

**MIDLANDS STATE UNIVERSITY**  
**FACULTY OF COMMERCE**  
**DEPARTMENT OF ACCOUNTING**



An investigation on the Effects of Source of Funding on the Provision of Water and Sewerage  
Services: A Case of City of Gweru

WRITTEN BY

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## APPROVAL FORM



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## **DEDICATION**

My dedication goes to the almighty for the life and making us see the following day. It is through your Grace Lord.

To my two sons, Takunda and Tapiwa, and my wife, Shorai Tichagwa Ezra thanks for the support, the journey was not smooth.

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## **ABSTRACT**

Provision of water and sewerage system has been a problem in many cities in most developing countries and this has resulted in many residents being exposed to water borne diseases. In Zimbabwe many Local Authorities are struggling to efficiently provide water and sewer services. There are so many factors that can be linked to the challenges faced by local authority in the provision of water and sewerage system among them being source of funding. This project sought to investigate the impact of source of funding on the provision of water and sewer services in local authorities focusing on City of Gweru. This is against the background that some locations in the City do not receive water supply timeously and that there are dotted burst sewer pipes in the City that is threatening health of the residents. The researcher used descriptive was collected through descriptive design and primary data was also collected through interviews as well as questionnaires. Population samples were drawn from management as well as Gweru Residents Association as they have relevant information patterning to service delivery as well as funding. This paper showed that poor service delivery was caused by funding, but there are also other factors that contributed to poor service such as poor management, lack technical expertise, and diverting funds for other uses also affected service delivery for water and sewer. Based on the findings the researcher recommended that a water and sewer Engineer be recruited to come up with framework in the development and maintenance of the sewer system infrastructure.

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## **CHAPTER ONE: INTRODUCTION**

### **1.0. Introduction**

This chapter looks at the purpose of the study which is to investigate the effects of source of funding on the provision of water and sewerage service in local authorities. Critical components contained in this chapter are the background of the study, statement of the problem, research objectives and research questions.

### **1.1. Background of the Study**

Machingauta (2014) finds out that there was a positive relationship in service delivery and revenue collection in so it follows that more funding increases service delivery. Castro and Heller (2012) stated that the funding of water and sewerage services come from local authorities in the form of revenues and subsidies. The provision of the service was therefore vested in the funding of the service. Limerick (2015), Giangreco (2015), Betellino (2015), Matambanadzo, Bhiri and Makunike (2013) asserted that funding increases service delivery and the more the funding the better the service. This shows that funding has a bearing on service delivery, thus the more the funding, the better the service delivery.

Bhargava (2012) argued that whilst service delivery can be improved by funding there is need to involve service receivers in the process to enhance effectiveness. Weiser et al (2015) posits that while funded projects could receive more services non funded projects would receive limited service. It follows that for service delivery to take place there is need to have funding. Frumence (2013) argues that whilst decentralization and funding can assist in the provision of

service delivery there is need to adopt bottom-up approach for it to be more effective. There is need to have participatory or engagement policy to be effective in service provision.

Wild, Chambers, King and Haris (2012) argued that despite massive injection of international and local resources public service is still falling. This shows that funding was available but there was no improvement in service delivery. Various authors have looked at service delivery in local authorities and their effects. The researcher would want to research on how source of fund is affecting provision of water and sewerage in City of Gweru.

City of Gweru has been budgeting for water and sewerage in sympathy with providing solutions to the problems that are already affecting it. There have been numerous complaints of water not reaching other areas as Mkoba village 19, Harben Park area, some parts of Senga and there are reported burst sewerage pipes in City wide which include Mambo, Mtapu, Senga, Mkoba and Athlone and this was reported in the Sunday News (31.01.16). Faced with those numerous challenges the council is revising its budget towards water upwards year on year. The table below shows City of Gweru budget towards water and sewerage from 2013 up to 2016.

Table 1.1 City of Gweru budgeted and actual expenditure towards water and sewerage.

	Year			
Description	2013	2014	2015	2016
<b>Budgeted</b>				
Income	9,018,226.00	11,569,581.00	16,880,301.00	18,823,292.00
Expenditure	7,483,961.00	6,068,682.00	9,109,356.00	15,869,567.00
<b>Actual</b>				
Income	10,684,392.00	11,233,619.00	12,573,530.00	
Expenditure	3,836,970.00	5,374,578.00	1,488,963.00	
Inc Variance (%)	(0.18)	0.03	0.26	1.00
Exp Variance (%)	0.49	0.11	0.84	1.00
ActualBdgt Surplus( Deficit)	6,847,422.00	5,859,041.00	11,084,567.00	-

**Source:** *City of Gweru Financial Statements*

Statistics obtained from City of Gweru showed that the budgeted figures for water and sewerage have been rising steadily from 2013 up to 2016. The budgeted figures towards water and sewerage have been increasing yearly from 2013 the budget went up by 22% in 2014 and in 2015 the budget went up by 78% and in 2016 it was phenomenal it hit a high of 100%. This shows that City of Gweru intends to solve water and sewerage problems as indicated by the figures in the budget. On the other hand, the actual expenditure that is spent on the provision of water and sewerage services is lower compared to the budgeted figure. In 2013 actual expenditure was 42% less than the budgeted figure indicating a lower figure compared to the 7 million that had been budgeted. In 2014 the actual budget towards provision of water and sewerage improved to 83% which was a good indicator in the provision of water and sewerage. In 2015 the actual figure spent on water and sewerage services was 15% compared to the budgeted figure. There is no consistence in the expenditure towards the service. There is also a positive surplus which indicates the fund is performing well as shown that in 2013 it was 4 million, in 2014 it was on 700,000.00 and in 2015 it was on 8 million. The service delivery is expected to improve given this position.

Previous authors like Mangizvo (2013) looked at environmental management in Gweru, Dewa, Musara and Mupfurira (2013) looked at industrial decline in Gweru and Chakaipa (2010) looked at general service delivery in local authorities. The researcher would like to investigate whether source of funding is affecting water and sewerage service delivery in City of Gweru. According to City of Gweru report on disease surveillance, thousands of people have been victims of water borne diseases and these diseases are caused by poor water and sewerage delivery services. The provision of water and sewerage services is raising more dust and there is need to investigate the provision of such services by City of Gweru. This is reflected by statistics of people that have been hospitalized mainly due to substandard provision of water and sewerage services. Table 1.2 relates to the figures of people who have been affected by water borne diseases in two groups, those under five years and those above five years.

Table 1.2 Statistics showing water borne diseases in Gweru.

	Year			
Discription	2013	2014	2015	2016
<b>Water related</b>				
Under 5 years	5,734.00	4,440.00	3,144.00	2,887.00
Above 5 years	1,730.00	1,411.00	1,045.00	968.00
<b>Subtotal</b>	<b>7,464.00</b>	<b>5,851.00</b>	<b>4,189.00</b>	<b>3,855.00</b>
<b>Dysentery</b>				
Under 5 years	135.00	51.00	33.00	32.00
Above 5 years	154.00	65.00	32.00	42.00
<b>Subtotal</b>	<b>289.00</b>	<b>116.00</b>	<b>65.00</b>	<b>74.00</b>
<b>Grand total</b>	<b>7,753.00</b>	<b>5,967.00</b>	<b>4,254.00</b>	<b>3,929.00</b>

**Source:** Disease Surveillance Report, City of Gweru.

Reports released by City of Gweru health department revealed that in 2013 there were 7,000 cases of water borne diseases officially reported. This could be associated with low standards in the provision of water and sewerage services. In 2014 the cases dropped by 29% to 5000 and even the figures seem to be coming down the figures are still scary as children under the age of five years still remain victims. In 2015 the figure further dropped by 43% and finally in 2016 it went down by a high of 53% of the reported cases. The rate at which number of victims affected by water borne diseases are slowly reducing which could be attributed to slight improvement in the delivery of water and sewerage services. Data reveal that cases of water borne diseases are going down in Gweru. The researcher intends to evaluate the impact of source of funding on delivery of water and sewer services to Gweru residents.

## **1.2. Statement of the Problem**

City of Gweru is facing challenges in water and sewer service delivery despite year on year budgets that are presented with the expectation of solving the water and sewerage service delivery problem. Notwithstanding having a seemingly reliable source of funding towards the provision of water and sewerage, through sale of water, the problem still persists. This study seeks to investigate if source of funding is affecting the provision of water and sewer services to City of Gweru residents.

## **1.3 Main Research Question**

What is the impact of source of funding on the provision of water and sewer services in City of Gweru?

## **1.4 Research Objectives**

- To determine the impact of source of funds on the provision of water and sewer services by city of Gweru.
- To identify challenges faced by City of Gweru in improving water and sewer services given their already existing water and sewerage sources of funds.

- To establish other sources of funding towards provision of water and sewer services in City of Gweru.
- To suggest strategies on how to improve water and sewer services in the City of Gweru.

### **1.5 Research Questions**

- What is the impact of water and sewer source of funds on the provision of water and sewer services in City of Gweru?
- What are the challenges faced by City of Gweru in the provision of water and sewer services?
- What are the other sources of funding to improve water and sewer services in City of Gweru?
- What strategies can be employed by City of Gweru to improve the provision of water and sewer services?

### **1.6 Delimitations**

This research is going to be focused on the impact of source of funds on the provision of water and sewer services by City of Gweru from the year 2013 up to 2016. The research will only be focused on City of Gweru which is located in the heart of Zimbabwe and concentrate on the provision of water and sewer services. The population under study comprise of City of Gweru management and residents.

### **1.7 Significance of the Study**

This study will help local government to improve on the provision of basic services such water and sewer provision and also the management to identify gaps in the provision of these services which will effectively assist local authorities. Recommendations in this study will also assist local authorities improve on the provision of water and sewerage services. The

research will also be used as literature by other researchers and can be used as point of reference. The research will be used to fulfil requirement of a degree programme by the university. The research will assist the student in acquiring knowledge on how local authorities can best utilize sources of funds on the provision of water and sewer. The study will assist the researcher in acquiring skills that can be used carrying out future researches.

### **1.8 Limitations**

Accessing information for the purposes of this research could be difficult as its publication could affect the image of the organization the researcher would resort to management reports and minutes as they are equally useful as sources of information. The research will be conducted on sample basis and therefore the results are not conclusive but are rather persuasive. To overcome this problem a large sample will be used to gather data. The author will use a very large sample and collection of data will be bit difficult. To overcome this problem, the researcher will use research assistants collect and analyse data.

### **1.9 Assumptions**

That there will be a stable environment that will not distort the result of the research and therefore the results will be relevant.

### **1.10 Definition of terms**

- Fund is a certain amount of money that has been earmarked in the provision of a particular service such as water, sewerage, housing or education provision and defined by the Urban Council Act.
- Donation is gift that is given by a legal entity towards provision of water and sewer services as defined by Limerick (2015).
- Service delivery is the interaction of clients and the suppliers of basic services like

water so as to satisfy the users as defined by Urban Councils Act.

- Budgeting is establishing what the organization will get in the form of income against a planned expenditure as defined by Financial Regulations.

### **1.11 Chapter Summary**

This chapter is an introduction of the research comprises of the background, statement of the problem and objectives of the study. Research questions, significance of the study, limitations and delimitations were discussed as well as definition of terms. Chapter two will look at literature review.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

The chapter incorporates the documentation of a comprehensive review of published and unpublished work from primary and secondary sources of data in the areas of specific interest to the research. The major purpose of conducting a review is to sample current opinions in textbooks and professional journals thereby gaining insights into the aspects of the research questions and objectives to spell out the impact of source of funds on the provision of water and sewerage system. The chapter's outline is guided by research objectives that are definition service delivery, challenges faced in the provision of service, other sources of funds that can be accessed in the provision of service, strategies than can employed to provide quality service, and summary of the chapter.

#### **2.2 Impact of source of funds on service delivery.**

##### **2.2.1 Establishing a strong source of funding**

Zhou and Chilunjika (2013) clearly spelt out that there is need to have a secure and buoyant revenue base if local authorities are to effectively execute their functions. They go on to say that, Revenue is a term that denotes all income from taxes, fees (charges), fines, loans which local authorities mobilize within and outside their own jurisdictional arenas. The emphasis that local authorities need their own funding so as reduce dominance by central government as it was also emphasized by Oluwu (2012) when he said local authorities should not rely on local government funds and if they do so will be reduced to mere "talking" shops and will not be able to implement their decisions. Kiwekete (2013) suggest that for local authorities to

have autonomy there need to monitor their expenditure and the income that they receive which are supposed to be in close proximity. This is achieved through decentralization of local government. Frumence et al (2014) discovered that delays by central government to release funds would affect service delivery and the intended objectives will not be achieved. Otieno (2014) finds out that the introduction of Local Authority Transfer Fund was done to improve service delivery in local authorities by the central government. Purohit (2016) cited that the funding of urban infrastructure is not only huge but it is also growing and there is need to engage private sector, set national board to facilitate infrastructure development and improve service delivery.

Fuo(2016) argued that the issues of water and sewerage service delivery are supposed to be built in the national strategic plan and are supposed to be driven by the constitution to improve the lives for the poor people in the society. Peck et al (2013) argued that taxes and public borrowing should not be used to fund infrastructure (water and sewer services) rather cities should turn to national and international private capital for urban development and infrastructure investment. Mutua (2016) noted that bulky of local government funding come from tax payers to provide service delivery there is there need for local authorities to be accountable to the tax payers. King (2014) noted that accountability is a new topic that is at the centre of public service delivery in public entities. Abbas (2016) argued that service delivery in public institution can not only be improved by funding but rather there is a question of accountability to the public that can improve on service delivery. Hutton (2015) indicated that besides provision of water and sewerage there also need to consider the affordability on the side of consumers. That is do consumers have enough funding to pay for the services which he said for water and sanitation it ranges from 2% to 6% of the income received by individual household.

### **2.2.2 Bank Loans**

Trujillo, Hong and Whitley (2015) noted that both public and private companies developing water supply and domestic solid waste facilities have priority access to concessional loans and guarantees from the Viet Nam Development Bank. Llanto (2015) noted that Local water authorities have access to loans and technical assistance from international organisations, and also loans from government financial institutions (GFIs) and the Municipal Development Fund Office (MDFO). Schiffer (2015) noted that government received most of their financing from European Investment Bank and the French Development Agency for the financing of water and sewerage services. Bond, Platz and Magnusson (2012) noted that inadequate fiscal transfer, little own source of funding and low credit worthiness makes it difficult for local governments to fully fund water and sewer projects. Local banks can be used to finance these projects and donors can play a catalytic role in implementing these water and sewer projects. Sparkman and Sturzenegger (2015) suggested that there is need for local authorities to engage banks and create a healthy enabling environment, the public sector and other actors looking to facilitate water and sewer market growth could take any number of the directions to better enable private sector involvement.

Manzungu et al (2016) viewed the coming aboard of banks in capital injection should viewed as a compliment to the provision of water and sanitary services. They should not be viewed like multinationals but rather seen as a viable complementary system. Willets (2016) argued that the provision of water and sewerage services in local authority was greatly affected by high interest rates that were charged by the banks. Nafziger and Koo (2015) argued that funding gap between available and necessary funds has been increasing and expected to increase in the future. With government unable to provide adequate funding, water utility owners should consider alternative funding sources such as banks through private

partnerships and investment. Ahmad, Bhattacharya, Vinella, and Xiao (2014) disputed that, rather than relying on bank loans, these local authorities should issue long-term well-rated bonds to raise money for water and sewer services. Turley and Sempele (2013) argued that while private public partnerships (PPPs) can be viewed as key to local authorities accessing bank loans and can assist in the provision of water and sewer service delivery system they are not the panacea as they are also compensated from the public purse. Mairos (2013) argued that there is need not only to rely on public funding but to look at state owned banks as another viable option in the provision of water and sewer through loans they can provide. Arezki et al (2016) argued that while there are opportunities in engaging banks, there were also important bottlenecks noticed on funding and origination of water and sewer projects.

### **2.2.3 Donations**

Dangal (2012) observed that donor organizations play a pivotal role in the provision of water and sewer services through providing technical, educational and financial support systems. He also noted that they were going a long way in the attainment of Millennium Development Goals which are not set at local level alone but rather globally. Hawkins, Blackett and Heymans (2013) stated that water and sanitation program is a multi-donor partnership created in 1978 and administered by the World Bank to assist people in obtaining affordable, safe and sustainable access to water and sewerage services. Makwara and Tavuyanago (2012) cited that most water and sewer infrastructure improvements have been provided for by the central government and donor funding. Blyther (2012) noted that clean water and sewer services delivery system are implemented by a variety of actors and some funders are donors, governmental organizations, governmental groups, private business and foundations. He also noted that there has been failure in the system in terms of provision for water and sewer services and there is greater need to have donor community to fund the services. Gutman, Sy

and Chattopadhyay (2015) stated that government funding gap in the provision of water and sewer has been quickly covered by donors so as to provide efficient services to the citizens.

Buthe (2013) argued that in as much as donors would want to provide and assist local authorities their contribution are not very significant in as much as local authorities would want. Zivanai et al (2012) argued that in as much as external sources of funds can be acceptable in the provision of water and sewer, external revenue sources force recipients to do what the donor wants, in place of priorities set up by Local Authorities. However, so many authors do not seem to agree on one common cause of poor provision of water and sewer. Some are pointing at funding while others are of the opinion that there is poor management and rampant corruption in local authorities which is hampering provision of these services. Mairos (2013) is of the opinion that state owned banks can play a critical role in the provision of both finance and provision of technical assistance in the provision of water and sewer services.

### **2.3. Challenges faced in the provision of water and sewerage.**

#### **2.3.1 Political**

Speight (2015) cited the key factors in the provision of water and sewer are a clear vision, the political will and power to carry out the vision, and an investment on a massive level. An outreach program has been developed in recent years to more fully engage residents and businesses in valuing and managing water and sanitation resources. Lambright (2014) finds that partisan politics undermines water and sewer service delivery in any given country in several ways, including through financing, tax policy, and even direct interference in policies and decisions made by City council. Cohen (2015) argued that a fully open market would achieve even greater efficiencies, but the existing infrastructure and political considerations

make that unlikely in the near future. The integrity of government contracting procedures will also improve, because competitive bidding can serve as an essential safeguard against the influence of politically preferred providers of local authority services. Cashman (2014) indicated that the challenge is to find appropriate political and regulatory oversight and the autonomy of water and sewer managers and service providers. Saraiva, Schmidt and Pato (2014) argues that water and sewer should be seen as constitutive of the political realm, instead of just considering its management and infrastructure as a reflex of political context. Jones, Cummings and Nixon (2014) stated that governance and political economy factors play an important role in constraining and enabling funding of water and sewer delivery service delivery. Boex et al (2013), Jones et al (2014) stated that the effects of factors affecting the delivery of water and sewer can be shaped by physical and political economic characteristics of the urban environment, as well as broader political context and sector specific qualities. Gelting et al (2013) argued that despite the influx of international technical assistance from multi-lateral lending agencies some cities' efforts to improve water and sewer face other challenges in the political climate. Arkhtari, Moreira and Trucco (2015) argued that the party identity of the politician does not elect the size of City government, the allocation of public spending or the crime rates. That is the funding of daily operations on the provision of water and sewer services is less like to be influenced by political cycles and alliances.

### **2.3.2 Population boom**

Kahariri (2014) cited that the provision of water and sewerage services is greatly affected by population boom in urban areas besides the issues of funding in their provision. Asoka, Thou and Bunyasi (2013) noted that the exponential growth in population and the escalating developments have put insurmountable strain on basic infrastructure in the neighborhood in terms of water and sewer provision. Mapfumo and Madesha (2014) found out that population

growth, poor infrastructure, economic challenges and climate change are the major challenges affecting efficient water delivery in cities. Fan (2015) Urbanization is a global phenomenon and one of the world's most challenging issues, the global urban population is estimated to be increasing by over a million people a week, creating enormous challenges for the delivery of infrastructure and basic services such as housing, electricity, water, and sewer. Muzondi (2014) noted that the proliferation of informal settlements has posed great challenge in the budgets of local authorities as more funds will be needed to provide for water and sewerage services.

Whitler and Warner (2014) posits as the population becomes more urbanized, the social, economic, and environmental vitality of our growing cities are wholly dependent upon the planning and management of water and sewer. Muturi (2012) cited that in the face of rapid population growth, escalating poverty and inadequate institutional capacity, the cities and towns of the developing world are unable to provide the necessary infrastructure, housing and employment opportunities water and sewer.

Nganyanyuka et al (2014) argued that the access to urban water and services is caused by many factors other than funding thus corruption, regular electricity breaks down, weak accountability and political capture of water policies projects. Sigel (2012) argued that most challenges faced in the service delivery do not point at funding but rather on policy implementation and that there is no political will and corruption which hinder rolling of legislation which otherwise sound. Oberg et al (2014) explained that it appears that the notion for sewage as a waste should be removed from the mind set of people as there is a lot that can

tapped from sewer. He added that it can be observed as a resource as it can be used as source of power and can be recycled for agricultural purposes especially irrigation agriculture.

### **2.3.3 Technical efficiency**

Boscheck (2013) noted that most organizations utilise a combination of water and sewer frameworks to deal with issues of operational efficiency and asset management, water pricing and funding, as well as broader stakeholder and regulatory concerns. Hawkins, Blackett and Heymans (2013) noted that if frameworks in the provision of water and sewer are effectively implemented these frameworks depends on the political drivers for policymaking, resource allocation, and operational decision making; and technical focus of the frameworks may lead to these factors being overlooked. Dumontier et al (2016) noted that partnerships in the provision of water and sewer services generally prioritize technical and funding efficiencies as key in the provision of water and sewer services in local authorities.

Hawkins, Blackett and Heymans (2013) argued that enabling legal, political, or institutional conditions are important factors in making service delivery work, but some technical challenges remain. Bhattacharya, Romani and Stern (2012), urged for the creation of a new development bank, specifically dedicated to promote water and sewer infrastructure and sustainable development as well as to deliver the technical assistance capacity in the selection, management, and funding of infrastructure projects, which is particularly needed in developing countries.

### **2.3.4 Poor cost recovery**

Makwara and Tavuyanago (2012) noted that, municipalities in Zimbabwe Gweru, included lack the autonomy in setting tariffs in the provision of water and sewer services. This impact on their ability to ensure a full cost recovery of the services they offer. Urban councils also lack autonomy in setting realistic tariffs, which would help them recover costs and ensure

that they continue to operate effectively. Murinda (2012) Return on water describes the real cost of production and the revenue which should be earned from its sale. This should be considered in the provision of water. In the City of Bulawayo in Zimbabwe, reclaimed water is always sold at a below cost price but accounts for a very small proportion (between 2-4%) of the whole. Mabika (2015) asserts that cost recovery user charge have the potential of enhancing resource allocation by reducing wasteful usage since users pay for their own resources. But local authorities have weakness in their capacity to collect. Hence liquidity crisis and poor service delivery as result. Choshi (2012) noted that it requires water services and sewer service providers to put significant efforts into cost recovery for sustainable provision of water services.

Wangui (2012) propounded the authorities attribute the loss to poor management of water resources such as failure to repair broken pipes and leakage of water pipes. The loss is despite government's annual financial allocations to aid the smooth operations of water parastatals. Chetty and Luiz (2014) argued that water and sewer provision is greatly affected by issues of poor governance and a lack of capacity in terms of technical and management skills that will constrain infrastructure development. Chukwu (2015) argued that the challenges facing sustainable water and sewer service management in the cities' wetland include lack of effective compliance to policies, fragmented responsibility, and poor state of infrastructure, corruption, and low rate of costs recovery.

## **2.4. Other sources of funding.**

### **2.4.1 Community Funding**

Copeland et al (2016) noted that government should fund small community based projects so as to alleviate problems of water and sewer challenges that they face. Duflo (2012) is of the

opinion that water and sewerage services require a substantial amount of money which in most cases is not available. There is therefore need to come up with small manageable investments at individual or community level. Tremolet (2012) is of the mind that individuals and communities that invest in water and sewerage services should be incentivized on the systems that they will have provided for. Chou, Hammer and Levine (2014) noted that state provided a revolving fund for communities to benefit them from provision of water and sewer service provision.

However, Cohen (2012) argued that the use of revolving funds in communities was not good enough as the funds could not keep pace with the deteriorating water and sewer infrastructure. Schlechter, Coleman and Anyway (2012) argued that revolving funds can be key in the provision of water and sewer services but local authorities can have limited funds to initiate them. Makwara and Tavuyanago (2012) noted that the provision of water and sewer is a national crisis it therefore requires state intervention in the provision of water and sewer services.

#### **2.4.2 Central government funding**

Onyenechere (2012) stated that in as much as government would want to provide funding for water and sanitation services there is need to include private sector and community based organizations so as to come up with well managed water provisions. Makwara and Tavuyanago (2012) stated that local authorities rely on central government for the laying of new pipes for water and sewer system but the challenge is that central government lack money and there is rampant corruption. Kiwekete (2013) noted that local authorities should

get investments from central government, capital markets, municipal stock which is a critical resource to fund water and sewer services.

Otieno, Odundo and Rambo (2014) argued that whilst the central government provides funding for water and sewer services it was key to adopt the participatory approach as this was key in the provision of these services. Quinn et al (2014) argued that councilors who are voted for by the residents to decide on the policy formulation cannot be fully entrusted in handling of water and sewer service provision because they might lack accountability even though they are democratically elected. These authors do not seem to agree that central government funding has been causing challenges in the provision of water and sewer. But Muturi (2012) noted that water and sewer provision has been receiving less funding from central government to countries in the sub-Saharan to as low as 6% which makes very unsustainable. The researcher will want to investigate if water and sewer funding is also affected by these central government disbursements.

### **2.4.3 International Funding**

Satterthwaite (2013) is of the mind that service provision such as water and sewerage services should be provided for by the United Nations if MDGs are to be achieved. Blyther (2012) noted that the United States had invested 953 million dollars in water and sanitation programs worldwide including 898 million provided by the United States Agency for International Development (USAID) and MC. Ruiters (2013) noted that yet government is seen as a major player in the provision of water infrastructure there is need to bring aboard other players to partner with in the provision of such services. This is so because funding is always a limiting factor in the provision of such services. Boex (2014) said that there is need for local authorities to come up with funding modalities in the provision of water and sanitation as

their provision is not local goal but rather a global development goal. Traub (2015) noted that capital markets are supposed to be skewed towards provision of water and sanitation services but these developments can only occur if there is corporate leadership and motivation. Bradley (2013) whilst human rights groups are fighting for priority in the provision of high quality water and sewerage services there was also need to compare the cost benefit analysis that is driven in their provision. He wants to concentrate on the economic benefits that can accrue in their provision besides the common sources funds which are grants, ratepayers and donations,

Siriginidi (2014) argued that local authorities should not depend on common sources rather they should think outside the box and look at other sources like revolving fund, projects initiatives, trust funds, twinning of cities and healthy loans among others. This largely depends on managerial capacity and proficiency as well as statutory legal framework. Sutherland (2012) argued that funding which is dependent on economic performance was greatly affecting service provision of water and sewerage. Gbedemah (2012) noted that whilst there was an improvement in funds for water provision there was no improvement in the quality of water supplied. Mclouchlim and Bartley (2014) argued that service delivery is greatly affected by politics and that it is not only funding that affect delivery of water and sewer services in local authorities.

## **2.5 Strategies to improve water and sewerage services**

### **2.5.1 Cost recovery strategy**

Sutherland and Lewis (2012) noted that provision of water and sewer services, are not adequate to meet service demands and hence local governments have to make up for the shortfall using a cost recovery approach. Fiasorgbor (2013) inadequate water supply and sanitation services contributed to over 70% of diseases and provision of adequate water and

sewer will significantly improve financial resources in cost reduction for health care and productivity. Fielmua (2012) the provision of water and sewerage services is solely done by the central government. Due to lack of funding the government has involved private sector and non-governmental organizations. The involvement of community organizations also proved to be key in the provision of water and sewer services. Duflo (2012) argued that building centralized water and sanitation infrastructure is costly, further complicated by the complementary nature of water and sanitation provision, management should therefore be innovative to come up with more viable contracts, (contracts that are cost effective). Otti (2012) cited that government, NGOs and private sector collaboration in water and sewer provision as lack of funding was affecting their implementation. Banana (2015) cited that funding was a critical component in the provision of water and sewerage and therefore there was need to form partnerships and solve the problems of water and sanitation. Thomas (2015) said Tanzania failed to attain MDGs of 62% improved sanitation not because of lack of funding the chief cause was rapid population growth in the cities. He recommended that a participatory approach was needed by all stakeholders who include government, NGOs, donors and multilateral organization.

### **2.5.2Twinning of cities**

Platforma (2013) stated that traditionally, the partnerships were called “twinning”; today they are also called municipal international cooperation, local government development cooperation, decentralised or subnational cooperation. Zivanai et al (2013) noted that local authorities should be involved in twinning arrangements with other municipalities in developed countries and participate in Municipality International Corporation (MIC) activities so that it can undertake joint projects and get technical assistance from well-wishers in the provision of water and sewer services. Oates et al (2014) suggests that knowledge

sharing and twinning between utilities can help formulate more strategic responses, while adopting integrated urban water and sewer management can help utilities better consider the interactions between water resources, infrastructure, operations and planning. Furlong (2015) cited that local authorities have also taken an interest in 'international' water markets was shown in the 1980s they embarked on twinning arrangements to share expertise with struggling local authorities in the provision of water and sewer services. Beermann, Damodaran, Jorgensen and Schreurs (2016) propounded that cities have established partnerships with other cities from all over the world that go beyond the traditional twinning focusing on provision of water and sewer services. Bregeon, Kasland, Kverdaraitė and Madslie (2015) argued that service provision in local authorities is not hampered by funding alone, but rather the availability of experts in the provision of water and sewer services; thus, they might not have all the resources and competence needed to accomplish their tasks.

### **2.5.3 Ratepayers to pay their bills in Time**

Garaiza (2014) noted that local authorities should have good relations with ratepayers and also exercise good governance which in return will encourage ratepayers to come forward and settle their bills. Machingauta (2014) noted that there was a positive relationship between timely payment of bills and service delivery. There is therefore need to educate citizens to pay their bills early so that the City of Gweru will deliver service as the accounts will be funded. Gambe (2012) noted that the reason why most residents do not have piped water to their houses is that they do not want to settle their bills in time. Zivanai (2014) also noted that water and sewer provision in Cities can be improved if local authorities manage to bill rate payers in time and collect the revenue in time. Mavhungu (2012) noted that the only positive move that can be created by Local Authorities is making sure that bills are in time and send for timely revenue collection so as to improve service delivery.

Gambe (2013) argued that despite residents paying their bills in time the money was diverted towards payment of wages and salaries this would leave the residents receiving poor service in water and sewer. Garaiza (2014) argued that it not only billing ratepayer in tin that can assist Local Authorities in time but also upholding good corporate governance as well as curbing corruption. Burtraw, Mclaughlin and Szambelan (2012) argued that billing alone does not improve service and collection of revenue but rather coming up with rates that are ideal to different users. Ranga (2016) noted that politics was a hindrance in the provision of water and sewerage and therefore billing of ratepayers cannot be affecting revenue collection in Local Authorities alone. Bagui, L. and Bytheway, A. (2013) noted that there is need to improve rate payers' interaction through e-participation will give them desire to pay and the Local Authority will improve on revenue collection.

#### **2.5.4 Value for Money Service Delivery**

Zivanai et al (2014) concluded that ratepayers are willing to pay for any service provided the service is good and therefore it is up to the local authority to see to it that there is a quality service in the provision of water and sewer. Makanyeza, Kwandayi and Ikobe (2013) noted among other things that provision of value for money services as one of the key strategies in the provision of water and sewer services in local authorities. King (2012) noted that the provision of quality services calls for acquiring political support, taking a longer-term strategic view despite short-term challenges, aligning services to corporate objectives, particularly around health and adult social care, innovative leadership and a pro-active staff working towards community benefit, and achieving a zero deficit budgetary strategy over the short to mid-term.

Boex and Edwards (2014) argued that even though there is dedicated fund to a specific service the pressure on the service provider to ensure value for money disappear. Parker (2012) argued that the provision of quality service has been associated with the private sector and not the public sector this view should be changed as some public sector have since improved their quality of services. Maphunye (2014) noted that besides weak financial position by Local Authorities to provide quality services their position was also compounded by corruption, greed and culture of self-enrichment among the officials.

## **2.6 Summary**

This chapter was aimed at analysis of all relevant literature concerning the impact of funding on the provision of water and sewer services. This chapter deeply looked at the possible causes of poor service delivery and possible strategies that can be implemented to improve on the provision of water and sewer. Chapter three will look at the methodology used in the collection of data.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.0 Introduction

This chapter explains the methods used in obtaining the data from various sources, the rational for using the methods, the advantages and disadvantages of the research instruments used and how this data was analysed to compile this research. It is mainly concerned with issues such as data collection methods, research design, sample size and sampling techniques, research tools, reliability of instruments, validity, data presentation and analysis. Methodology will make sure that findings are relevant, conclusions valid and recommendations made appropriate.

#### 3.1 Research Design

Research design refers to a conceptual structure within which research will be done. Research design is a plan for the collection of data. Research design emphasizes on the logic of the research that is what evidence is required to address the question under research adequately, Wyk (2012). The main objective of this research is to investigate the effects of source of funding in water and sewer service delivery in local authorities which trigger the need for qualitative research design. Roller and Lavrakas (2015) suggested that qualitative research design thrives to collect information any group with useful knowledge for the subject under study from which new knowledge can be gained. The researcher will use qualitative research method to collect data and analyze it so as to gain more understanding of the problem faced by local authority in the provision of water and sewer services. This was attained through gathering of information patterning to targeted population on a particular subject and analyzing information to see the effects on the provision of water and sewer services.

### **3.1.1 Qualitative Approach**

Qualitative research is the approach to data collection, data analysis and eventually report writing Williams (2011). Qualitative research includes the use of interviews, observations among others and eventually an analysis. Bhattacharjee (2012) noted that even though the researcher may have structured questions intended to collect data the researcher should also come up with some open ended questions to collect qualitative data and these questions may generate some unexpected insights not otherwise available from the structured questions. Qualitative approach is used in this research because the researcher is of the mind that residents should express the quality of service that they are receiving at the present moment and to be considered by the views that will have been expressed by management. Williams (2014) alluded that feelings, behaviour and judgements perceptions are hard to present in numbers and therefore require wording, hence the use of qualitative research. Qualitative method was used to collect data on the effect of source of funding on the provision of water and sewer services in City of Gweru. Questionnaires and interviews were used in the collection of data.

### **3.2 Target Population**

Bernard, Whitley and Kite (2013) define population target as the number of objects that has been selected out of the targeted population under study. Barnerjee and Chaudhury (2013) defined target population as any inferences from sample from which defined population has been selected. Whitley and Kite (2012) averred that population is a group of people to whom we want to extract results of our research study. Target population can be referred to as a group of people or objects from which we want our research results to apply to the study population. Population is all those entities (person, organization, things, events e.t.c) that are the focus of interest of the research or evaluation study Wallace and Fleet (2012). The

targeted population comprised of the GCC Senior management, middle management, Stakeholders of City of Gweru that is Gweru Residents and Ratepayers Association (GRRA).

### 3.3 Sample

The method to be used in gathering data for research is such that it gathers information from the cross section of the population. This was supported by Bernard, Whitely and Kite (2013) who said research sample will provide reasonable cross section of the study population in terms of personal characteristics such as gender, race, age and so forth that are important to the research. A sample can be referred to as total quantity of the things or cases which are the subject of our study Farrokhi (2012). The safest procedure of sampling is to use as large a sample as possible. The researcher made use of samples in view of costs and saving of time. The researcher used a large sample, large enough to collect information on the topic, so as to obtain more representative information about the study. The researcher made use of three clusters that is, senior management 1, middle management 2, and Gweru Residents and Ratepayers Association 5. The population will be constituted as shown in table 3.1 below;

**Table 3.1: Population and Sample size**

<b>Participants</b>	<b>Population</b>	<b>Sample</b>	<b>Interviews</b>	<b>Percentage</b>
Senior Management	1	1	1	100%
Middle Management	2	1	0	100%
Gweru Residents Association members	5	3	1	60%
TOTAL	8	5		62.5%

Table 3.1 above shows three different stakeholders from whom information that is critically needed by the researcher in gaining insights on the effects of source of funding in the provision of water and sewer services in local authority can be obtained. The sample size of six will represent the population of seven that made up the objects.

### **3.3.1 Judgmental sampling**

Tyrer and Heyman (2016) noted that when carrying survey for a town, the size of the population can difficult to bring about so it is necessary to come up with a judgemental sample. The researcher used his own discretion in choosing the respondents i.e. senior managers, middle managers and Gweru Residents Association members. Judgmental sampling involves the choice of subjects who are correctly positioned to provide with information that is required, Fieldmann (2014). The researcher chose the respondents depending on their ability to provide useful information. The researcher picked management so as to get information patterning to the effect of source of funding and the part of residents to get information patterning to the type of service being provided.

## **3.4 Sources of Data**

### **3.4.1 Primary Data**

Primary data is collected directly from the affected population by the assessment team through field work, Better Assessments Better Aid (2012). This is raw data that is being collected by the researcher himself and not by a third party. Primary data was collected using questionnaires, observation and interviews.

### **3.4.2 Secondary Data**

Secondary data can comprise of published research, internet materials, media reports, and data which has been cleaned, analysed and collected other than the needs assessment Brief (2012). It can either be internal that is in-house data or it can be external, which is also from

outside sources. Secondary data will be essential in carrying out the research although primary data provides the solution to the problem. The researcher will use secondary data because it provides with a starting point for further analysis of the effectiveness of funding on the provision of water and sewer services.

### **3.5 Research Instruments**

#### **3.5.1 Questionnaires**

A questionnaire is a list of questions that must be formulated, constructed and sequenced to produce the most constructive data in the most effective manner Locklear (2012). Questionnaires were designed and distributed by the researcher, the questionnaires contained questions designed to gather the required information and to be completed by the respondents. The questionnaires had questions that were to be responded to and these questionnaires are included at the back of the chapter. The researcher required a written response through a tick, one word or few words response. The researcher used questionnaires because they are time saving and can retrieve data in a short space of time. The use of questionnaire can assure the respondent of confidentiality. The questionnaires are designed for both management and residents' association since they are on the ground in terms of receiving the water and sewer services.

#### **3.5.2 Likert Scale**

Betram (2008) noted that a Likert scale is psychometric response scale that is primarily used in questionnaires to obtain respondents references or degree of agreement with a statement or set of statements. It is one of the most widely used approach to scaling answers in survey research, such that the term is often used interchangeably with rating scale or more accurately the Likert-type scale. Likert (1932) established a good standard in determining attitudes by asking a series of individuals to respond to a series of questions about a topic, in terms of the

extent to which they agree or disagree to them, and so tapping into the reasoning and effective components of attitude. The Likert scale is the sum of responses on several Likert items, typically between four to seven items. The odd numbered scale will be used for this research and the rating scale is. The researcher used the Likert for its easiness in the grouping of answers on the feelings expressed by the respondents and it was ease to draw conclusions on a particular question.

**Table 3. 2 Likert Scale**

<b>Strength of feeling</b>	Strongly agree	Agree	Not sure	disagree	Strongly disagree
<b>Point</b>	5	4	3	2	1

The Likert scale will be used to analyse data collected so that each question asked in the questionnaire will have a table with the ticked item. The analysis of data will follow the same table and will be easy to analyse. Data collected is easy to analyse if it is in tabular form like the Likert scale and conclusions can quickly be reached.

### **3.6 Validity and Reliability**

Validity refers to the extent to which the values provided by an instrument actually measure the attributes it is intended to measure. That is to say the instrument used should measure what it is supposed to measure. Sampling validity is the degree to which the samples are adequate sample of the total population. Content validity is the degree to which the sample test items represent the content that the test is designed to measure.

Reliability is therefore the degree of consistence that is demonstrated by the procedure employed in a study to give reliable estimates, Leung (2015). Reliability refers to the extra to which a test is consistent or dependable in measuring whatever it is intended to measure. The

questionnaires distributed contained same questions that could be used for comparison of responses that were given by individuals.

### **3.7 Data analysis and presentation**

#### **3.7.1 Data presentation**

Vosloo (2014) noted that the purpose of conducting a quantitative study, is to produce findings, whereas qualitative methods use words to construct a framework for communicating the essence of what the data reveal, procedures and techniques are used to analyse data numerically, called quantitative methods. When sorting the data, the researcher will drop disturbing outliers and ignore non- responses. The collected data will be cleaned through inspection and erroneous data will if necessary, be possibly corrected. After collecting the data, the researcher collated the data and grouped it according to thematic responses. The data were presented mainly by graphical means and through cross tabulation. The researcher will compare and test for variance the data by analysing frequencies on tables and graphs. Microsoft Excel was used in the construction of pie charts, tables and graphs. Principally, the data were prepared, organized, reduced into subjects through a process of coding and then eventually presented in figures, tables, pie charts, discussions and graphs.

#### **3.7.2 Data Analysis**

Tuckman and Harper (2012) stated that a qualitative study involves an inseparable relationship between data collection/gathering and data analysis in order to construct a coherent interpretation of data. Rowley (2014) asserts that for statistics that have been obtained from participants to make sense they should be presented in selective, accurate and clear manner. There is a multiplicity of ways that can be used to present data and for this research pie charts, tables, will be useful to analyse and present data. The responses given

were sorted according to question asked in the questionnaire, thus according to homogeneity of questions asked in the provision of water and sewer by City of Gweru.

### **3.8 Summary**

In this chapter, observation, questionnaire and interviews were the main methods of data collection used to gather relevant data in order to achieve the main objective of the research topic. The chapter is comprised of the research methodology, design, sample size, population, and the types of data used. Advantages and disadvantages of primary and secondary data are also stated together with the advantages and disadvantages of the following primary methods; questionnaire, interviews and the types of questions used in questionnaires. Validity and reliability. Chapter four covers data presentation and analysis.

## **CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS**

### **4.0 Introduction**

This chapter focuses on analysis of data collected from the field by the researcher after making use of methodologies in chapter three. Data collected and findings relates to the impact of source of funding on the provision of water and sewerage services and are going to be analysed and presented in this chapter. As indicated earlier in chapter three that data will be analysed the researcher used primary data collected through the use questionnaires and interviews.

### **4.1 Questionnaire Response Rate**

The response rate is the actual conversion of distributed questionnaires and those that the researcher got back answered and completed. The researcher distributed seven questionnaires to top management, middle management and Residents Association members. Five of the distributed questionnaires were returned and only two questionnaires were not returned which gives a response rate of 71.43%. This can be depicted by the following table below.

**Table 4.1 Rate of Response- Questionnaire**

Respondents	Number of Questionnaires		Response Rate
	Distributed	Returned	
Top Management	1	1	100%
Middle Management	2	1	50%
Residents Association members	4	3	75%
<b>Total</b>	<b>7</b>	<b>5</b>	<b>71.43%</b>

The questionnaires did not yield 100% rate of response, and only managed to get 71.43%. The percentage obtained was sufficient to draw conclusions from since other authors have even made recommendations that are lower than 70%. Rubin and Babbie (2012) recommend that at least 50% is adequate even though 60-70% were considered high and were good to very good.

#### **4.2 Presentation and Analysis; Questionnaire**

Question 2: Does funding affect provision of water and sewer services in City of Gweru?

The question intended to interrogate if source of funding is a major barrier in the provision of water and sewer services in City of Gweru. Participants who responded to the question were tabulated as indicated in the following table.

Question 2: Are they are challenges faced by City of Gweru in the provision of water and sewer

#### 4.2.1 Establishing strong source of funds

##### Raw data

**Table 4.2 Response on establishing a strong source of fund.**

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	total
Respondents	3	2	0	0	0	5
% of Respondents	60%	40%	0	0	0	100%

Out of 5 completed questionnaires 3/5 (60%) strongly agree that strong source of funding affects service delivery and 2/5 which is 40% agree that a strong source of funding affects provision of water and sewer services in City of Gweru. The other three sections carry 0/5 for the uncertain, disagree and strongly disagree. The higher frequency is being realized in strongly agree category thereby making the answer with the highest modal class. This is followed by agree class which is represented by two respondents and they make up the remaining 40% whose summation of the strongly agree and agree tally to 100%. Respondents therefore agree that the introduction of a strong source of funding by City of Gweru will increase service delivery. This is supported by Zhou and Chilunjika (2013), Kiwekete (2013) and Frumence (2014) that the introduction of a buoyant and secure source of funding will enhance service delivery in local authorities. Thus the introduction of such a strong source of

funding will lubricate the provision of water and sewer system in local authorities. Currently provision of water and sewer is greatly affected by advanced infrastructure and this is resulting in burst water and sewer pipes thereby affecting its delivery. There is therefore need to come up a strong source of funding so as to refurbish the whole network system.

The other category of questions does not seem to attract response thereby reflecting that the answer on this question is skewed towards supporting the initiation. The researcher concluded that the introduction of a strong source of funding will increase service delivery. This was arrived at using the modal class to arrive at the conclusion.

#### 4.2.2 Bank Loans

**Table: 4.3 Response acquired in the bank loans question**

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	total
Respondents	1	3	1	0	0	5
% of Respondents	20%	60%	20%	0%	0%	100%

Responses from banks loans as source of funding provision of water and sewer in City of Gweru came out as follows, thus 1/5 strongly agree which is 20% and 3/5 which is 60% agree that bank loans improve the provision of water and sewer in Gweru. The other 1/5 respondents which is 20% of they are not sure of the bank loans whether they can improve provision of water and sewer. 0/5 which 0% of the respondents disagree that bank loans will

improve water and sewer service and also 0/5 which is again 0% strongly disagree that bank loans will improve water and sewer service delivery. The 1/5 (20%) respondents strongly agree and the 3/5 (60%) respondents who agree that bank loans improve the delivery of water and sewer services in City of Gweru. Respondents who agree that bank loans improve the delivery of water and sewer constitute the modal class which is 4/5 (80%) of the respondents. Trujilo, Hong and Whitley (2015), Llanto (2013), Bond, Platz, and Magnusson (2012) and Sturzenegger (2015) view banks as enablers in the funding of water and sewer services that local authorities can rely on for the smooth provision of these services. City of Gweru is not using bank loans for the provision of water and sewer services. The respondents are of the opinion that bank loans can assist City of Gweru in the provision of water and sewer if accessed and are of good amounts.

The other 1/5 (20%) of the respondents were not certain since City of Gweru had not taken any bank loan for the provision of water and sewer in the city. Willets (2016), Nafger and Koo (2015), Vinella and Xiao (2014) concur that high bank loan interest greatly affects local authorities in the provision of water and sewer. The researcher will use response with high response rate to arrive at the conclusion that funding of water and sewer provision through bank loans will improve service. The researcher concluded that City of Gweru can improve its water and sewer service delivery if it can access bank loans so as to augment the already existing sources.

#### **4.2.3 Donations**

The thrust of this question was to assess whether donations can be relied upon in the provision of water and sewer in City of Gweru. The following are responses from participants in this question as tabulated below

**Table: 4.4 Response on donations as a way to improve service delivery.**

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	Total
Respondents	2	2	0	1	0	5
% of Respondents	40%	40%	0%	20%	0%	100%

Five people responded and 2/5 (40%) respondents strongly agree and 2/5 (40%) respondents agree that donations can improve service delivery in the provision of water and sewer. 0/5 (0%) are not sure if donations can assist in the provision of water and sewer. Whilst 1/5 (20%) respondents disagree and 0/5 (0%) of the respondents strongly disagree that donations will improve the provision of water and sewer in in City of Gweru. On aggregate 4/5 (80%) (2/5 strongly agree and 2/5 agree) agree that donations can improve the provision of water and sewer in City of Gweru. Dangal (2012), Hawkins, Blacket and Heymans (2013), and Makwara and Tavuyanago (2013) support that the funding gap created by central government in the provision of water and sewer by local authorities covered by the donor world.

The 0/5 (0%) of the respondents are uncertain due to lack of knowledge on the role played by donor world in the provision of water and sewer. The other 1/5 (20%) of the respondents disagree that the donor world can improve the provision of water and sewer in local authorities reasoning that doors are open for the assistance from the donor world but their

participation seem to be minimal. This is supported by Buthe (2013), Zivanai et al (2012) and Mairros (2013) that the role played by the donor world in the provision of water and sewer is not significant. The other 0/5 (0%) of the respondents strongly disagree that the provision of water and sewer can be improved by the donor world. The use of modal classes in this response it is pointing at the donor world being significant contributors in the provision of water and sewer. This is reflected by a high of 4/5 (80%) therefore the researcher concluded that donations play an important role in the provision of water and sewer.

### 4.3 Other challenges faced in the provision of water and sewer.

The question sought to access whether there are other challenges that are faced by City of Gweru in the provision of water and sewer. The collected responses are highlighted in the table below;

#### 4.3.1 Political challenges

**Table 4.5 The response on other challenges faced by City of Gweru in the provision of water and sewer.**

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	total
Respondents	3	1	1	0	0	5
% of Respondents	60%	20%	20%	0%	0%	100%

Respondents were five and 3/5 (60%) strongly agree and 1/5 (20%) of the respondents agree that there were other challenges that were faced by City of Gweru in the provision of water and sewer services. On the other hand, 1/5 (20%) of the participants were not sure whether there are other challenges that were faced by in the provision of the service. 0/5 (0%) of the respondents disagree that there were other challenges faced in the provision of water and sewer. Again another 0/5 (0%) of the respondents strongly disagree that there were other challenges that were faced in the provision of water and sewer. The summation of 3/5 and 1/5 give us the mode of 4/5 of the respondents who agree that there are other challenges faced by of water and sewer services. This was supported by Speight (2015) and Lambright (2014) who cited that policies created by local authorities can be affected by policies from the central government as they may directly impact on the service provision. Local authorities are currently affected by the central government as their policies are supposed to be articulated with central government in mind.

1/5 (20%) of the respondents are not sure that politics affect service delivery, 0/5 (0%) of the respondents disagree and finally another 0/5 (0%) of the respondents also strongly disagree. This is so as City of Gweru has representatives from both strong parties in the form of councilors who are voted at ward level to represent residents. This was supported by Gelting (2013) and Akhtari, Moreira and Trucco (2015) who stated that despite providing funding and technical assistance needed by local authorities' politics remain an impediment in the provision of water and sewer.

The researcher concluded that politics affect provision of water and sewer as 1/5 (80%) of the respondents agree that there is political hand in the provision of these services. This decision was arrived at after considering the modal class of the respondents.

#### **4.3.2 Population boom**

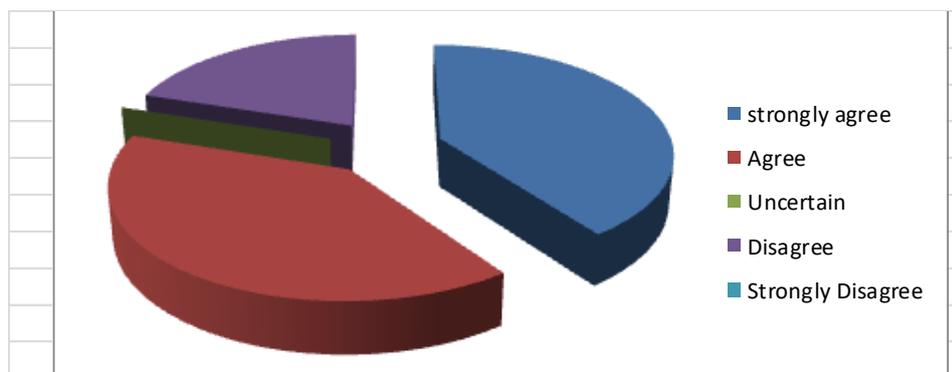
The question wanted to investigate the drastic population explosion could affect the delivery of water and sewer in City of Gweru.

**Raw Data**

**Table 4.6 Responses to population boom**

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	total
Respondents	2	2	0	1	0	5
% Respondents	40%	40%	0%	20%	0%	100%

**Fig 4.1 Responses on population boom**



The figure above depicts that 2/5 (40%) respondents strongly agree and 2/5 (40%) respondents agree that population boom affects the delivery of water and sewer in City of

Gweru. 0/5 (0%) respondents are uncertain that population affects the delivery of water and sewer services in City of Gweru. The other 1/5 (20%) respondents disagree that population boom affects provision of water and sewer in City of Gweru. 0/5 (0%) strongly disagree that population boom in the City can affect the delivery of water and sewer services. The 4/5 respondents (2/5 strongly agree and another 2/5 agree) agree that population boom in the City of Gweru affect the delivery of water and sewer in the City. The engineering process of water and sewer will have to change its dynamics in order to meet the demand of the growing population. This view is supported by Kahariri (2014), Asoka, Thou and Bunyasi (2013), Muzondi (2014) and Muturi (2012) concur that population growth in local authorities is the chief problem in the provision of water and sewer.

The modal responses were 4/5 respondents (2/5 strongly agree and 2/5 agree) agree that rapid population growth affects the provision of water and sewer in City of Gweru. The researcher concluded that provision of water and sewer is also affected by rapid population growth and this was drawn from the modal responses.

### 4.3.3 Technical Efficiency

The question sought to investigate if technical expertise was contributing towards efficiency in the provision of water and sewer.

**Table 4.7 Existence of Technical Efficiency**

**Raw Data**

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	total
Respondents	1	3	1	0	0	5

% of Respondents	20%	60%	20%	0%	0%	100%

**Fig 4.2 Response to Technical Efficiency**

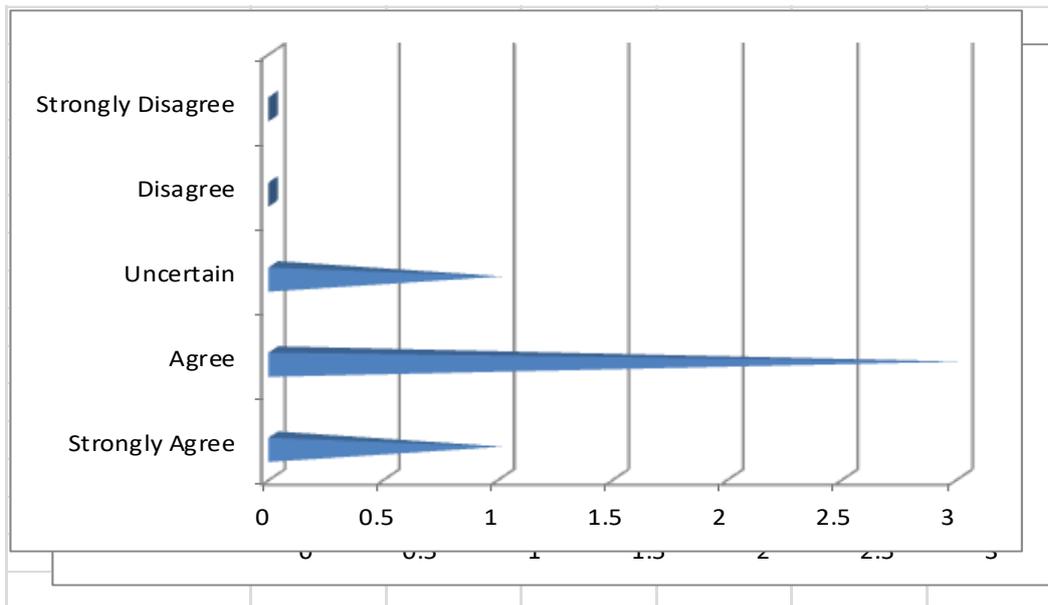


Figure 4.2 shows how five respondents have answered the question pertaining to technical efficiency. 1/5 (20%) strongly agree and 3/5 (60%) agree technical efficiencies are key in the provision of water and sewer in City of Gweru. 1/5 (20%) of the respondents were neutral or uncertain on how technical efficiencies can affect provision of water and sewer. The summation of respondents that agree to the question is 4/5 (80%) that is made out of 1/5 (20%) strongly agree and 3/5 (60%) agree that by improving on the technical efficiency City of Gweru can improve on the provision of water and sewer. The idea that technical efficiency improves in the provision of water and sewer is supported by Boscheck (2013), Hawkins, Blackett and Heyman (2013), and Dumontier et al (2016) who concurred that technical efficiency is key in the provision of water and sewer.

1/5 (20%) were uncertain if technical efficiency affects the provision of water and sewer in City of Gweru. The other 0/5 (0%) of the respondents disagree and the remaining 0/5 (0%) strongly disagree that the existence of technical expertise will affect the provision of water and sewer services. The researcher will conclude that the existence of technical expertise and regulatory framework will help to improve the provision of water and sewer services and this conclusion is actually based on the mode of responses 4/5 respondents who supported the idea.

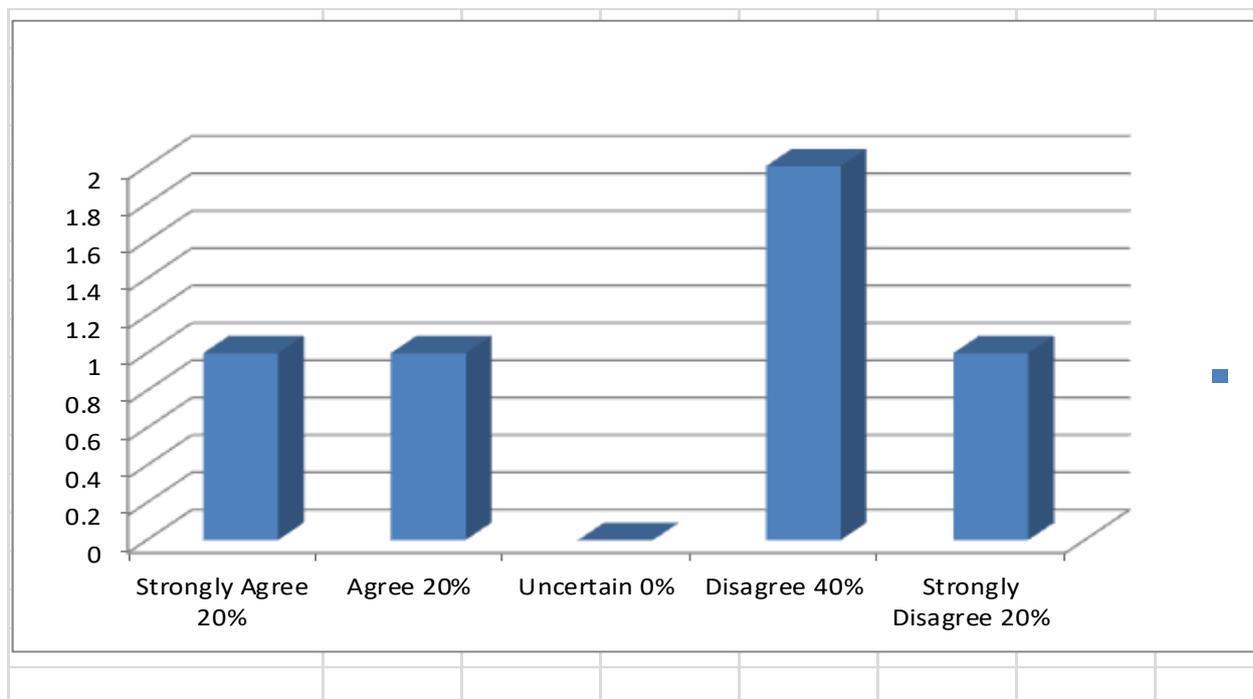
#### 4.3.4 Poor cost recovery

The question wanted to investigate if City of Gweru is charging ‘commercial rates’ in the provision of water and sewer services supplied to the residents of Gweru. Responses from this question are tabulated in the table and figure below from the 5 respondents.

#### Raw Data

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	total
Respondents	1	1	0	2	1	5
% of Respondents	20%	20%	0%	40%	20%	100%

**Figure 4.3 Responses of poor cost recovery**



As indicated in the figure 4.3 above the responses are that 1/5 (20%) strongly agree and 1/5 (20%) again agree that poor cost recovery is affecting the provision of water and sewer in City of Gweru. 0/5 (0%) of the respondents are uncertain whether poor cost recovery is affecting the provision of water and sewer in City of Gweru. On the other hand, 2/5 (40%) of the respondents disagree and 1/5 (20%) strongly disagree that poor cost recovery affect the provision of water and sewer in City of Gweru. The modal class can be obtained by the summation of 1/5 (20%) strongly disagree and 2/5 (40%) disagree which is 3/5 (60%) who disagree that poor cost recovery is affecting the provision of water and sewer in City of Gweru. This is supported by Wangui (2012), Chetty and Louiz (2014) and Chukwu (2015) who clearly pointed out that losses incurred are as a result of poor management, thus failure to repair burst pipes and leakages as well as rampant corruption and poor state of infrastructure. The researcher will conclude that it is not poor cost recovery that affects the

provision but rather lack of competence in the maintenance of basic infrastructure as coming up with a robust framework that governs the provision of water and sewer.

#### 4.4 Does City of Gweru have other sources of funding for the provision of water and sewer?

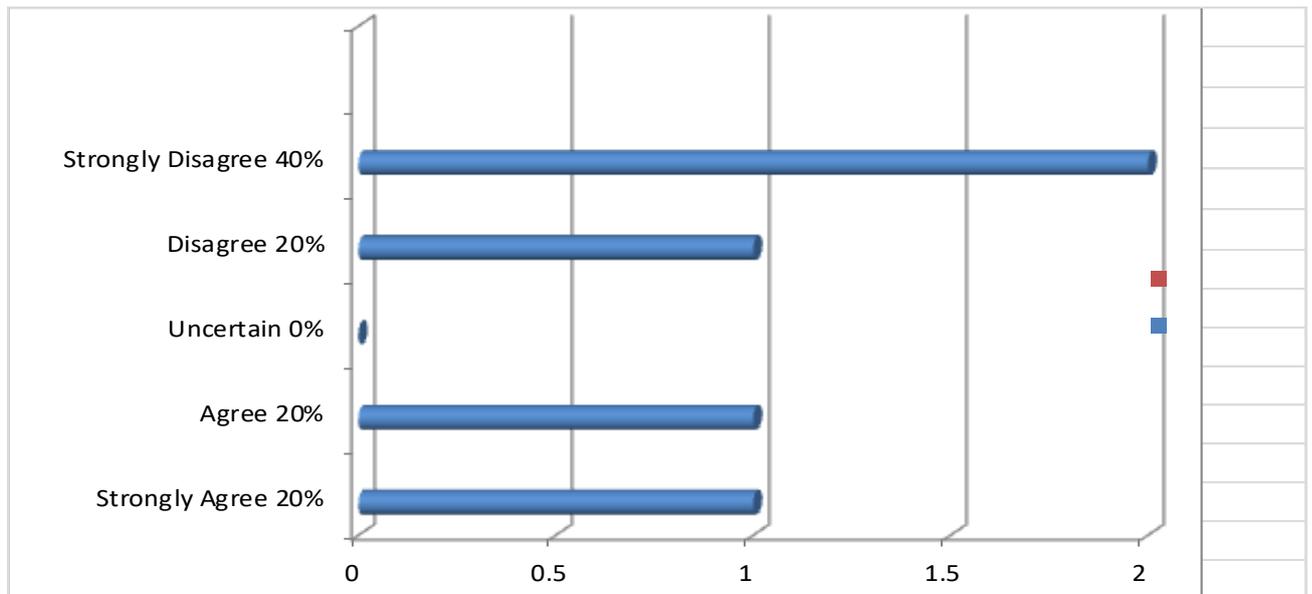
The question seeks enquire if City of Gweru have other sources of funding that could improve in the provision of water and sewer. From this question the study aims to investigate if City of Gweru can access other sources of funds in the provision of water and sewer.

##### 4.4.1 Community Funding

###### Raw Data

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	total
Respondents	1	1	0	1	2	5
% of Respondents	20%	20%	0%	20%	40%	

**Fig 4.4 Responses outcome from community funding of water and sewer**



There were five respondents to this question, 1/5 (20%) strongly agree while another 1/5 (20%) of the respondents agree that there is community funding of water and sewer projects. On the other hand, 0/5 (0%) of the respondents were uncertain, the remainder 1/5 (20%) of the respondents disagree that there were community funding and a huge percentage 2/5 (40%) of the respondents largely disagree that there are community funding of water and sewer projects by City of Gweru. The modal response of 3/5 (60%) which is made out 1/5 (20%) disagree and 2/5(40%) strongly disagree that there are communities that are partnering with City of Gweru to fund water and sewer projects. This was supported by Cohen (2012), Schlechter, Coleman and Anyway (2012) and Makwara and Tavuyanago (2012) argued that yet community funding is good idea in terms of revolving funds local authorities lack funding to initiate them and also that the capital requirement for such projects is so huge that communities cannot fully fund them.

0/5 (0%) of the respondents were uncertain that there were community funding projects in the provision of water and sewer. 1/5 (20%) of the respondents agree that there was community funding in the provision of water and sewer the remaining 1/5 (20%) strongly agree that there were community based water and sewer projects. Copeland et al (2016), Duflo (2012),

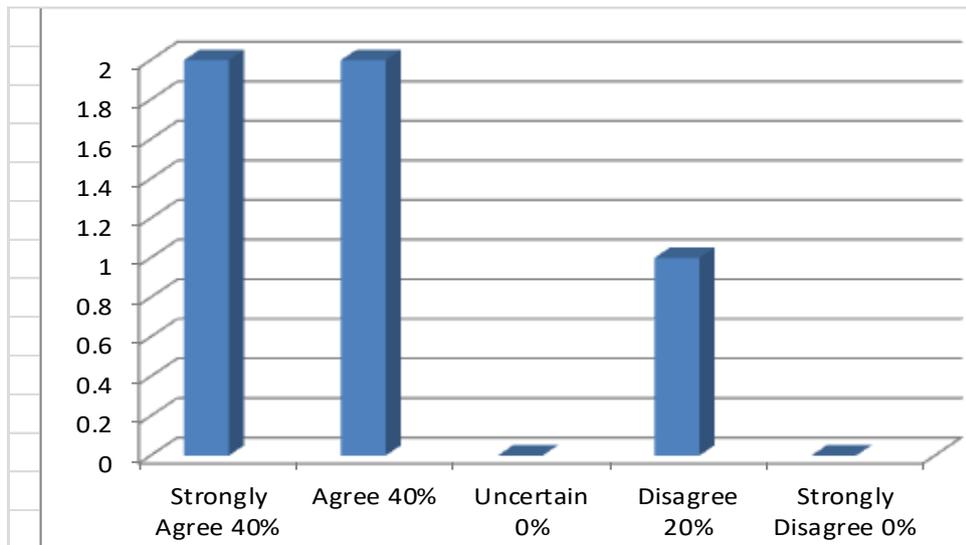
Tremolet (2012), and Chou, Hammer and Levine (2014) agree that there was need for local authorities to come up with community funding that is incentivized and also revolving for its sustainability.

#### 4.4.2 Central government funding

##### Raw Data

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	total
Respondents	2	2	0	1	0	5
<b>% of Respondent</b>	<b>40%</b>	<b>40%</b>	<b>0%</b>	<b>20%</b>	<b>0%</b>	<b>100%</b>

**Fig 4.5 Response from central government funding**



From five respondents the results are tabulated and clearly shown in fig 4.5 above, 2/5 (40%) strongly agree and another 2/5 (40%) agree that there is funding from central government in the provision of water and sewer. While 0/5 (0%) is uncertain about government providing funding for water and sewer for City of Gweru. 1/5 (20%) of the respondents disagree that there is funding from central government and the remaining 0/5 (0%) strongly disagree that there is no funding from central government. 4/5 (80%) of the respondents made up of 2/5 strongly agree and 2/5 agree that there is funding from the central government for the provision of water and sewer. In support of this idea Onyechere (2012), Makwara and Tavuyanago (2012) and Kiwekete (2013) noted that the provision of water sewer requires huge capital and there is need for central government to be involved in the provision of water and sewer through capital injection.

The 0/5 (0%) of the total respondents were uncertain that government provide funding in the provision of water and sewer. The residents are never involved if government provides funding for water and sewer provision. This was highlighted by Otieno, Odando and Rambo (2014) when they said even though the government provides funding for water and sewer there is need to involve all stakeholders in the process. The remaining 1/5 (20%) of the respondents disagree that there is funding from central government and lastly 0/5 (0%)

strongly disagree that there is funding from government. Muturi (2012) noted that central government in the southern Africa south of Sahara has been disbursing small amounts for the provision of water and sewer to a little as 6% of the budget. 4/5 (80%) of the respondents makes the modal class and the researcher concluded that there is funding from central government in the provision of water and sewer.

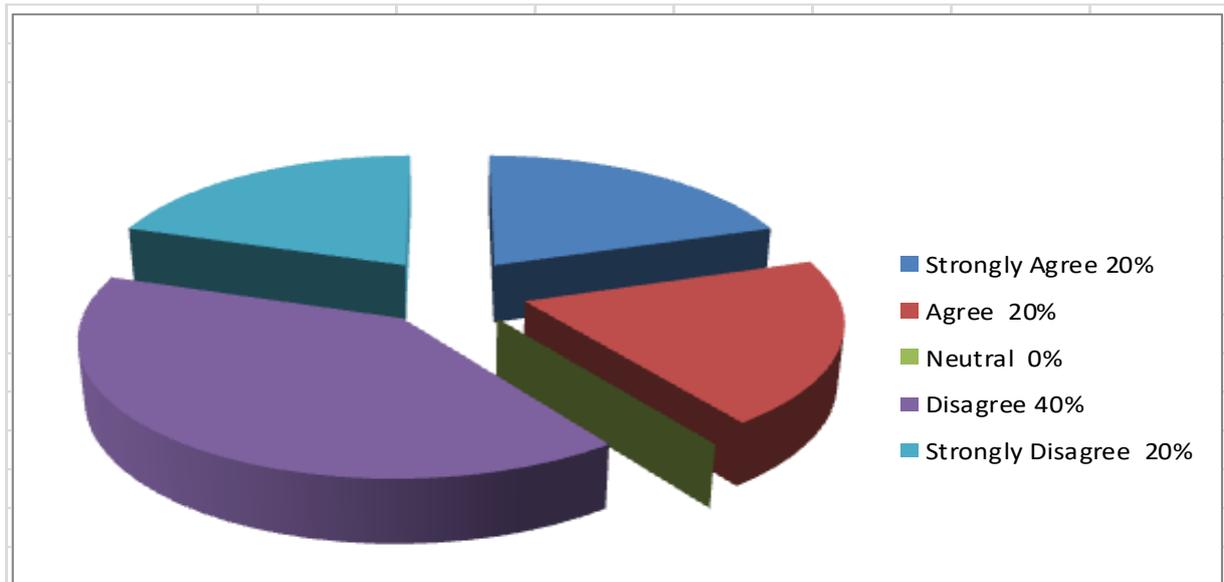
#### 4.4.3 International funding in the provision of water and sewer.

The question's intention was to investigate if City of Gweru was receiving any international funding in the provision of water and sewer. This was going to be used as the basis to see the magnitude of flow of funding from such institutions and its effect on the provision of water and sewer.

#### Raw Data

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	total
Respondents	1	1	0	2	1	5
% of Respondent	20%	20%		40%	20%	

*Fig 4.6 Response from international funding of water and sewer services as illustrated by the pie chart below.*



1/5 (20%) of the respondents strongly agree that there is international funding and another 1/5 (20%) agree that there is international funding received by City of Gweru in the provision of water and sewer. Response on the question recorded 0/5 (0%) of the respondents were neutral about international funding on water and sewer and 2/5 (40%) of the respondents disagree that there is international funding and the remaining 1/5 (20%) of the population strongly disagree that there is such funding. In the positive side 2/5 (40%) of the population agree that is 1/5 (20%) of the population strongly agree and another 1/5 (20%) agree. Satterthwaite (2013), Blyther (2012), Boex (2014) and Traub (2014) support the view that even though central government should provide for funding of water and sewer there is need to open up to the international world for funding.

On the other hand, 2/5 (40%) disagree that there is funding and 1/5(20%) strongly disagree while 0/5(0%) are neutral about international funding on the provision of water and sewer. Gbedemah (2012) seemingly support that, when he said even though international funding is increasing the quality of water and sewer do not seem to increase with increase in funding. 3/5 (60%) make the modal responses that is 1/5 (20%) strongly disagree and 2/5 (40%)

disagree. Researcher concludes that there is no international funding in the provision of water and sewer in City of Gweru.

#### 4.5. Provision of water and sewer can be improved by adopting other strategies.

The question wanted to investigate if there are other strategies that can be implemented by City of Gweru to improve in the provision of water and sewer. The strategies could therefore be used to improve service delivery of water and sewer.

#### 1.5.1 Cost recovery

**Table 4.8 Responses on cost recovery**

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	total
Respondents	2	1	1	1	0	5
% of Respondents	40%	20%	20%	20%	0%	100%

The respondents again are of the view that service delivery can only be improved by recovering some costs. 2/5 (40%) strongly agree that cost have to be recovered and 1/5 (20%) agree that some costs have to be recovered. 1/5 (20%) again are neutral on whether costs have to recovered to deliver costs. On the other hand, 1/5 (20%) disagree that cost recovery can improve the provision of water and sewer and 0/5 (0%) of the respondents strongly disagree that that recovery of costs can improve on the provision of water and sewer. 3/5 (60%) of the respondents made out of 2/5 strongly agree and 1/5 agree make the modal class.

In support of this view Sutherland and Lewis (2012), Duflo (2012) and Fiasorgbor (2013) are of the view that there are huge capital requirements in the provision of water and sewer and there is need to recover some costs as funds are always a challenge in the provision of water and sewer.

On the other hand, 1/5 (20%) of the respondents are neutral on the cost recovery and another 1/5 (20%) disagree that costs recovery can improve service and finally 0/5 (0%) strongly disagree that provision of water and sewer. Duflo (2012), Otti (2012) and Banana (2015) noticed that because of capital requirement there is need to come up with contracts that are cost effective. The researcher concluded that there was need for City of Gweru to recover and indicated by the number of respondents from this question which was supported by 60%.

#### 4.5.2 Twinning of cities.

**Table 4.9 Responses on the twinning of cities**

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	total
Respondents	3	1	0	1	0	5
% of Respondents	60%	20%	0%	20%	0%	100%

The twinning of cities to attract some huge followers with 3/5 (60%) of the respondents strongly agree that it will improve service delivery of water and sewer while 1/5 (20%) of the respondents agree that service delivery can be improved. 0/5 (0%) of the respondents are neutral on this question and 1/5 (20%) of the respondents disagree that service delivery can

be improved by twinning of cities and the remaining 0/5 (0%) of the respondents strongly disagree with the opinion. The highest responses seem to agree that twinning of cities improve delivery of water and sewer and is represented by 4/5 (80%). This is made up of 3/5 (60%) who strongly agree and 1/5 (20%) who agree that twinning of cities will improve service delivery. This is supported by Platforma (2013), Zivanai et al (2013), Oates et al (2014) and Furlong (2015) concur that twinning of cities will enhance strategic planning and response as well as technological sharing which will make them gain better insights in problem solving. The researcher in sympathy with the number of respondents 60% who agree, concluded that twinning of Cities will improve service delivery for water and sewer in City of Gweru.

#### 4.5.3 Timely billing of Ratepayers

**Table 4.10 Response rate on timely billing of ratepayers**

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	total
Respondents	2	2	1	0	0	5
% of Respondents	40%	40%	20%	0%	0%	100%

From the question that timely billing can improve service delivery for water and sewer. 2/5 (40%) of the respondents strongly agree and another 2/5 (40%) of the respondents again agree that it improves service delivery. 1/5 (20%) of the respondents are neutral on this

question while 0/5 (0%) of the respondents seem to disagree that there will be no improvement in the delivery of water and sewer and the remaining 0/5 (0%) strongly disagree that timely billing improve water and sewer service delivery. The highest frequency is coming from people who support that timely billing is can improve service delivery in the provision of water and sewer. 4/5 (80%) which is made up 2/5 (40%) of the respondents strongly agree and another 2/5 (40%) of the respondents agree. In support of this Garaiza (2014) and Machingauta (2014) noted that there is positive relationship between timely billing, timely settlement and service delivery.

On the other hand, 1/5 (20%) of the respondents are neutral on the issue and 0/5 (0%) of the respondents disagree and the remaining 0/5 (0%) of the respondents strongly disagree. City of Gweru seems not to be billing their residents in time. Those who are billed and paid the money is diverted for other issues such as salaries. There will be little left to sustain service delivery. This was supported by Gambe (2013) who stated that even ratepayers pay their bills in time; the money is channelled towards some pressing issues such as salaries.

The researcher concluded timely billing will increase early settlement of bills thereby increasing funding in the provision of water and sewer. This conclusion was derived from a modal response of 4/5 (80%) of the overall response.

#### 4.5.4 Value for money services

**Table 4.10 Response rate on value for money services**

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	total
Respondents	3	1	0	1	0	5
% of Respondents	60%	20%	0%	20%	0%	100%

From the data collected 3/5 (60%) strongly agree and 1/5 (20%) agree that people will always pay in the quality of services they are paying for with the value of money they are charged. 0/5 (0%) of the respondents are neutral about value for money on the services provided. On the other hand, 1/5 (20%) disagree that value for money services and the remaining 0/5 (0%) strongly disagree that real value for money services will help in the improve funding for services delivery in City of Gweru. huge responses point out that improving service delivery for water and sewer will in turn improve funding for the provision of water and sewer in City of Gweru. This is represented by 4/5 (80%) made up of 3/5 (60%) of the respondents strongly agree and 1/5 (20%) of the respondents agree. This is supported by Zivanai et al (2014) and Makanyeza, Kwandayi and Ikobe (2013) who emphasized that ratepayers are prepared to pay for any service provided that the quality is exceptional.

On the other hand, 0/5 (0%) of the respondents are neutral on the issue and 1/5 (20%) of the respondents disagree that real value for money services will not improve provision of water and sewer in City of Gweru and the remaining 0/5 (0%) of the respondents strongly disagree

that value for money services will increase funding in the provision of water and sewer in City of Gweru. The researcher is made to draw conclusion that real value for money services will improve funding for the services. This is so because 4/5 (80%) agree that City of Gweru should adopt real value for money services in their services. The researcher concluded that there need to improve the quality of service that is delivered to the residents so that they pay for real money services.

#### **4.6 Any other contributions towards improvement of water and sewer provision**

Out of the five respondents 4/5 (80%) concur that there is need to have an Engineer who is responsible for water and sewer. This will improve the service as someone will be available for the provision of water and sewer challenges are identified and solved. 1/5 (20%) of the respondents is of the mind that response team is supposed to be scattered all over the City to enable quick response to areas all over the City. Hawkins, Blackett and Heymans (2013) support this cause by saying that funding, legal framework and political environment can be sound but if there is no technical expert to the service provision there will be a challenge in the provision of water and sewer.

#### **Interview Responses**

As highlighted in chapter 3 two interviews were conducted one to senior management and the other to the residents' association staff. The two have knowledge in terms of both financial constraints faced by City of Gweru which is reflect through service delivery and budgets that are presented to them annually. The two interviews were scheduled were held successfully.

#### **Question 1. Is provision of water and sewer affected by source of funding?**

The first respondent mentioned that source of funding heavily affects the provision of water and sewer as the provision of such services need strong funding availability. The respondent also further revealed that the infrastructure has seen its days so the funding currently

available can only do the repairs of the system. The organization needs infrastructure overhaul and that needs a substantial amount for the exercise. This was supported by Purohit (2016) cited that the funding of urban infrastructure is not only huge but it is also growing and there is need to engage private sector, set national board to facilitate infrastructure development and improve service delivery.

The second respondent clearly pointed out that in as much as City of Gweru could be facing financial challenges its efforts towards combating water and sewer bursts should be done swiftly as waiting to access huge amount can cause challenges in the short run. He also mentioned that generally the economy is not performing well so there is need to effectively allocate scarce resources to areas of great importance. He added that most local authorities are faced by the same situation and there is therefore need to revise allocation in the funding of water and sewer provision.

The researcher concluded that source of funding is critical in the provision of water as its absence can result in poor service delivery. This implies that the organization should create a strong source of funding for the provision of water and sewer so to provide sound water and sewer services to City of Gweru residents.

**Question 2. What other strategies have management put in place to improve the service delivery of water and sewer.**

The first respondent indicated that budget has been increased year on year in order to improve the delivery of water and sewer service. The expectation is that if water and sewer budget is increased the quality of the services should also improve. He also added that there was also maintenance being done on the old infrastructure that is burst water and sewer pipes, improving pumping capacity as well servicing sewer ponds. This was supported by Makwara and Tavuyanago (2012) who stated that local authorities rely on central government for the

laying of new pipes for water and sewer system but the challenge is that central government lack money and there is rampant corruption.

The second respondent pointed out that City of Gweru is also busy partnering with private investors in the provision of water and sewer called the public private partnerships (PPPs). Management is also partnering with the donor world in the provision of water and sewer who donating equipment and also providing local grants in the provision of water and sewer. He added without the assistance from donors like GIZ the situation could be very bad. This was supported by Makwara and Tavuyanago (2012), Blyther (2012) who noted that water and sewer provision have got many players of which some are donors, governmental organizations, governmental groups, private business and foundations.

The researcher concluded that management was doing anything at their disposal to improve the provision of water and service delivery as seen in partnering with the donor world as well as private investors. This will improve the quality of services being provided as financial assistance can also lead to technological sharing and hence service delivery can be improved by City of Gweru.

**Question 3. Does City of Gweru have any other source of funding besides sale of water?**

The first respondent said that there is funding that came in the form of donors and central government. The respondent added that due to recent global economic meltdown and the general performance of the Zimbabwean economy the funding is becoming smaller and smaller and in other cases it is not coming at the right time. This was supported by Gutman, Sy and Chattopadhyay (2015) who stated that central government funding gap in the

provision of water and sewer has been able to be absorbed by donors so as to provide efficient services to the citizens.

The second respondent stated that there was not much funding coming from other sources such as donors and the central government because of the general state of the economy not only nationally but also looking at the whole world at large. The respondent added that City of Gweru has to rely heavily on its 'internally' sourced funds for the provision of both water and sewer services. This was supported by Zivanai et al (2012) argued that in as much as external sources of funds can be acceptable in the provision of water and sewer, local authorities will only be forced to pay attention to what the donor wants and not what they would want to do with funding if they had freedom over it.

The researcher concluded that the traditional sources of funding were shrinking due to harsh economic environment and the need therefore to adopt an inward looking approach in the provision of water and sewer. The provision for water and sewer funding for City of Gweru is being sourced from within the revenue realized from ratepayers.

**Question 4. Does City of Gweru employ an expert in the provision of water and sewer?**

The first respondent said that for a very long time the technicians for water and sewer have been running the section even though the organogram provides for the position of water and sewer Engineer. He also further added that challenges faced in the section could be so pronounced because of lack of professional expert on the field.

The second respondent said that there was a position of water and sewer Engineer that was in the process of being filled which has been vacant for more than 15 years. He added that the

problems of water and sewer could be pointing on this vacant post and by filling the post City of Gweru is taking a giant step towards solving the problem.

The researcher concluded that challenges faced by City of Gweru could be more of technical than a funding issue as there is no technical expert on the ground to make sure that there is a proper framework that is crafted towards the service delivery.

#### **4.7 Summary**

Data presentation and analysis was at the centre of chapter four and both primary and secondary data was analysed where primary data was collected through questionnaires and secondary data was collected through company documents. Data was analysed through tables aided by graphs as well as because of nature of information descriptions were also used to assist the reader understanding what is being portrayed.

## **CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **5.0 Introduction**

The focus for this chapter is to wind up the research by summarizing research findings and making recommendations on the impact of source of funding on the provision of water and sewer services in City of Gweru. The overall research is therefore summarized in this chapter; findings as well as suggestions are to be addressed by the researcher.

### **5.1 Summary of Chapters**

The first chapter introduced the variables of funding and service provision in the provision of water and sewer. This was actually triggered by the fact that there is an existing source of funding that is 'healthy' but service delivery seems to be pointing in the negative. The water and sewer budget has also been reviewed upwards from year to year and is represented by a 22% in 2013 budget, in 2014 to 2015 there was a 78% increase in the budget and finally in the 2016 there was a 100% increase in the budget which is shows that management is concerned with the water and sewer in the City. On the other hand, actual expenditure was having been high. This was shown by 42% of the budgeted expenditure, in 2014 there was 83% of the budgeted and in 2015 there was 15% of the actual expenditure. With all these efforts there is still outcry in the provision of water and sewer. The study therefore sought to investigate if source of funding had effect in the provision of water and sewer.

In chapter two reviewed literature on the source of funding in the provision of water and sewer in local authorities in Zimbabwe and the world over. This was guided by the objectives of the study that had been set in chapter one. The literature that was reviewed was in connection to the effects of funding in relation to funding and water and sewer provision that is happening on the globe. This literature actually captures different thoughts of the authors,

thus some authors supporting the idea and also capturing authors who share a different opinion of the same view. Information contained in this chapter is from sources which among others include company publications, dissertations, journal and books from many authors.

Chapter three looked at research methodology that is the gathering of data and the tools that were used to gather data. In the data gathering the researcher used different methods which included graphs and case study design were also used. There are key stakeholders in City of Gweru which include management and Residents Association who are voices of the residents at large. Participants in the questionnaire included 1 participant from top management, 2 from middle management and 5 participants from Residents Association. Data was gathered from these two key players. The chapter also clearly shows how descriptive research design was used in gathering qualitative data. There are various research instruments that are used in the gathering of data and they are also included in the chapter.

Chapter four looked at data presentation by the researcher, tables and graphs were used in the analysis. Data was presented in excel format capturing data on tables and again converting that data in graphical presentations, which included pie charts and bar graphs. Graphs were used because of their effectiveness in data presentation.

## **5.2 Major Research Findings**

Establishing a strong source of finance and getting donations can actually improve provision of water and sewer in the City as well as getting loans from the bank and engaging technical expertise. There is also funding that is received from central government to assist in the provision of water and sewer. The existence of all these attributes cannot alone solve the

problems in the water and sewer service provision. Twinning of cities and value for money service provision can assist in the provision of water and sewer.

City of Gweru is faced by lack of technical expert in the provision of water in the form of Engineer who can come up with frame works designing and maintaining the infrastructure. Both community funding and international funding were not accessed by City of Gweru. There is need for City of Gweru to recover costs to assist in provision of water and sewer. The researcher concluded that in as much as we may have other factors being oiled in the provision of water and sewer lack of an expert in the provision of the service can defeat the positives created in other inputs to the challenge

### **5.3 Recommendations**

There is need to recruit an expert in the provision of water and sewer services since there is need to come up with an upright policy in the provision of water and sewer guided by a concrete framework and policy. There is need for management to come up with effective management loss reduction strategies not only in sound financial management but also losses that can come in the form of ever leaking pipes of treated water. These indirectly contribute significantly to overall company losses since all resources will be allocated and wasted in the form of water being pumped to waste. The organization should come up with a strategy of pre-paid water meter that enhance revenue collection thereby increasing liquidity in the institution. The organization can create a platform whereby it interacts with the residents not only during the budget formulation process but rather engaging them in the provision of services. Hawkins, Blackett and Heymans (2013) argued that enabling legal, political, or institutional conditions are important factors in making service delivery work, but some technical challenges remain

## **5.4 Summary**

Chapter 5 summarized, concluded as well as made recommendations on the study. The study was centred on the investigation on the investigation of source of funding on the provision of water and sewer. Finally, recommendations to the organization were also included in the chapter hopefully if they are implemented might be of very useful.

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Appendix II

Research project questionnaire

**TOPIC: An investigation on the effects of funding on provision of water and sewer-A  
Case Study, City of Gweru**

Please answer the question by ticking in the correct box or fill in the space given. Thank you.

Name of the organization.....

**1. For how long have you been working for this organization?**

1-5 years       5-10 years       10- 15 ye       15-20  hrs      20  rs

**2. Does funding affect provision for water and sewer services in City of Gweru?**

	Strongly agree	Agree	Not sure	disagree	Strongly disagree
<b>Establishing a strong source of funding</b>					
<b>Bank loans</b>					

<b>Donations</b>					

**3. There are other challenges faced by City of Gweru in the provision of water and sewer services**

	Strongly agree	Agree	Not sure	disagree	Strongly disagree
<b>Political challenges</b>					
<b>Population Boom</b>					
<b>Technical Efficiency</b>					
<b>Poor Cost recovery</b>					

**4. City of Gweru has other sources of funding in the provision of water and sewer other than sale of water**

	Strongly agree	Agree	Not sure	disagree	Strongly disagree

	agree				
<b>Community funding</b>					
<b>Central government funding</b>					
<b>International funding</b>					

**5. Provision of water and sewer can be increased by adopting other strategies**

Strongly agree      Agree      Not sure      Disagree      Strongly disagree

**Cost recovery**

**Twinning of Cities**

**Billing ratepayers in time**

**Value for money service delivery**

**6. Any other contributions .....**  
 .....  
 .....  
 .....  
 .....  
 .....

**I thank you**

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## Appendix III

### INTERVIEW QUESTION GUIDELINES

- i) **In your opinion is provision of water and sewer affected by source of funding?**
- ii) **What other strategies have management put in place to improve service delivery of water and sewer?**
- iii) **Does City of Gweru have other source of funding besides sale of water?**
- iv) **Does City of Gweru employ an expert in the provision of water and sewer?**



Midlands State University

P Bag 9055

Gweru

15 March 2017

The Town Clerk

City of Gweru

P. O. Box 278

Gweru

Dear Sir/ Madam

**RE: APPLICATION TO CONDUCT RESEARCH AT YOUR ORGANISATION**

I am a final year student at Midlands State University studying Bachelor of Commerce Accounting Honours Degree. The final year involves undertaking an industry oriented research. My topic is **“An investigation on the effects of source of Funding in the provision of water and sewer services: case City of Gweru”**.

To make this research a success, I kindly ask you to assist by responding to questions in this questionnaire. I guarantee that all the information will be treated with confidentiality as research is strictly for academic purposes only.

Your assistance will be greatly appreciated.

Yours Faithfully

Solomon Ezra

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