postulates that though resources are the most important assets, training becomes the glue that allows human resources to bind themselves into operationally effective social forms and working ethics. Possessing resources in the form of equipment and manpower is inadequate if these two assets are not appropriately structured and trained to solve certain tasks in a coherent way. This requires a continuous evaluation of training programmes to ascertain their effectiveness in equipping personnel with relevant skills. Based on this assertion this study sought to establish whether the City council continuously reviews its training programmes to ensure that its personnel is adequately equipped with relevant skills to operate in the current digital environment.

Training has increased in value in today's environment where jobs are becoming more complex and are continuously changing due to technological advancements. It is an integral part of human resource development and to make the best use of human resources, effective training must be provided to employees. Measuring the impact of training on work performance and its contribution to organisational results is a matter of great concern for management in all types of organisations, the municipalities inclusive (Statt, 2000:8). How effectively and efficiently local authorities accomplish their operations, missions and tasks is closely related to the training methods and the gadgets used. Training intends to establish and improve the capabilities of personnel in their respective roles as well as blending them with the equipment they use.

According to Statt (2000:15), training effectiveness is determined by the order in which different training events are scheduled in order to obtain the required training benefits. One of the principles to consider when designing a training programme is that later material has to be built on earlier material. This implies that available training programmes must be constantly reviewed to meet organisational and technological changes. The present study therefore sought to establish whether the city council frequently reviews its training programmes to evaluate their effectiveness in addressing changing technological requirements.

The effectiveness of a given training programme depends on its interaction and alignment with various forces that include the environment, organisational policy and individual learner needs (Noe, 2007:36). Thus, an effective training programme should, within the confines of the existing organisational policy and environment, be designed and delivered in a way that satisfies the learning needs of its target population. This ensures that recipients of the training programmes are equipped with adequate skills that enable them to adapt to changing environments, at the same time contributing to the achievement of organisational goals. The current e governance digital requirements demand that organisations change their training methods to suit the demands of modern environment. Old training methods may not adequately equip personnel with relevant skills that will enable them to operate in the current environment. This study therefore sought to establish whether the training provided in the city council to its IT personnel and other officials adequately equips its members with skills that are relevant in today’s e governance operating environment.

Human, capital and financial resources are invested into employee training and retraining at an unparalleled rate (Galvin, 2002:47). Most organisations spend billions of dollars on training

annually representing a major investment in the human resource (Frazis et al, 2000). Those organisations that do not invest in employee training do not make best use of the human resource and may not be able to unlock the potential possessed by their employees which is also important in coming out with acceptable key result areas for service delivery. According to Phillips (1997:18) organisations that support training activities effectively are characterised by investment in newer technology, evaluate training effectiveness, budgets that have training components and these organisations choose not to reduce training or training budgets during financially trying times. This study therefore sought to analyse the commitment of the city of Harare towards training of personnel.

There are various strategies through which an organisation can review the effectiveness of its training programmes. One of these strategies is the identification of training needs. Training need is a condition where there is a gap between the current and the expected in terms of incumbents' knowledge, skills, attitudes and behaviour for a particular situation at a given time (Arthur et al, 2003:43). According to Phillips (1997:31) conducting a needs analysis is the first step in developing an employee training system. This is the foundation upon which an organisation can determine the effectiveness of its training programmes. The purpose of needs analysis is to determine the type of training needed in an organisation, as well as the extent to which it enables the achievement of organisational goals (Phillips, 1997:61). As such organisations need to keep abreast with technological changes as they stimulate the need to alter training programmes to align with the changes in technology. The information technology has evolved greatly since the dawn of e governance requiring organisations to continuously alter their training programmes since some of the skills become obsolete. The training needs analysis can also help the city council to align its training programmes towards the achievement of organisational goals which in turn assist in service delivery and adoption of vital e governance applications.

According to Driskell (2011:4), training within organisations should be continuous no matter one holds a qualification in a certain field. The type of training and the programme content affects the effectiveness of a training programme. After training needs have been established, there is need to plan the course content. This involves the main subject areas to be covered, how it will be taught and the time available for training. The extent to which the subject content meets the needs of those attending is analysed. A training programme is important as it specifies what will be taught and how it will be taught. It also provides the framework and

foundation of training. Most municipalities have resorted to participating in joint training programmes with other organisations which helps to identify gaps in their own training. This has become a critical requirement in the current digital environment where local authorities are discouraged from living in isolation. The question remains on whether the knowledge and skills acquired are then implemented in the organisations. Failure to do so may be a wastage of resources and those who would have acquired the knowledge may end up leaving the organisation due to lack of practice. The city council also participates in combined training programmes hence the need to establish whether the organisation benefits from the acquired knowledge.

Kalemci (2005:9) stated that recognition of the training methods and measurement techniques is crucial for the organisation's training success. The effectiveness of a training programme therefore depends on the selection of training methods. A training method is a strategy or tactic that a trainer uses to deliver the content so that the trainees achieve the objective (Wentling, 1992:9). Selecting an appropriate training method is perhaps the most important step in a training activity once the training contents are identified. There are many training methods, but not all of these are equally suitable for all topics and in all situations. To achieve the training objective, a trainer should select the most appropriate method for the content to ensure the achievement of the training objective. Advances in technology have brought about improved learning methods mostly in terms of teaching aids. As such most of the old tactics have been rendered ineffective hence the need for developing newer tactics. These changes should therefore be fused into training programmes so that personnel upon completion of any training programme are able to operate and adjust to the changing digital environment.

The reason to conduct and implement training is a key factor in determining the effectiveness of a training programme in achieving desired outcomes. If the training purpose was not clearly defined previously, the desired outcome is difficult to achieve (Punia, 2013). Training is expensive if it does not serve the purpose for which it is given. It must be able to increase the capabilities of employees and as well as the organisation otherwise money and reputation will be lost. Various organisations usually commit a large portion of their budget towards training of their personnel of which the city council is no exception. As such it is important that they make value out of the resources they would have committed to training. This study therefore endeavoured to establish whether Harare City council receives value for money invested in training in the world of ICTs.

The skills of the trainers have an influence on the effectiveness of a training programme Driskell (2011:44). The organisation should consider the qualifications of the trainers in terms of the subjects being taught. The training staff needs to possess the technical and instructional knowledge, skills and attitudes to fulfil their assigned duties. According to Statt (2000:51), the roles of the trainer fall into three that is knowing the subject matter, knowing how to impart the subject matter and knowing how to help the people involved in learning about the subject matter. If the training staff of an organisation has the requisite skills and expertise and are conversant with changes in technology, the organisation is likely to achieve its training objectives thus meet its key areas of service delivery. This requires that the employees be continuously upgraded to ensure that they are conversant with changes in digital technology.

From the above reviewed literature, it can be concluded that the organisation capability depends on the availability of modernised equipment, skilled personnel and its ability to interact with other institutions for comparison purposes. There is need also for a municipality to know the nature of its core mandate for it to be able to adjust its operations accordingly. The literature reveals that several studies have been conducted to analyse the infrastructure available and the impact of changes in digital technology on local authorities capability but none have been conducted to evaluate its centrality in the Zimbabwean municipality context hence the need for the present study.

2.5 Empirical Literature Review

2.5.1 Russia

Hedenskog and Pallin (2013:) conducted a study in Russia to assess Russia's local authorities' e governance applications implementation and capability. The researchers analysed selected factors they viewed as influential to digital capability. To obtain primary data they used official Russian documents, government and municipal information, statements from Russian officials, scholarly publications and news media reports. Interviews were conducted with Russian scholars and representatives of Russian institutions in order to increase the relevance and reliability of the assessment. The research found out that since 2008 the Russian Local government ministry had been going through a large-scale reform programme with the purpose of improving adoption of e governance applications especially in terms of readiness and availability. This was done through downsizing, restructuring, increasing their budget, changing the curricula for IT training, introducing new concepts and participating in joint

training amongst the local authorities. With 1.1 billion interactions annually, Russian municipalities On Line Portal is key for the delivery of public services in the country. Electronic transactions in the municipalities represent almost three quarters of all transactions between the municipalities and the citizens (GOL,2014:47). The researchers recommended that organisations that wish to build strong IT instruments need to focus on sustaining programmes financially to promote research and development. The researchers in this study managed both primary and secondary sources of data which has positive effect on the validity of the results which the present study also adopted. The strategies used by the Russian municipalities to improve its service delivery through e governance may also be useful in the city of Harare hence this study sought to identify the strategies employed by the city to enhance its service delivery through ICTs.

2.5.2 China

A similar research was conducted in China by Paul (2014) who sought to analyse the approach adapted by China to embrace the Revolutions in Municipality Affairs (RMA) and its implications on the world. The study focused on the way the Chinese were moulding the RMA to suit their circumstances. The study found out that the Chinese were restructuring, purchasing and producing sophisticated ICT fighting equipment, while downsizing to retain an optimal personnel structure. The researcher recommended that local authorities must modernise their organisations and the structures should be tailor made to suit the ever changing digital environment. Chinese are the most enthusiastic ICT users which can help explain the high rates of take up of the countries on line public services. According to a 2014-2015 EKOS survey on trends in internet usage and access, 78 % of Chinese households had used the internet to pay bills and the households with high speed internet access outnumbered those with dial up access. The researcher on this study only focused on the internet for data collection. Though it may be quicker to access data from the internet, the researcher might rely on outdated data which will then affect the reliability and validity of the research findings. To overcome this challenge on the present study the researcher consulted other sources such as books, journals and Chinese publications.

2.5.3 India

A study was conducted by Krepinevich (2012) in India to establish the strategies implemented by India to evaluate its local authority e governance applications and capability. The study found out that India is one of the countries that have fully utilised the e governance strategy of local authorities to citizen's relations in improving its services and dissemination of information. India's traditional partner in the advancement of its military technologies has been the former Soviet Union. The fall of the Soviet Union and a warming of relations with the US prompted India to look other places for its needs in the ICT world. Israel became an important partner in India's struggle to upgrade its knowledge base and this has paid dividends. Turner (2013:16) point that 71% of internet users have used local authorities' websites in 2015 and 31% said their most recent contact with municipalities was through internet. Furthermore 81% of Indians e government users were satisfied with municipal services. Remarkably, the government of India made reasonable strides to encourage local authorities to encourage on content management premised on communicating right data to right people at right time to ensure contents are need based, relevant, up to date and accurate thus avoiding duplication of content. In this regard local authorities have managed on web based publishing, format management, indexing and continuous updating of information which has remained central in access of data by the end user.

2.5.4 Pakistan

A study was conducted by Corum (2012) to find out the strategies implemented by Pakistan to modernise its municipalities in the digital era. The study found out that Pakistan's municipalities maintains good relations with other country's local authorities and revealed that her largest partner has traditionally been China. Exchanges and interactions between the two nations' municipalities have been on the rise over the past several years, especially in terms of cooperation on training and technology. China has served as Pakistan's source of IT equipment and the two countries have participated in joint projects in sharing e governance application technology. Other nations with which Pakistan conducts exchange programmes include the United Arab Emirates and Iran. Turkey is another nation with which Pakistan is conducting joint operations. The researcher also observed that the Pakistan's local authority's close cooperation with its counterparts in other countries has resulted in changes in equipment which has improved her service delivery and interactions with citizens. The researcher therefore

encourages countries to have good relations with other municipalities to be able to improve to evaluate their technology upgrades through learning from other organisations outside their borders.

2.5.5 South Africa

In the African region, the South African local authorities have one of the most developed platforms (Davidson, 2010). 76 % of internet users believed the internet has made it easier to find information about local authorities' programs and services. 90 % of South Africans internet users and 38% of non-users expected to use the internet to deal with the government in the future, while 42% of the population believed they would conduct most of their transactions with the local authorities on line in the next five years. This has helped South Africa municipalities to maintain a competitive edge over other African local authorities. This has shown the importance and advantage of adopting new technological trends to derive competitive advantage. The city of Harare can also gain a competitive edge by investing in latest digital technology taking a cue from South African local authorities strong presence in digital applications and vibrant interactions with the citizens.

2.6 Summary

In this chapter the researcher provided both theoretical and empirical literature review. The theoretical framework guiding this study was outlined. Literature relevant to e-governance applications and the impact of changes in technology on service delivery was examined. The next chapter focuses on the methodology which was used to conduct the study.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

The previous chapter focused on literature related to the present study. Chapter 3 looks at the research methodology that was followed in conducting this study. This chapter covers the research design, description of population, sampling technique, data collection instruments, validity and reliability as well as the data presentation and analyses plan.

3.1 Research Method

Research methodology describes how the study will be carried out. It focuses on methods or techniques that will be used in conducting the research, the logic behind the methods employed, and justifications for each of the approaches or techniques. The methodology is concerned with the research design, description of population and the sampling approach data collection instruments, data presentation and analyses plans. The study adopted the qualitative research method. Babbie (2001:19) contends that the objective of the qualitative approach is to explain and predict human behaviour. The major characteristics of qualitative research are that: it seeks to provide answers to a question(s), it collects evidence, it produces findings that were not determined in advance, and it produces findings that are applicable beyond the immediate

boundaries of the study. The qualitative research method was chosen on the strength of its ability to provide complex textual descriptions of how people experience a given research issue. Hence it provides information about the human side of an issue, such as contradictory behaviours, beliefs, opinions, emotions and relationships of individuals.

3.2 Research Design

According to Phillips (1971:71), research design constitutes the blueprint for the collection, measurement and analysis of data. It is the plan and structure of investigation so conceived as to obtain answers to the research questions (Kerlinger, 1966:31). Chilisa and Preece (2005:2) define research design as the basic plan or method which one follows in gathering, analysing and interpreting information. For the present study, the researcher used the descriptive survey approach. According to Hamiton (1976:43), the purpose of descriptive surveys is to factually describe situations, perceptions or events. The descriptive survey allows the researcher to collect data on phenomena which cannot be directly observed such as opinions and perceptions. Descriptive surveys also allow researchers to assess attitudes and characteristics of a wide range of subjects. This design is more appropriate for this study as it allows the researcher to collect large sums of data pertaining to opinions from employees and management of the city of Harare and residents of Harare.

3.3 Population

A population is a complete set of persons or objects that possess some common characteristics that are of interest to the researcher Nieswiadomy (1987:27). The population for this study were city of Harare employees based at Rowan Martin, Headquarters staff in Julius Nyerere Street, citizens from five selected suburbs, private sector, business sector, civil society organisations and other key government officials.

3.4 Sample and Sampling Technique

A sample as defined by Wegner (2007:53) is a subset of the target population. Wegner (2007:19) describes sampling as an act or process of selecting a suitable representative part of the population for the purpose of determining characteristics of the whole population. A sample of 110 participants was selected from the population using stratified random sampling. Castillo (2009:22) states that stratified random sampling is a probability based technique of selecting a

sample for which all members of the population have equal chances of being selected. The strata for the sample was based on length of service and rank category to attain a high degree of representativeness for the study. The researcher chose 60% of the respondents from the management and non-managerial category making a total of 30 managers and 20 non-managerial. Also 60 households selected from five suburbs were identified. Though managers are fewer than non-managerial personnel in numbers, they remained a major source of valid information as they are part of the policy makers and they play a leading role in the improvement of the organisation's performance.

3.5 Data Collection Methods

The researcher used questionnaires as the main data collection tool. Questionnaires, despite their own limitations, remain a better option for collecting large volumes of data from a variety of sources. While the cost of printing is usually high and the rate of return might be generally low, questionnaires can be distributed widely by mail, internet and hand delivery.

3.6 Research Instruments

The researcher used the questionnaire and interview guide as the main research instruments for this particular study. For this study the expected responses were strongly disagree, disagree, not sure, agree and strongly agree. The respondents had to choose one response from the five responses. The research instruments were designed in such a way that the research objectives were adequately covered. The questionnaire was categorised into four sections where the first section dealt with demography, the second section dealt with the adoption of various applications and impact of changes in technology on service delivery, the third section focused on the strategies to evaluate the digital technology of the municipality while the last section sought to evaluate the effectiveness of the training offered in the local authority in meeting changing e governance requirements. Questionnaires were delivered by hand to the research participants, while the researcher personally conducted the interviews.

3.6.1 The Questionnaire

The qualitative method of data collection suffers from the failure of respondents to open up and give solicited answers when faced by the interviewer. In efforts to address this problem, a self-administered questionnaire was employed as the main research instrument. Leedy and Omrod (2002:19) describe a questionnaire as a common-place instrument for observing data

beyond the physical reach of the observer. The researcher used both closed and open-ended questions. Babbie and Mouton (2001:10) assert that close-ended questions restrict response choices in terms of presented alternatives, while the closed format questions provide for the simplification of subsequent data analysis.

The questionnaire was chosen in this study because it is cheaper to administer, less time-consuming given the time constraints, and because of its ability to achieve a wide coverage. Babbie and Mouton (Ibid) also note the efficacy of the questionnaire by alluding to its effectiveness in collecting data from literate respondents. The questionnaire was thus suitable because all respondents were literate. The questionnaire also allows respondents time to analyse and understand items before selecting suitable answers. Self-administered questionnaires are also free from bias and guarantee anonymity, thus reduce pressure on the respondents which is often generated by the presence of the researcher when other instruments such as face-to-face interviews are used.

The questionnaire, however, has a few disadvantages. These include the low rate of returns, failure by respondents to comprehend questions and the danger of non-response on certain questions. In addition, responses to questions may not be genuine and truthful when questionnaires are used, an aspect that can easily be picked up when using an interview as a research instrument. In order to overcome these challenges, the researcher delivered the questionnaires by hand and collected same after an agreed period. The researcher also educated respondents on the requirements of the questionnaires. However, in using the self-administered questionnaire, the researcher was not be able to probe respondents or make follow-up questions in order to clarify certain answers.

3.6.2 The Interview Guide

In order to mitigate the weaknesses of questionnaires, the researcher developed an interview guide to conduct face-to-face interviews with personnel from City of Harare, private sector and business community. An interview is an exchange in which a researcher elicits information, expressions, or beliefs from respondents on a one-on-one basis. Denzin (2000:46) defines an interview as a conversation with a purpose, especially that of gathering information. Face-to-face interviews play an essential role in supplementing the data collected through the self-administered questionnaires. The researcher is able to solicit as much information as possible through probing for explanations where explanations were not clear.

Face-to-face interviews present the researcher with the opportunity to establish rapport with the interviewees, an element that proves vital in motivating them to give as much information as possible without any biases creeping into the interview process. The researcher is able to adapt questions as necessary, clarify doubts and misunderstood questions and ensure that responses are properly understood. It is also possible to detect non-verbal cues from the interviewees. Any discomfort, stress or problems are detected and action is taken to make the interviewee comfortable during the interview session. The face-to-face interview thus reveals information that is both complex and hidden and also facilitates probing of sentiments that underline expressed opinions. This enables the researcher to gather substantial data.

On the negative side, the researcher may find face-to-face interviews time-consuming and harder to compare responses as participants use different terms or expressions to explain the same thing. Good data recording, thorough training on listening skills and use of appropriate language help to minimize this problem. This is also avoided by exercising good judgement as well as testing and summarising understanding.

3.7 Instrument Validity and Reliability

3.7.1 Instrument Validity

Leedy and Omrod (2002:11) defined instrument validity as the degree to which an instrument measures what it purports to measure in the given context in which it is applied. It is important that one is sure that the instrument is actually measuring the variables that it is supposed to measure. The validity of a questionnaire may be compromised or reduced by the unwillingness or inability of the respondents to give full and accurate responses to questions. The validity of a questionnaire also depends on the sample used. Saunders et al (2009:61) gave three types of methods used to judge the accuracy of an instrument in terms of validity, namely; content validity, criterion validity and construct validity. In this study, the researcher used content and construct validity. Content validity refers to how well the instrument represents all the components of the variables to be measured, while construct validity refers to how well the instrument explains the differences in the levels of measurement of the variables to enable the respondents to make clear distinctions of judgement. To test for both content and construct validity of the instruments used in the study, the researcher designed the instruments with questions based on the research questions and objectives, hypothesis and the gaps identified

from the literature review. The instruments were presented to experts in the fields of e-governance to evaluate the content of the research instruments as well as its readability and clarity. The experts gave their advice, from which amendments were made to the instruments. The instruments were also put to test through a pilot study which showed whether the instruments were valid to yield the required results.

3.7.2 Instrument Reliability

Brink (1991: 710) defined reliability of a research instrument as 'the degree to which the instrument can be depended upon to yield consistent results if used repeatedly over time on the same person, or if used by two different investigators". It also refers to the extent to which other researchers would arrive at the same results if they studied the same case using the same procedures as the first researcher. Reliability therefore ensures that the research instrument is stable, consistent, accurate and dependable. This can only be achieved if the respondents clearly understand the questions in the instruments. Leedy and Omrod (2002:54) argue that questionnaires tend to be more reliable because of anonymity and hence encourage greater honesty and are independent of bias and influence. In order to test for the reliability of the questionnaire used in this research, the instrument was used in a pilot test conducted prior to the study which sought to check if it would yield consistent results. The pilot study also revealed whether or not the respondents clearly understood the requirements of the study.

3.8 Pilot Study

A pilot study is a small-scale preliminary study conducted before the main research in order to check the feasibility of the study or improve the research design (Seaman 1991:4). It is carried out before the actual research to test whether the research variables are actually observable and measurable (validity) and to determine if the research instruments actually measure what they are intended to measure (reliability). A pilot study is usually carried out on members of the relevant population, but not on those who will form part of the final sample. This is because it might influence the later behaviour of research subjects if they already have been involved in the research.

The pilot study reveals problems that respondents have with either the understanding or wording of the instrument. These can then be corrected before the actual study is embarked on. According to Seaman (1987:15), a pilot study is well worth doing as pitfalls and errors that may prove costly in the final study may be identified early and information may be obtained

for improving the project or assessing the feasibility of the study. In this study, questionnaires were dispatched to five respondents who represented 5 % of the sample. Amendments were then made and the questionnaires were sent back after three days to test whether the pilot sample elicited the same results as were expected from the actual research.

3.9 Data Presentation, Analysis and Interpretation

Data collected for this study was mainly qualitative in nature. In research, unprocessed information or raw data is meaningless to the researcher unless it is presented in such a manner that it makes sense to the readers. Polit and Hungler (1995:36) agree that, "data collected in a study is extensive and therefore needs to be processed and analysed in some orderly coherent fashion so that patterns and relationships can be discerned".

3.9.1 Data Presentation and Analysis

In this study, data was presented with the aid of tables, graphs and charts. The researcher used a computer to organise the data. These techniques allowed the researcher to summarise and express qualitatively, the strengths of relationships. The careful classification, organisation and combination of field notes and questionnaires required patient checking and cross-checking and the application of systematic techniques. The researcher used the coding system to categorise and qualitatively analyse the data by breaking it into chunks and bringing meaning to the data (Neuman 2000:12). Thematic analysis of the data was conducted based on the research objectives generated from Chapter One (Smith 1995:35). These themes appear as major findings in the study under separate headings.

3.9.2 Data Interpretation

Polit and Hungler (1995:33) state that data interpretation is the process of making sense of the research results and examining the implications of the findings within the broader research context. In this research study, the researcher explained the findings and interpreted the meaning of the findings in relation to the stated research objectives, hypotheses and statement of the problem.

3.10 Summary

This chapter looked at the research design chosen for this study. The population and target population for the study were defined. The researcher gave details of how the sample was chosen from the entire population and its composition was also highlighted. The data collection instruments were described and their choice justified. The researcher also discussed the data presentation and analysis procedure. The next chapter presents data presentation, analysis and interpretation.

CHAPTER 4

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.0 Introduction

This chapter presents the findings of the study. Bar graphs, pie charts and tables were used to present the data. Data presentation, analysis and interpretation were done under the headings demographic information, adoption of e-governance applications and impact of technology on service delivery, strategies used to evaluate technology and relevance of training provided in the local authority.

4.1 Questionnaire Administration and Interpretation

The researcher distributed 110 questionnaires and 90 were returned. This amounted to 90% response rate, which was deemed good enough to enable the researcher to come up with valid conclusions. The researcher personally delivered the questionnaires to the respondents and made follow ups by telephone calls hence the high response rate.

In order to be able to interpret the responses by respondents, each response category was assigned an arbitrary score. The following scores were thus used, and the highest possible score for each section depended on the number of items on each section of the instrument:

Strongly Disagree 1

Disagree 2

Not Sure 3

Agree 4

Strongly Agree 5

4.2 Demographic Information of Respondents

4.2.1 Frequency Distribution by Sex

Table 4.1: Frequency Distribution of Respondents by Sex

Sex	Frequency	Percentage
Female	30	33
Male	60	67
Total	**90**	**100**

Analysis

Table 4.1 shows that 16% of the respondents were female while 84% were male.

Interpretation

The results of the study reveal that most of the study respondents were male. According to the researcher, the sample was deemed to be a true representation of the population. This is because of the consideration that the city of Harare by its nature is a male dominated organisation and also many households are owned by men who mostly pay rates, hence it was not possible for the researcher to obtain an equal number of male and female participants.

4.2.2 Frequency Distribution by Rank Category

Table 4.2: Frequency Distribution of Respondents by Rank Category.

Rank	Frequency	Percentage
City Employees	30	33
Residents	60	67
Total	**90**	**100**

Analysis

Table 4.2 shows that 33% city of Harare employees while 67% were residents of the city.

Interpretation

Table 4.2 above shows that there were more residents in the study relative to the city employees. The composition of the sample also at the city council was largely managerial and this was determined by the consideration that they are usually involved in policy formulation and implementation than non-managerial. This was based on the proposition by Schneider (2016:17) that the ability of an organisation to convert resources into digital and modern capability is dependent on the quality of leadership. Non-managerial employees were however included in the sample to establish how they perceived the city council preparedness to effectively deal with the changing e-governance applications. In most cases the non-managerial are the operators of equipment hence their opinions were vital to the study. On the other hand, the citizens were the main beneficial of the e-governance applications hence their views were also critical to this study.

4.2.3 Frequency Distribution by Period of Service

Table 4.3: Frequency Distribution by Period of Service

Length of Service (Years)	Frequency	Percentage
0-5	7	16
6-10	15	33
>10	23	51

Analysis

Table 4.3 shows that 16% each of the respondents have served the organisation for 0- 5 years, another 33% have served for 6-10 years while 51% have been in the organisation for more than 10 years.

Interpretation

Basing on the data above, it shows that the majority of the respondents (51%) have served the organisation for more than 10 years. Based on their experience with organisational activities and operations, they were expected to contribute meaningfully to the study as experience is often deemed a reliable source of corporate memory (Scott, 2008:32). The majority of the respondents have witnessed a number of changes in the local authorities' digital environment be it in the adoption of e-governance applications or work experience making them capable to comment on the areas for improvement in the organisation to maintain service delivery.

4.3 The Impact of E-Governance Applications on Service Delivery

The aim of this section was to analyse the impact of changes of e governance applications on service delivery to the residents by the City of Harare. Responses to selected individual items are presented below.

4.3.1 Technology has both Negative and Positive Impact on Service Delivery

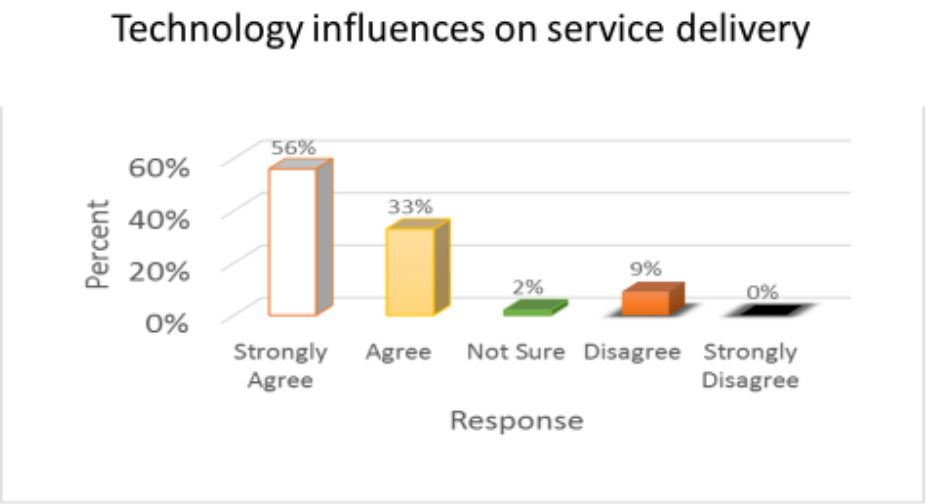

Figure 4.1 Impact of E-Governance Applications Systems

Analysis

The information presented in Figure 4.1 from the residents shows that 56% of the respondents strongly agreed while 33% agreed that adoption of e-governance application systems has both negative and positive effects on service delivery. Some 2% of the respondents were not sure while 9% disagreed that digital technology can affect the local authority capability to enhance service delivery both negatively and positively.

Interpretation

The results of the study reveal that e-governance applications have both negative and positive impacts on service delivery. This is in line with the proposition by Dunn (2007) that changes in technology can have both negative and positive effect on a society. As such, the City of Harare should strive to avoid experiencing the negative effects while embracing the positive aspects of technological advancements. Important to highlight is that some derived convenience whilst others remained mired in the old systems thus could not benefit from the transformation.

4.3.2 Technologically advanced local authority

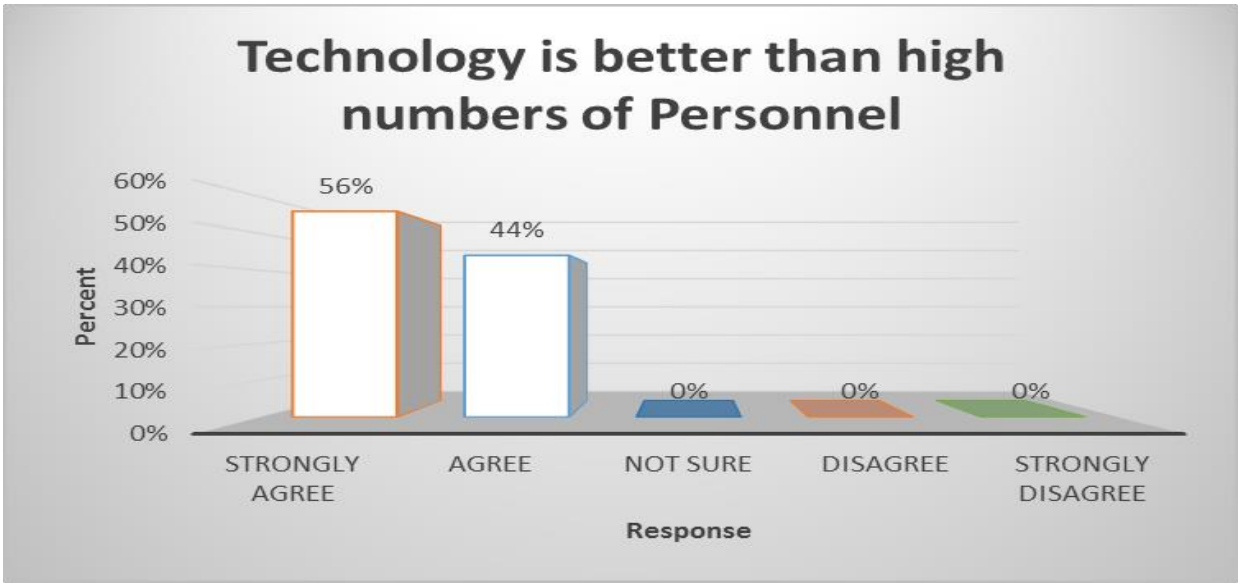

Figure 4.2 Technology and number of personnel

Analysis

The graph shows that 56% of the respondents strongly agreed while 44% agreed that technology can give a local authority an advantage on service delivery. None of the research participants disputed the fact.

Interpretation

From the results of the study it is clear that a technologically advanced local authority is more powerful in terms of service delivery. This assertion is supported by Dunn (2007) who states that technology is often seen as the panacea to providing a comparative advantage in maintaining good service delivery. Ong (2005) further states that technology enhances quick results in interaction. Furthermore, Hedenskog and Pallin (2013) posit that the local authority that is able to harness and integrate sophisticated technology effectively into its operational yardstick will preserve the lead in service delivery. Technology has thus proven that the applications allows direct communication with residents through various platforms such as billboards, email, radio and television etc.

4.3.3 Embracing E-Governance applications helps reduce operating costs

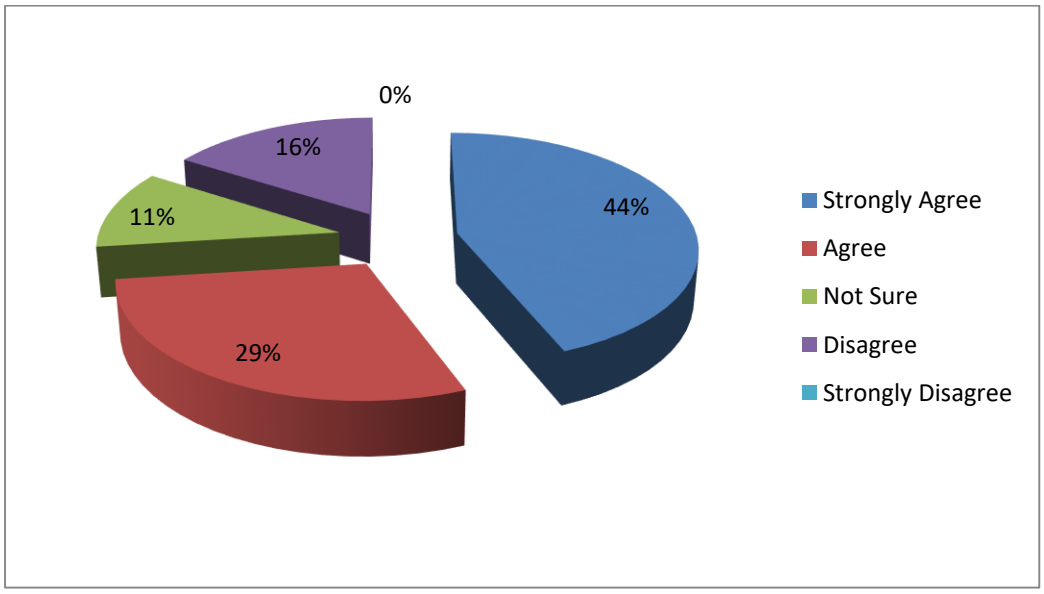

Figure 4.3 Reduction of Operating Costs

Analysis

The data collected reveal that 44% and 29% of the respondents strongly agreed and agreed respectively that embracing technology helps reduce operating costs while 11% were not sure and 16% disagreed.

Interpretation

The results of the study indicate that the majority of the respondents (73%) agreed that embracing technology has an effect on operating costs. One of the reasons could be that local authorities will communicate much easy with the residents. Manual applications are expensive and requires a lot of personnel and other resourses such as stationery, hence if a local authority is embedded in technological applications, operational costs are reduced as resources can be dedicated to development of the city council. Costs can also be reduced by the substitution of personnel for technological equipment even though the benefits are long term as the installation of technological equipment is very expensive. This high percentage of support to the posed statement also proves that City of Harare employees are aware of the benefits associated with technological advancement, meaning that they will not resist any efforts towards its development. The 11% who were not sure could be those members who have served for less than 5 years hence they have not had much experience in the organisation. As such they could have not yet witnessed how the City of Harare is benefiting from technology. However, the 16% who disagreed is quite a substantial number that cannot be ignored. This could be an indication that there are some departments within the organisation where the benefits of technology are not really visible. This shows that the City of Harare is somehow not fully embracing technology in all aspects. Due to the economic situation prevailing in the country, there is a possibility that the organisation may be facing financial challenges as far as technological developments are concerned thereby hindering the organisation from enjoying the benefits of technological changes.

4.3.4 Technology Improves Information Dissemination and Interaction

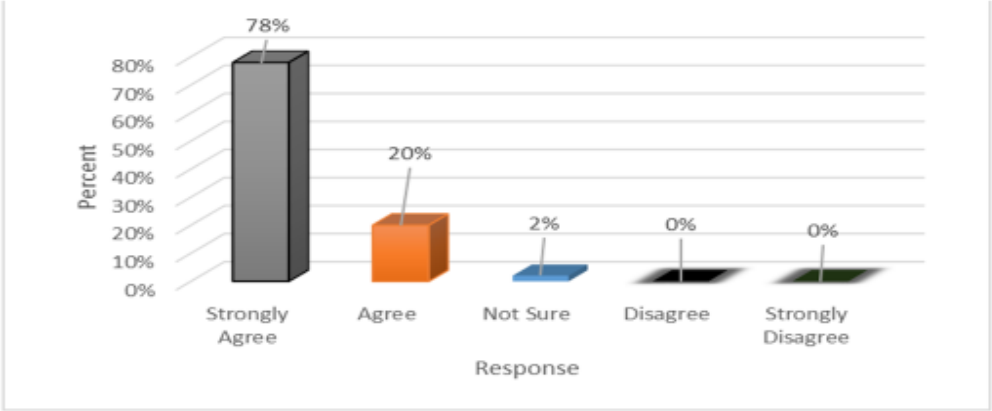

Figure 4.4 Technology Improves Information Dissemination and Interaction

Analysis

Data collected revealed that 78% of the respondents strongly agreed while 20% agreed that technology improves information dissemination and interaction of a local authority and its residents. Only 2% were not sure.

Interpretation

The fact that a total of 98% agreed that technology improves information dissemination and interaction, the residents believed that use of billboards, emails, text messages, radios and TVs positively assisted in the transmission of information and impact positively on interaction. This notion is also supported by Ong (2005) who states that with the effective use of technology, in the realm of information and interaction applications tend to be easy. Digital applications ensure that there is a fast transmission of information thus allowing quick interaction. The 2% who disagreed are outliers and their views are inadequate to disprove the assertion.

4.3.5 Technology Improves Transaction Activities

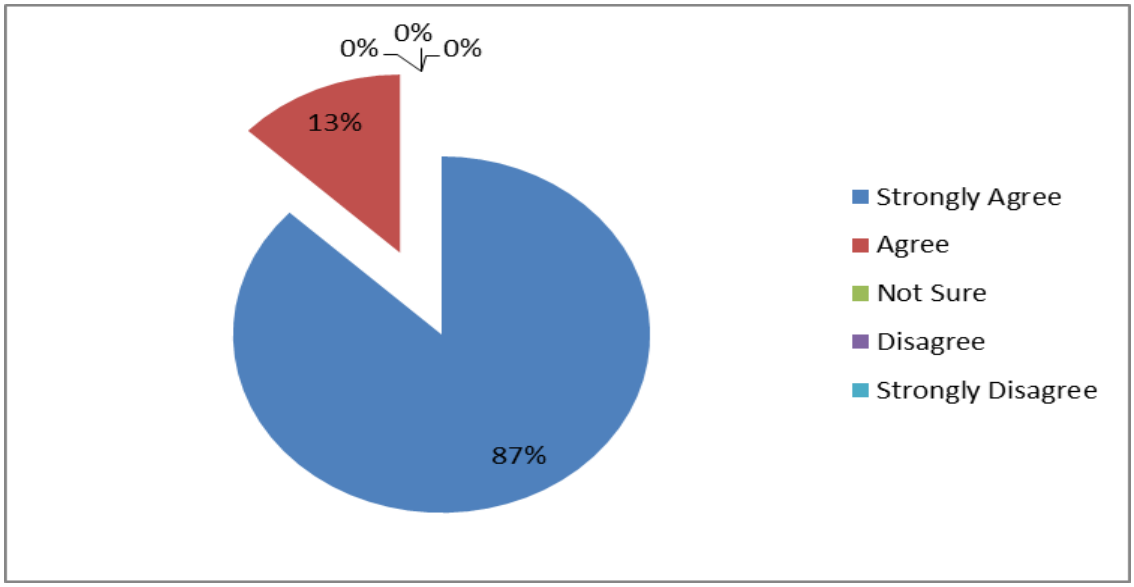

Figure 4.5 Improvement of Transaction Activities

Analysis

Figure 4.5 above shows that 87% of the respondents strongly agreed while 13% agreed that technology can help in transaction activities as opposed to the manual system.

Interpretation

The data presented on the pie chart presents overwhelming evidence that most of the residents are aware that technology improves convenience in transacting. If such a technology development drive is initiated residents might contribute fully and participate with no resistance existing. This is due to the fact that with the applications the local authority will be using matches the prevailing current technology, which gives the residents easy option to pay bills thus will benefit the local authority in terms of revenue inflow. This is in line with the observations made by Paul (1994:43) that technology can help in transaction costs as residents can pay in the comfort of their homes thus reducing on transport and conversely the city council cut on costs as papers are not produced and the activities require few personnel.

4.3.6 City of Harare Financial Capability to Keep Pace with Technological Changes

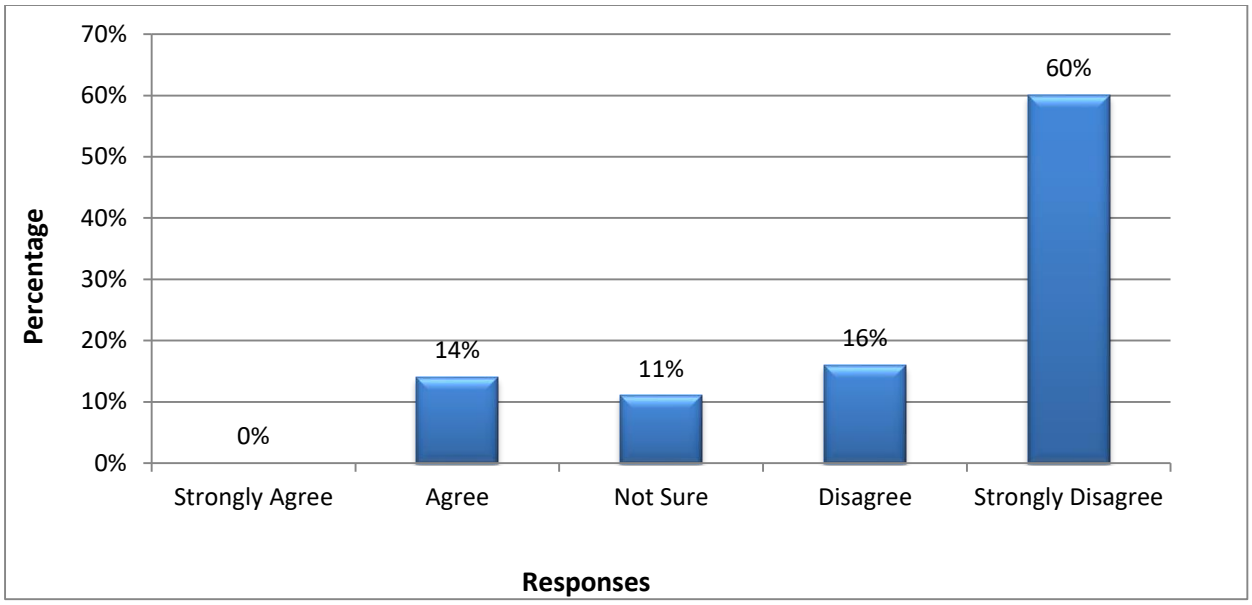

Figure 4.6 The City of Harare Financial Capability

Analysis

The results obtained reveal that only 14% agreed that the City of Harare is capable of keeping pace with technological developments while 11% were not sure. A further 16% and 60% disagreed and strongly disagreed respectively that the city council has an adequate budget for technological development.

Interpretation

The results obtained indicate that 76% of the respondents strongly disagreed to the City of Harare financial capacity to keep pace with technological developments. This statement was meant to prove or disprove the claim by Davidson (2010:12) that when a new system is introduced, improvements come rapidly making it costly and increasing organisational budgets of local authorities as they try to keep up with the pace of technological changes. According to Kaldor (1982:67), electronic technology has negative impacts on the economy as it absorbs resources that might otherwise have been used for business investment and innovation in newer and more dynamic industries. Keeping pace with advances in digital technology requires that local authorities have a strong budget channelled towards such investments. This shows that like other local authorities in most developing African countries that lag behind in terms of

technology, the City of Harare, is also affected by financial constraints, which is likely to slow down technological development.

4.3.7 Technological Advancements Require Self –Sustained Local Authorities

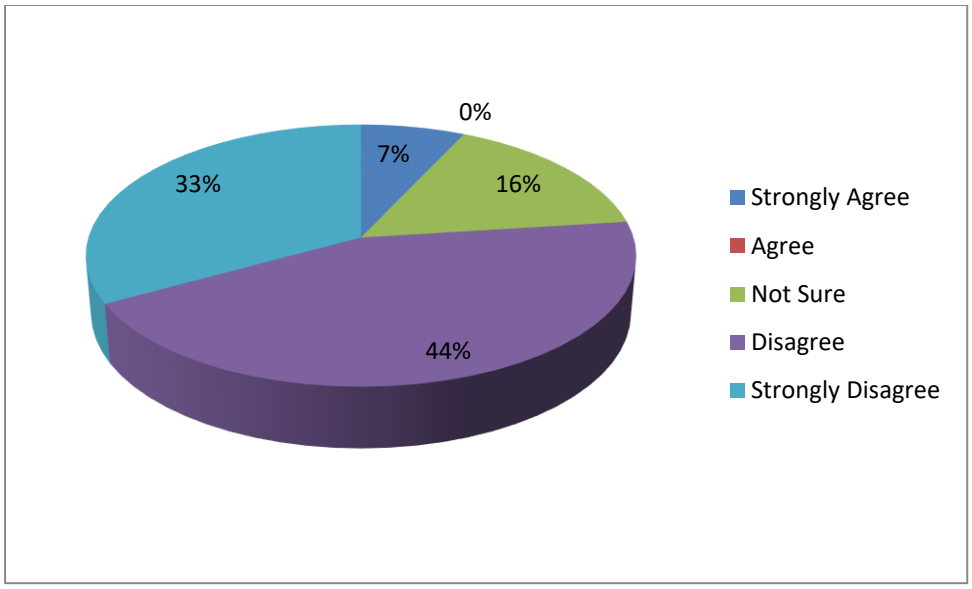

Figure 4.7 Requirement for Self-Sustenance

Analysis

The data presented in figure 4.7 reveals that only 7% of the respondents strongly agreed that the City of Harare does not have challenges in the acquisition of requirements for e-governance applications. Another 16% were not sure while 44% disagreed with 33% strongly disagreeing.

Interpretation

The statistics above show that the majority (77%) of the respondents disagreed that the City of Harare does not face challenges in the acquisition of ICTs hardware and software. This means that the City of Harare also faces the challenges of ICTs for e-governance adoption. This could be due to the reliance on external suppliers for equipment and spare parts since the country does not have the capacity to produce the required items. Halton et al (2012) state that such dependence on imports presents challenges for the importing countries. The 7% who agreed that the organisation does not have spare parts challenges could be merely outliers.

4.3.8 Summary of Responses on the Impact of E-Governance on Service Delivery

In order to facilitate analysis, all the 8 items in the first part of the research instrument were treated as a single variable, with the highest possible score (HPS) being 40. Cumulative scores for respondents were thus categorised in the following manner:

1-13 Low Impact

14-27 Average Impact

28-40 High Impact

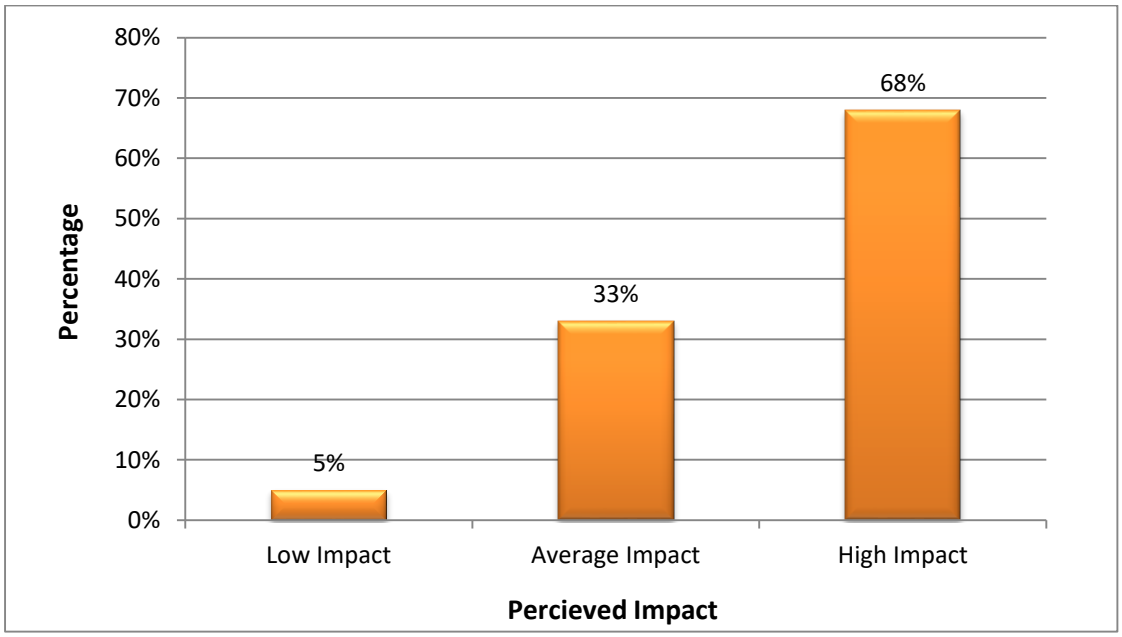

Figure 4.8 Impact of E-Governance on Service Delivery

Analysis

Figure 4.8 shows that the majority of respondents (68%) gave responses that implied that they perceived the impact of technology on the service delivery to be high. Some 33% thought that the impact was average while a further 5% were of the opinion that such impact was at a low level.

Interpretation

The results of the study show that the majority of the respondents perceived the impact of e-governance on service delivery on City of Harare to be high. This implies that the city council, just like all other competent entities, is subject to the dynamic technological culture that has continued to revolutionise both business and service protocols. While opinions remain subjective, the fact that City of Harare and residents acknowledge that the latest technologies occurring within the ICT industry may impact on capability means that the current human capital may be ready to adjust to new demands. Quite often, it is assumed that change management in any organisation is made simple when personnel possess high levels of knowledge of a particular change agenda topic. In this case, given the usual work ethic and discipline that is the epitome of local authorities, it can be concluded that barring economic challenges, City of Harare programmes that embrace the latest technology are likely to be readily embraced.

4.4 Strategies to Evaluate E-Governance Platforms

This section was meant to find out the strategies used by the City of Harare to evaluate e-governance platforms.

Serial	Strategy	Response				
		Strongly Agree	Agree	Not Sure	Disagree	Strongly Agree
1	Platforms Evaluation	78%	16%	7%	-	-
2	Decentralisation	2%	4%	89%	2%	2%
3	Joint Training	82%	4%	13%	-	-

Table 4.4: Strategies for Evaluating E-Governance Platforms

Analysis

The data presented in the table above reveals that 78% of the respondents strongly agreed, 16% agreed while 7% were not sure that the City of Harare conducts continuous evaluation on the relevance of e-governance platforms. There were no objections to this statement. The results also reveal that 11% and 13% of the respondents strongly agreed and agreed respectively that

evaluation has led to new technological developments in the city council. Another 33% were not sure, 20% disagreed while 23% strongly disagreed with the statement. Data presented in table 4.4 above also shows that 2% of the respondents strongly agreed while 4% agreed that the city of Harare has decentralized use of ICTs to various suburbs thus contributing to the technological developments in the local authority. The majority (89%) were not sure, 2% disagreed while 2% strongly disagreed to the assumption. The data presented in the table also indicates that 82% and 4% of the respondents either strongly agreed or agreed that the City of Harare participates in training with other local authorities and ICT stakeholders. Only 13% were not sure and there were negative responses to the statement.

Interpretation

The results of the study indicate that the City of Harare surely conducts continuous evaluation of e-governance platforms to keep pace with the digital developments. This shows that the city council is aware that continuous evaluation of technology is a pre-requisite to enable information dissemination, interaction and transaction. As stated by Posen (1984:21), the change in technology may determine the requirement for any digital advancement. The city council has the Research and Development charged with the responsibility of monitoring changes in the technological environment to ensure that up to date information is available.

The data obtained indicate that only 24% agreed that there has been development of new technologies in the City of Harare owing to vibrant analysis of the ICT environment. The majority (43%) disagreed while 33% were not sure. This is a clear indication that though there has been developments in technology as a result of continuous evaluation, the changes are not really significant. With the level of commitment to evaluation exhibited in this study, the slow pace of technological developments also amplifies the idea that the City of Harare is inadequately funded for such projects, hence the need for intervention from the line government ministry to ensure that such efforts are not put to waste. This also explains the reason why 80% of the respondents either disagreed that the City of Harare is adequately equipped to deal with current technological advancement of any nature which might mean that the city council lacks modern equipment possessed by other local authorities.

The results of the study show that the majority (89%) of employees in the city of Harare are not sure whether decentralisation of technology to other districts in the city contribute to technological developments. Only 6% agreed while 4% disagreed with the statement. From

these results it can be concluded that though the City of Harare has to an extent decentralized to other districts, there has not been significant changes in technology due to the information provided by the districts to citizens as there is no ICT expert. This is in contrast to the assertion by Paret (1989:16) that the presence of ICT expert in different stations functions as one instrument for monitoring new developments in technology, force structure and use of e-governance applications. The high number of respondents who were not sure could be due to the sensitive nature of the organisation where information was not readily shared.

The data presented in table 4.4 above show that the majority of the respondents (82%) strongly agreed that the City of Harare participates in joint training and exercise with other organisations. This shows that the City of Harare is aware of the need to maintain good relations with other local authorities and ICT stakeholders. As stated by Rosen (1996:51) with the fast-paced nature of changes in technology, it is highly desirable for a local authority to have close relations with its counterparts in other countries. This is also in line with the observations by Paret (1989:79) that in an era where knowledge is diffusing at a relatively rapid rate, the nature and extent of the relationships enjoyed by a local authority with their counterparts locally and abroad can become an important ingredient for its ability to react to changes in digital technology. Based on these findings that the City of Harare participates fully in joint training and exercises, there was a need to find out the impact of such involvement on the City of Harare capability.

4.4.1 Benefits from Joint Training

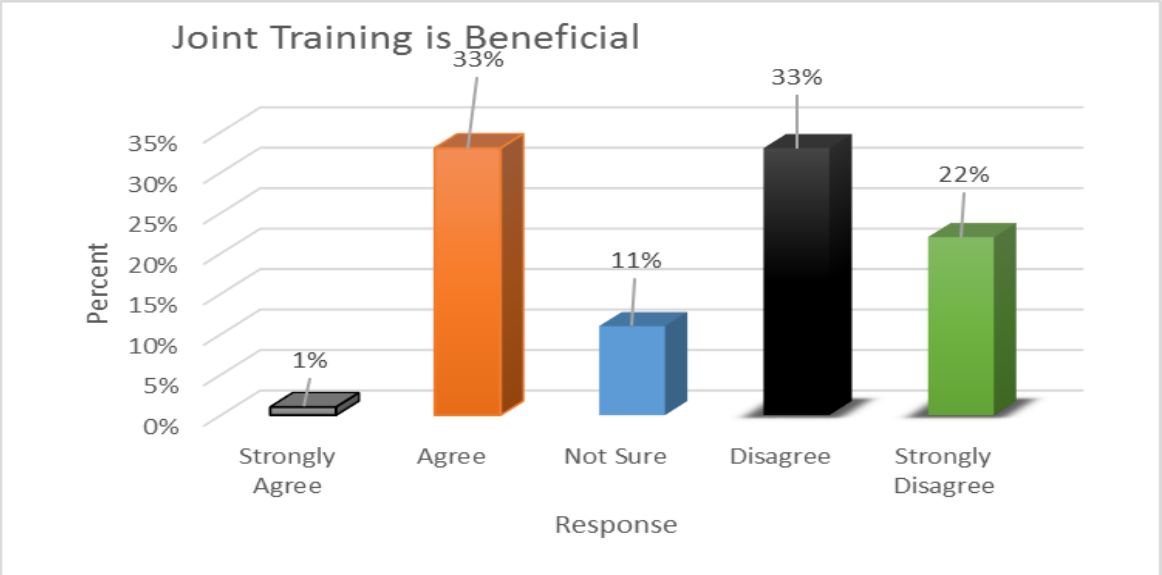

Figure 4.9: Benefits of Joint Training and Workshops

Analysis

The data presented in the bar chart above shows that 33% of the respondents agreed while 11% were not sure that the City of Harare has benefitted from the knowledge obtained by IT personnel from the joint exercises and training. The majority (55%) either disagreed or strongly disagreed with the statement.

Interpretation

The present study sought to establish whether or not the City of Harare is benefiting from or utilising knowledge gained from other organisations by seconded personnel to enhance its capability in the IT world. In response to a statement seeking to elicit answers to this effect, 33% agreed while 11% were not sure of the City of Harare benefits from sending members for joint training. The majority that is 55% disagreed with the statement. These results show that although the City of Harare may be benefiting from the knowledge obtained from such activities, the benefits are below expectations. The majority of the non-managerial staff responded negatively to the assertion. The researcher is of the opinion that due to the bureaucratic nature of the City of Harare which is synonymous with government organisations, these junior members could be having difficulties in ensuring that the knowledge gained is considered in the formulation of policies. The other reason for the City of Harare failure to benefit could be due to brain drain whereby members after external training and acquisition of higher qualifications leave the organisation in search for greener pastures.

4.4.2 Summary of Responses on Strategies to E-Governance Platforms

All the 8 items in this category were again treated as a single variable for which respondents could attain a HPS of 16. Responses were thus categorised into the following classes:

1-12 Reactive

13-26 Somehow Proactive

27- 40 Proactive

Figure 4.6 shows the summarised cumulative responses of respondents according to the categories above**.**

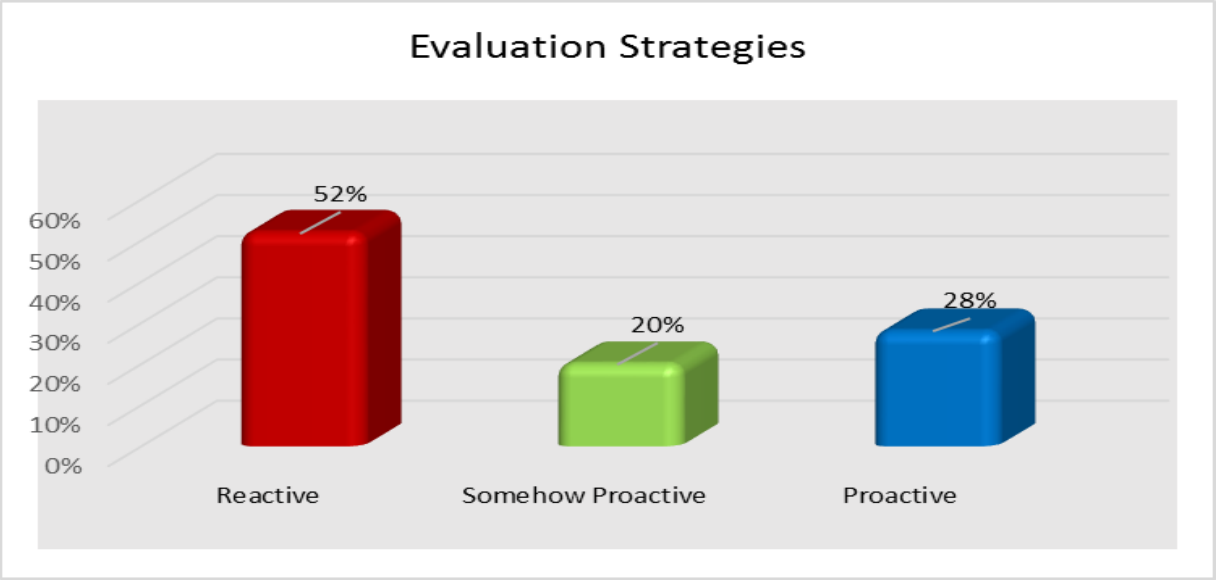

Figure 4.10: Judgement on evaluation of e-governance strategies by City of Harare

Analysis

Figure 4.10 shows that the City of Harare strategies for evaluating and upgrading its e-governance platforms are largely reactive. This is evidenced by the 52% who scored in the reactive category. On the other hand, some 20% deemed that the strategies were somehow proactive while the remaining 28% scored proactive.

Interpretation

The study revealed that the majority of the respondents felt that the City of Harare strategies were rather reactive. This means that the local authority capability is reviewed mostly when there is a need which could have emanated from environmental activities, joint training and exercises as well as advice from decentralisation inputs. The results were however almost equal (48%) to those who thought that the strategies were proactive. This could mean that the City of Harare does not only evaluate its capability in response to a demanding situation but routinely conducts the exercises.

The technological landscape in the world today is undergoing unprecedented changes, and the City of Harare is operating in a critical environment where, perhaps, the need for sustained vigilance needs not be over emphasised. The strategy dictates that a local authority must be proactive and embark on the upgrading of its platforms for developing talent and strategic acumen. Indeed, it can be assumed that the City of Harare is, to some extent doing well to continuously train its cadres at all ranks. Nonetheless, the fact that a significant percentage of the respondents in this study perceive the organisation as reactive rather than proactive would be worrying for authorities. In addition, this raises questions about the adequacy of the current efforts in the face of rapid global change. It is also true that the destiny of local authorities is vitally interrelated with that of the world, highlighting the need to keep pace. Any excuse, however valid, can only serve to make the city vulnerable to poor service delivery in the future. Data presented in this section calls for some serious consideration.

4.5 Relevance of City of Harare ICT Training

This section sought to establish the opinions of City of Harare employees regarding the training provided by the local authority and other organisations to assess its relevance to the changing technological environment.

4.5.1 Training and Reaction to Changes in the Technological Environment

Analysis

The data collected revealed that 100% of the respondents agreed that the nature of training provided within the IT world is essential in reacting to changes in digital technology.

Interpretation

Results indicate that all the respondents strongly agreed that the nature of the training provided in an IT setting contributes to its ability to react to changes in digital technology. This is in line with modern trends where the local authorities environment is no longer predictable, requiring organisations to be able to adjust and operate in any changing situation (Schneider 2016:19).

4.5.2 Training Binds Personnel and Equipment

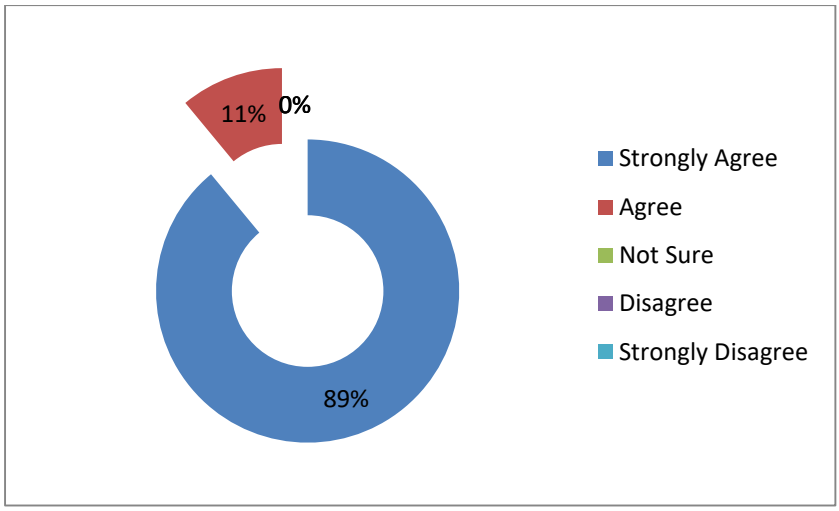

Figure 4.11 Relationship between Training and IT Equipment

Analysis

Results show that 89% of the respondents and 11% strongly agreed and agreed respectively that training is the glue that binds together personnel and equipment to form an effective entity thus wanting to know more and inturn value its perpetuity. There were no objections to the statement.

Interpretation

From the data presented above, all the respondents that is 100% agreed that training is the glue that binds together personnel and equipment to form an effective collective entity. There were no objections to the statement. This shows that all the employees are aware of the importance of training in ensuring that people and the equipment they operate are compatible. This notion is also supported by Paret (1989:38) and Schneider (2016:34) who intimate that possessing resources in the form of equipment and manpower is inadequate if these two assets are not appropriately structured and trained to solve certain operational tasks in a coherent way. This acceptance by employees that training is critical in their capability to deliver effectively indicates that these employees are committed and if relevant training is provided to them it will definitely yield the desired results for the organisation. Trainees in such instances will be motivated and interested in the training programmes which are some of the principles of training.

4.5.3 Review of the City of Harare Training Programme

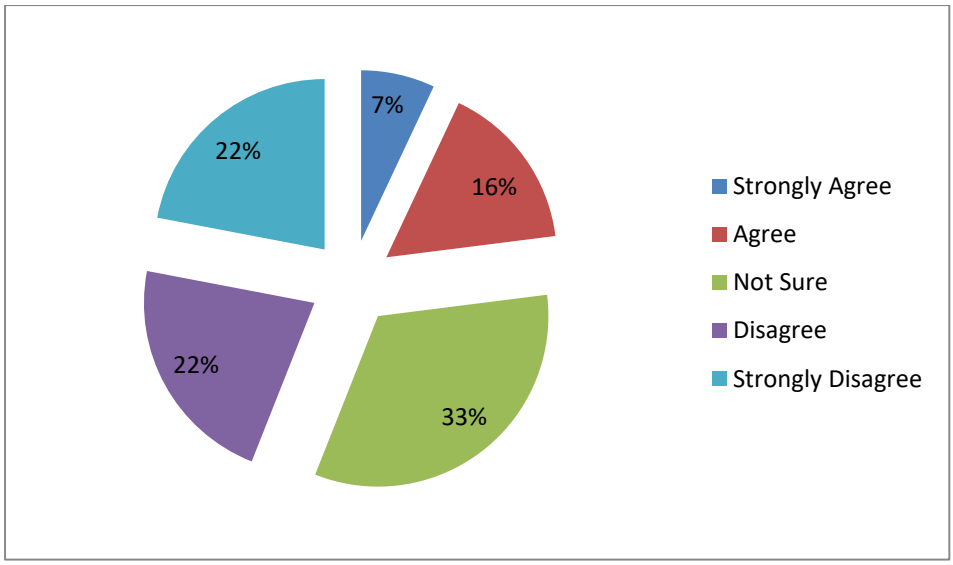

Figure 4.12 Review of the City Council ICT Training Programmes

Analysis

The pie chart above shows that 7% of the respondents strongly agreed while 16% agreed that the City of Harare continuously reviews its ICT training programmes in line with prevailing technological environment and developments. Another 33% were not sure, 22% disagreed while 22% strongly disagreed.

Interpretation

The previous question sought to establish the importance of training done by City Council employees in ICT. There was therefore a need to find out whether the City of Harare continuously reviewed the training programmes to ensure that they promote compatibility between equipment and its operators. The data reveals that only 23% of the respondents agreed or strongly agreed that the City of Harare continuously reviews training programmes. The rest (77%) were either not sure, disagreed or strongly disagreed to the statement posed by the researcher. Since those who agreed were mostly those who have served between 6 to 10 years, there is some evidence that there has been changes in the training programmes noting the fast changes in ICT landscape. Maybe this could be due to the introduction of the systems approach to training. However, due to the fact that the majority (77%) were not sure or disagreed explains that if the programmes have been reviewed, there has not been significant changes and this

exhibits that employees have areas which they feel require modification. Paret (1989:15) states the importance of continuous evaluation of training programmes to ascertain their effectiveness in equipping personnel with relevant skills. Statt (2000:65) also states that jobs are becoming more complex and are continuously changing due to technological advancements hence training should be able to address these challenges. Statt (2000:76) states that measuring the impact of training on work performance and its contribution to organisational results is a matter of great concern for management in all types of organisations, the local authorities inclusive.

4.5.4 Changes in City of Harare ICT Training Programmes

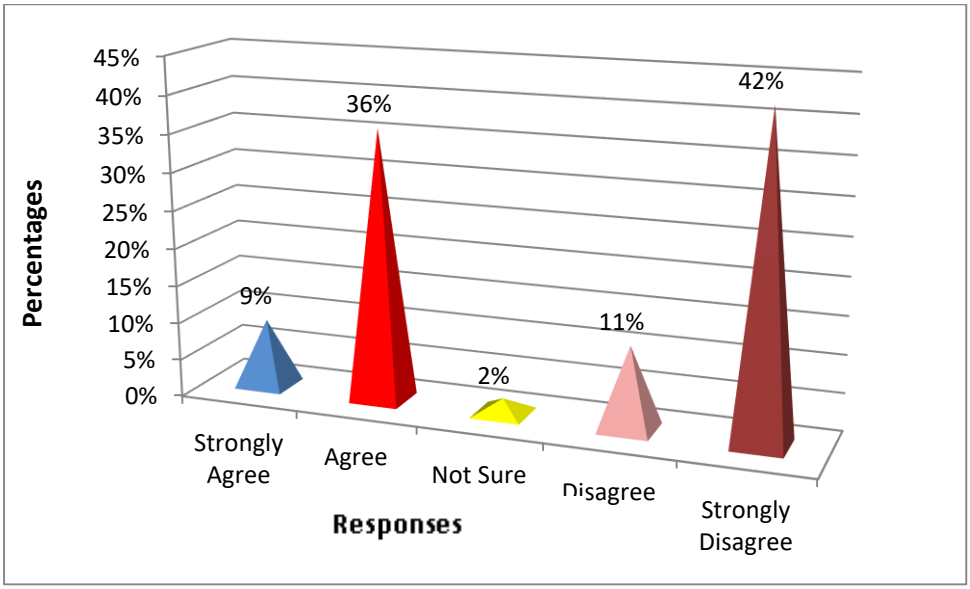

Figure 4.13 Changes in City of Harare ICT Training Programmes

Analysis

Data presented in Figure 4.8 shows that 9% of the respondents strongly agreed while 36% agreed that there has been significant changes in training programmes in response to changes in digital technology. Only 2% were not sure, 11% disagreed while 42% strongly disagreed.

Interpretation

The data presented above shows that the majority of the respondents (53%) disagreed that there has been changes in the City of Harare ICT training programmes. The results were almost 50-50 with those who were in agreement (45%). This could mean that even if there are changes in

the training programmes, there are still unchanged areas. Due to the economic situation prevailing in the country, the City of Harare might be facing challenges in conducting effective research and development. Other local authorities such as the Pretoria city council in South Africa invest heavily in research and development and they are quite competitive in the discharge of their duties (Ong, 2005:20).

4.5.5 Training Needs Analysis

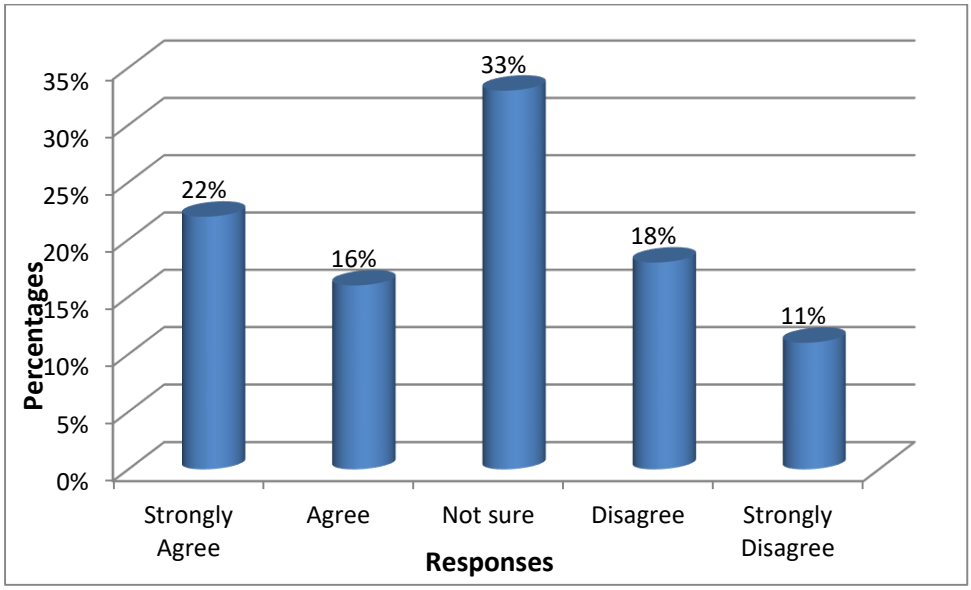

Figure 4.14 Training Needs Analysis

Analysis

The graph above shows that 22% of the respondents strongly agreed, 16% agreed, 33% were not sure, 18% disagreed while 11% strongly disagreed that the City of Harare conducts a training needs analysis to ensure the effectiveness of the training provided to employees.

Interpretation

The data presented above shows that only 38% of the respondents agreed that the City of Harare conducts training needs analysis to evaluate the effectiveness of the training provided to employees. This is a significant percentage of the respondents which shows that the City of Harare conducts a training needs analysis. This concurs with the suggestion by Phillips (1997:88) who proposes that conducting a needs analysis is the first step in developing an employee training system and it is the foundation upon which an organisation can determine

the effectiveness of its training programmes. The City of Harare focus on conducting training analysis will enable the organisation to keep abreast with technological changes as they stimulate the need to alter training programmes to align with the changes in technology.

The percentage of those who were not sure was almost equal to those who agreed. This might mean that though the City of Harare might be conducting a training needs analysis, the results may not be visible as they might not be leading to alterations in training programmes. This is against the suggestions by Statt (2000:32) who states that the changes in digital technology requires that local authorities continuously alter their training programmes since some of the skills become obsolete. From the data presented above 29% of the respondents either disagreed or strongly disagreed that the City of Harare conducts a training needs analysis. The majority of these respondents were those who have served for more than 10 years in the city council. This could mean that though the training needs analysis is done it has had minimum influence on the training programmes. The researcher is of the opinion that this could be due to lack of funding to implement modern training techniques. This is based on the fact that developing new technologies is expensive that is why most developing countries cannot afford to keep abreast with technological advances.

4.5.6 Benefits from Joint Training with other Organisations

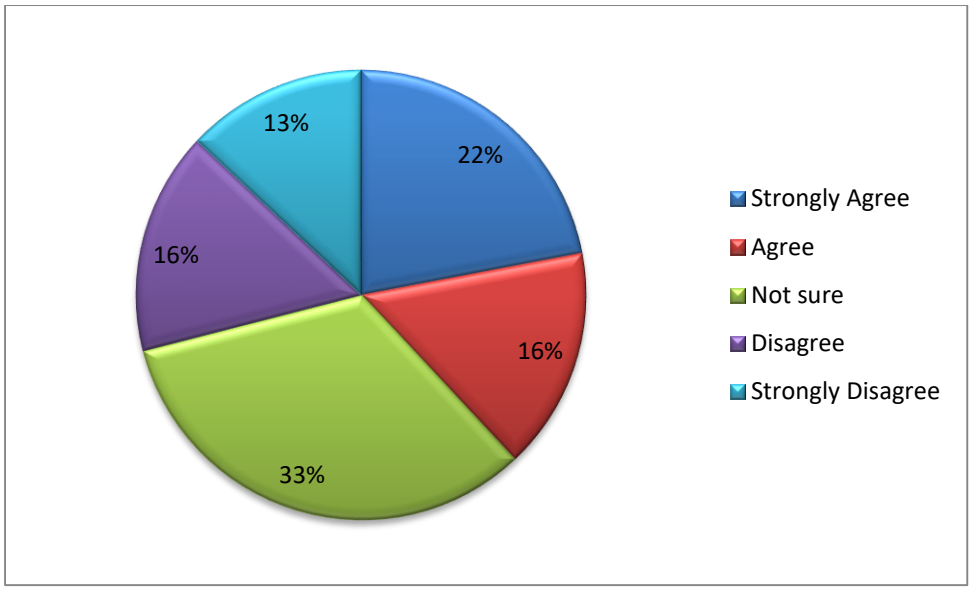

Figure 4.15 Benefits from Joint Training with other Organisations

Analysis

The pie chart reveals that 22% and 16% of the respondents either strongly agreed or agreed respectively that the City of Harare fuses the knowledge and skills acquired through combined training with other organisatons into its training programmes. Another 33% were not sure while 16% disagreed and 13% strongly disagreed with the statement.

Interpretation

The data presented above indicates that 38% agreed with the statement that the City of Harare fuses the skills and knowledge acquired by its members seconded for combined training into its training programmes. The researcher observed that most of the respondents who agreed with the statement were managerial staff. This could mean that managers, due to their status, can find a way to ensure that their views and knowledge acquired are taken into consideration. It is difficult for non-managerial staff to be heard due to the bureaucratic nature of most local authorities. The percentage of those who were not sure was the highest as compared to other responses (33%). These were mostly the junior members who have served for less than 5 years hence there is a possibility that they have not yet had the opportunity to attend various training activities hence could not contribute meaningfully to this particular subjects.

The other 29% who either disagreed or strongly disagreed were a mixture of both managerial and non-managerial staff who have served from 5 years and above. This could mean that these respondents have not seen their ideas acquired from combined training with other institutions and organisations being fused into training programmes. The reasons to this lack of utilisation are two-fold. Firstly it could be due to resistance to changes on the part of policy makers. Secondly it could be due to lack of relevance of the acquired skills. For example members could be trained on equipment that the organisation might not be having or using which makes the acquired irrelevant. The organisation may absorb the skills gained but fail to adjust training programmes due to financial constraints.

4.5.7 Changes in Training Methods

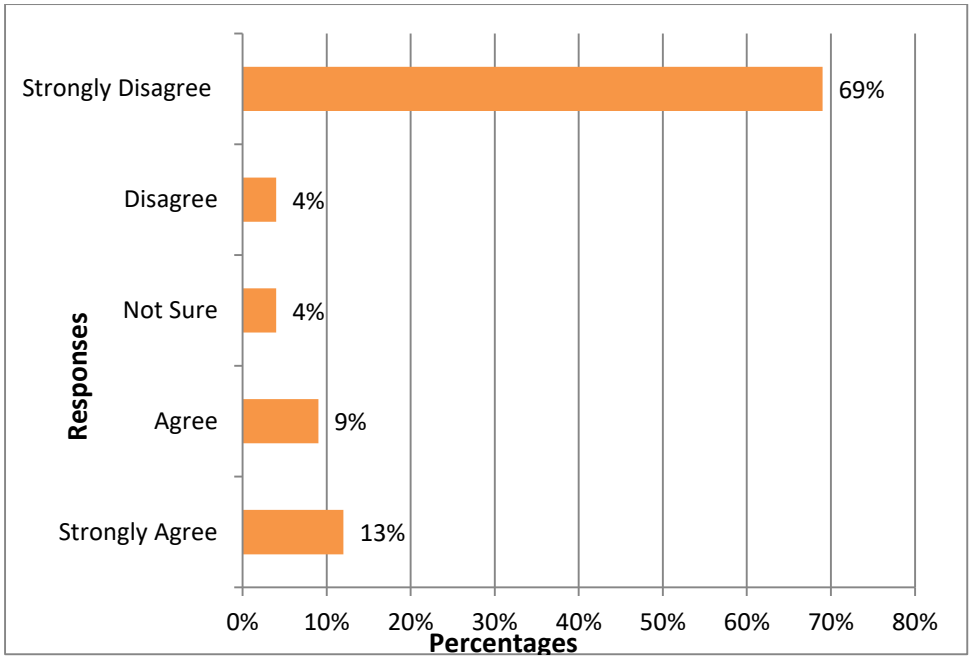

Figure 4.16 Changes in Training Methods

Analysis

The data presented on the graph shows that 13% and 9% of the respondents either strongly agreed or agreed that the City of Harare has altered its training methods to ensure that graduates are able to operate in the ever changing technological environment. Only 4% were not sure, 4% disagreed while 69% strongly disagreed.

Interpretation

According to the data presented above only 21% of the respondents agreed that the City of Harare has altered the training methods to ensure that graduates are able to operate in the ever changing fast digital environment. Though the respondents were less than half it is a clear indication that changes have taken place in the City of Harare training methods which has accomodated all key personnel in the adoption of e governance and a shift from manual systems,some interest in ICTs have improved remarkably that some changes in the training methods have taken place. Noe (2007:43) also asserts that an effective training programme should, within the confines of the existing organisational policy and environment, be designed and delivered in a way that satisfies the learning needs of its target population. It was however surprising to note that 69% of the respondents denied that the City of Harare training methods have been altered. This indicates that though there might have been changes in the training

methods, the City of Harare employees still feel that more can be done to improve the quality of training provided. This could also mean lack of satisfaction on the part of individuals which could be caused by failure to effectively operate in the current fast moving technological environment. This could be as a result of failure to effectively conduct the training needs analysis. This could therefore require that the City of Harare during its training validation also establish individual training needs.

4.5.8 Competency of Trainers in the City Council

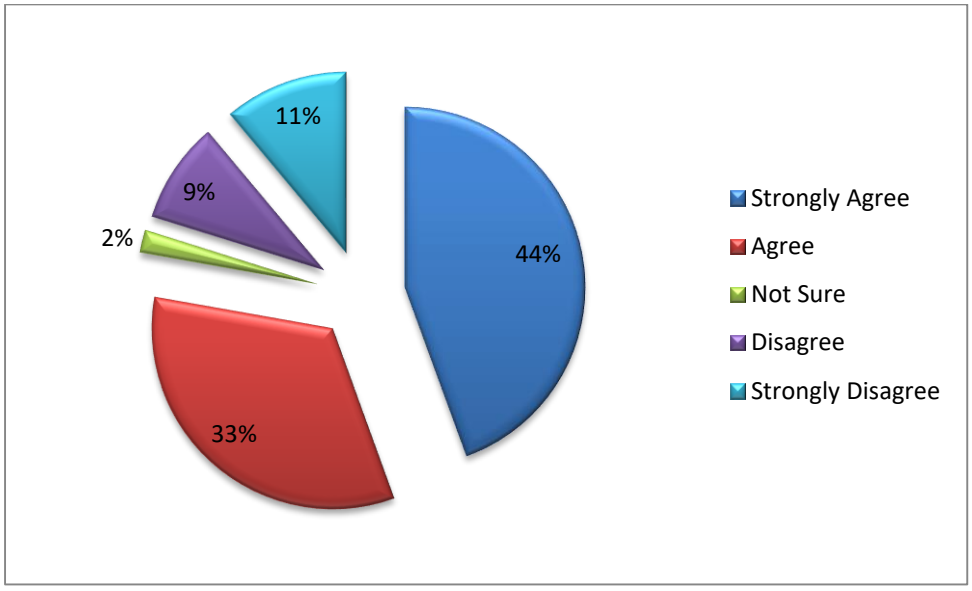

Figure 4:17 Competency of Trainers in the City Council

Analysis

The study was on competency was persuaded by the need to analyse the utility of e-governance applications models by all the key employees to enhance service delivery. The pie chart above shows that 44% of the respondents strongly agreed while 33% agreed that the trainers in the City of Harare have the requisite skills and expertise to effectively train personnel. Only 2% were not sure, 9% disagreed while 11% strongly disagreed.

Interpretation

Results of the study reveal that the majority of the respondents (77%) agree that City of Harare IT trainers have the adequate skills and expertise to effectively deliver training. Driskell (2011:33) posits that the skills of the trainers have an influence on the effectiveness of a training

programme. As such the competency of City of Harare training staff can guarantee effective delivery of training. The availability of 20% of negative responses cannot be ignored. This might be an indication that trainers may be lacking modern skills that have evolved due to changes in technology. To avoid this, the City of Harare can run continuation training programmes to keep trainers abreast with technological changes on offer.

4.5.9 Summary of Responses to the Relevance of City of Harare Training to Morden Day Digital Technology

All the 8 items in this section were again treated as a single variable, with the HPS being 40. The following categories were used to group responses to the section:

1-12 Outdated

13-26 Somehow Relevant

27- 40 Relevant

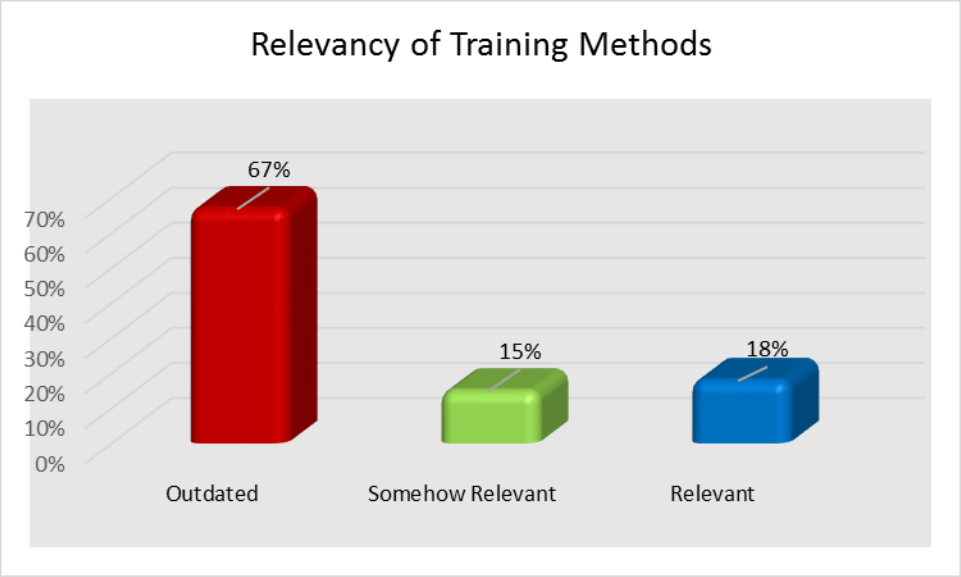

Figure 4.18 Relevance of Training Methods

Analysis

The study revealed that 67% of the respondents deemed the training methods to be outdated while 15% felt they were somehow relevant and 18% thought the training offered in the City of Harare is relevant.

Interpretation

Just like the results presented in an earlier section, results presented here should raise some concern for authorities as 67% of the employees felt that the training methods used in the City of Harare were outdated. While this could be due to lack of funding considering the economic situation prevailing in the country, it is also true that some technological reforms and upgrades in military training may not require a lot of funding (Schneider, 2016:41). The fact that the City of Harare cannot afford to modernise its training methods and equipment to meet the demands of the current technological environment might imply that the organisation cannot afford to effectively defend the country's airspace.

4.6 Summary

In this chapter the researcher presented data using simple tables, pie charts and bar charts. Data presentation, analysis and interpretation were done under the headings demographic attributes, adoption of e governance application and impact of technology on service delivery, strategies used to evaluate technology and relevance of training provided in the local authority. The next chapter presents the summary of findings, conclusions and recommendations.

CHAPTER 5
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter summarises the major findings of the study, provides conclusions and recommendations. These undertakings are guided by the research objectives that are the impact of technology on service delivery, strategies for upgrading e-governance platforms, effectiveness of ICT training and solutions to improve e-governance applications. This chapter also suggests areas for future studies.

5.1 Summary of the Study

This study set out to analyse the impact of e-governance applications in local authorities. The population for this study was made up of employees of City of Harare, citizens of Harare, private sector, business sector, civil society and government officials. The questionnaire and interviews were used to elicit data from respondents. The researcher used these instruments and set out to minimise the limitations inherent in their design and administration. Furthermore, the researcher used descriptive statistics to make sense of data which was presented in pie charts, tables and bar graphs.

5. 1.1 The Impact of Changes in Technology on Service Delivery

(i) The study found out that the majority of employees and citizens are aware of the benefits associated with technological advancement.

(ii) Due to the economic situation prevailing in Zimbabwe, there is a possibility that the City of Harare may be facing financial challenges as far as technological developments are concerned. This hinders the organisation from fully embracing technological advancement.

(iii) City of Harare employees and residents are aware that technology enhances efficiency. As such if the technology development drive is initiated employees and residents might contribute fully and no resistance might exist thus projecting positively on revenue collection and service delivery.

(iv) The study found out that advancements in ICT technology have an effect on an organisation’s spending and it is expensive but necessary to adopt new technologies.

(v) The study found out that the majority of the respondents confirmed that the City of Harare faces challenges in the acquisition of requisite ICT back up requirements.

5.1.2 Strategies to Evaluate E-Governance Platforms

(i) City of Harare personnel are aware that continuous upgrading of e-governance platforms is panacea for effectively improving on dissemination, interaction and transaction. As a result, the council strategic thrust is to keep in tandem with obtaining e-governance application changes.

(ii) There is a clear indication that there have been developments in technology as a result of continuous strategic evaluation. However, the changes are not really significant as research and development that facilitates technological advancement is affected by inadequate funding.

(iii) The majority of City of Harare employees and citizens were of the opinion that the local authority is poorly equipped to rapidly adopt new strategies necessary for e-governance applications.

(iv) Employees in the City of Harare and residents were not sure whether decentralisation of ICTs to other districts in the city contributed to technological developments.

(v) The City of Harare participates in joint training and operations with other organisations which shows that the city is aware of the need to maintain good relations with other entities so as to enable it to improve on its strategies.

5.1.3 Relevance of City of Harare Training

(i) The study found out that all the respondents strongly agreed that the nature of the training provided contributes to its ability to react to changes in ICT technology. This may be an indication that City of Harare employees value training.

(ii) The study found out that City of Harare employees are aware that training is the glue that binds together personnel and equipment hence ensuring that people and the equipment they operate are compatible. This acceptance by employees that training is critical in their capability to deliver effectively indicates they may be committed to service delivery. In that case, if relevant training is provided to them, this may yield the desired results for the organisation.

(iii) Results show that the City of Harare continuously reviews its training programmes in tandem with technological dictates. In addition, there is some evidence that there has been

changes in the training programmes although employees have areas they feel that modifications may be necessary.

(iv) The study found out that the City of Harare research and development efforts are affected by lack of funding.

(v) The study found out that the City of Harare conducts training needs analysis to evaluate the effectiveness of the training provided to employees. It has however had minimum influence on the training programmes which could be due to lack of funding to implement modern training techniques.

5.2 Conclusions

The following were the inferences drawn from the findings of the study based on the research objectives:

5.2.1 The Impact of Changes in Technology on Service Delivery

(i) The City of Harare has been affected by the country's underperforming economy hence it is not financially capable of keeping pace with technological developments thus impacting on service delivery.

(ii) There are some departments within the organisation that are not fully embracing technology in all aspects, hence the benefits of technology are not really visible.

(iii) The City of Harare faces the challenges in the procurement of spare parts for ICT equipment. This is due to the reliance on external suppliers for equipment since the organisation does not have the capacity to produce the required items.

5.2.2 Strategies to Evaluate E-Governance Platforms

(i) The study concludes that the City of Harare lacks modern equipment possessed by other countries local authorities to be able to interact and transact efficiently.

(ii) The study concludes that although members returning from courses submit reports, the bureaucratic nature of the City of Harare which is synonymous with quasi government organisations, restricts junior members from ensuring that the knowledge gained is considered in the formulation of policies.

5.2.3 Relevance of City of Harare ICT Training

(i) The study concludes that the City of Harare fuses the skills and knowledge acquired by its members seconded for joint exercises and training into its training programmes. However, junior officers do not have equal opportunities as senior officers to influence training programmes.

(ii) The study concludes that training methods used in the City of Harare somewhat outdated due to lack of funding to modernise training.

(iii) The study concludes that City of Harare trainers have the adequate skills and expertise to effectively deliver training which guarantees effective delivery of training.

5.3 Recommendations

The study makes the following recommendations:

(i) There is need for intervention from the government to ensure that technology development efforts in the city of Harare are not put to waste. This can be achieved through complementing by allowing wider e-governance use by citizens.

(ii) The government should increase awareness campaigns on the benefits of e-governance platforms to compliment the city council effort.

(iii) The City of Harare should regularly review training programmes to establish individual training needs as well as the competency of trainers. This will ensure that the training provided is relevant and satisfies both employees as well as organisational training requirements.

5.4 Areas for Further Study

The researcher recommends that further researches be undertaken to look at the impact of changes in technology in the other municipalities to validate ICT use capability and its effectiveness in improving revenue collection.

5.5 Summary

Chapter 5 presented the study summary, the conclusions and recommendations. This undertaking was done with the guide obtained from the research objectives. Recommendations for further studies are also given.

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APPENDIX A

QUESTIONNAIRE

I am LLOYD MUTSVANGWA, a student with the University of Zimbabwe conducting a study entitled **'Adoption of E-Governance Applications in Local Authorities Zimbabwe: A Case Study of the City of Harare (2010-2015)**. This is a requirement in partial fulfilment of the Master in Public Administration. The information obtained through this questionnaire will be treated in strict confidence and will only be used for academic purposes. As such no name or personal identification should appear on the questionnaire. The findings of this study will be available to UZ in soft copy if requested. Let me thank you in advance for your cooperation and assistance in this regard.

Instructions

Please answer all questions by putting a tick in the box that best applies to you. If the space provided is not adequate, write your response at the back of this questionnaire.

SECTION 1: DEMOGRAPHIC INFORMATION

Sex: Female ☐ Male ☐

Classification: Managerial ☐ Non-Managerial ☐ High Density ☐ Low Density ☐

Length of Service/Stay: 0-5years ☐ 6-10 years ☐ More than 10years ☐

No.	Statement	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
SECTION2: THE IMPACT OF CHANGES IN TECHNOLOGY ON SERVICE DELIVERY						
1.	Technology has both negative and positive impact on service delivery.					
2.	A technologically advanced institution has an advantage over a numerically superior workforce.					
3.	Embracing technology helps reduce operating costs.					
4.	Technology improves the efficiency of a workers.					
5.	Technology can help the City improve accountability					
6.	The City is financially capable to keep pace with technological development.					
7.	The current Applications allows top to bottom and vice versa flow of information through e-governance.					

No.	Statement	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
SECTION 3: STRATEGIES TO UPGRADE E-GOVERNANCE PLATFORMS						
8.	The City moves in tandem with latest technological trends.					
9.	E-platforms has improved communication with stakeholders.					
10.	The City is equipped to effectively deal with transactions of any nature.					

11.	The City has decentralised to other districts to enhance e-governance activities.					
12.	The City participates in joint operations and training with other institutions.					
13.	The City encourages use of e-governance platforms.					
14.	The City has benefitted from the knowledge acquired by personnel seconded to external courses and joint operations.					
15.	Direct changes in equipment state and training syllabus have resulted in efficient communication.					
16.	The City does not face challenges in the acquisition of spares for e-governance applications					

No.	Statement	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
SECTION 4: RELEVANCE OF CITY OF HARARE ICT TRAINING						
17.	The nature of training provided within a council is essential in reacting to changes in technology.					
18.	Training is the glue binding city resources and personnel to form an effective entity.					
19.	The City continuously reviews its training programmes to ensure that personnel is adequately equipped with relevant skills to operate in the current technological environment.					
20.	There have been significant changes in the training programmes in response to changes in technology.					
21.	The City conducts training needs analysis to ensure the effectiveness of training provided to employees.					
22.	The knowledge and skills acquired from joint training and exercises are fused into the City's training programmes.					
23.	The City has altered the training methods to ensure that graduates are able to operate in the ever technological environment.					
24.	The City training staff have the requisite skills and expertise to effectively deliver training.					

Section 5:

Q1. Briefly explain the benefits of e-governance platforms

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Q2. In your view what are the challenges hindering the effectiveness and implementation of e-governance in municipalities?

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Q3. What are the positive and negative attributes of e-governance in local authorities?

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Q4. What intervention measures do you envisage the government deploying to enhance

e-governance activities.

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.Q5. In your view has the general populace embraced use of ICTs

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Q6. What is the do you think is the key in the ICT uptake and use by consumers?

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Q7. How do you foresee local authorities ICT operations in the next 10 years?

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Q8. Are there any dynamics within local authorities that are negatively affecting the implementation of the e-governance?

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Q9. Are there any significant comparisons that can be drawn from other local authorities (regionally, continentally and globally)?

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END OF QUESTIONNAIRE

THANK YOU FOR YOUR TIME AND EFFORT AND MAY GOD BLESS YOU