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**FACULTY OF COMMERCE
DEPARTMENT OF ACCOUNTING**

PROJECT TOPIC:

An Investigation of new revenue sources to improve funding gap.

Case study of ZINWA

By

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DEDICATION

It is with sincere appreciation that I dedicate this research to my lovely parents, Mr J and Mrs,L Mukandabvute. I salute you for being the best parents in the world. I am honored to have you in my life .God bless you always.

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It is with a humble heart that I acknowledge the faithfulness of the Lord in the fulfilment of his word in my life, that he started a marvelous work in my life, and with grace, has brought it unto completion. I acknowledge the unmerited grace.

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ABSTRACT

This dissertation was undertaken with the purpose of finding out new revenue generating sources that ZINWA can implement to alleviate the expanding funding gap at the organization .The research sought to determine the possibility of ZINWA in engaging in aquaculture and public private partnership to increase revenue .Literature review was given with regard to the potential revenue sources. An investigation by use of questionnaires and interviews, to get the opinion of employees at ZINWA with regard to the adoption of new revenue sources was conducted .The design that was utilized is descriptive. A sample consisting of 24 respondents was drawn and questionnaires were given them .Interview were given a sample of 5 respondents .Based on the contributions by the respondents, the revenue generation was low due and inadequate to cater for both capital and revenue expenditure. Noted from the research, ZINWA was mainly affected by poor infrastructure, uncompetitive pricing structures, mismanagement of resources and illegal reconnections of water supply. Results showed that ZINWA should adopt aquaculture to widen its revenue generating capacity.

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DEFINATION OF TERMS AND ABBREVIATIONS

Revenue Refers to the activity or operation that an entity undertakes to earn its cash inflows

Aquaculture Is a commercial activity of managing water organisms such as fish in structured resources in the form of tanks, resevoirs, dams and ponds for revenue generation.

Public private partnership Refers to the coming together of a public organization with private companies for the purpose of infrastructure building ,construction of major projects for a certain condition ,that may be a certain percentage of the income generated from the project .

Funding gap Is the difference between the required resource to fulfil a mandated duty or project and the available resources.

PPP Public private partnerships

ZINWA Zimbabwe National Water Authority

CHAPTER1

1.1INTRODUCTION

1.2 Background of the study

This research is driven by the need to complete projects, improve service provision, acquire equipment, repair and maintain the available machinery and meet the employee benefits at ZINWA. In a newspaper statement, the minister of Environment, Water And Climate, Kasukuwere (2014), stated that most of the water projects on average, remain 60% complete for example the Tokwe –Mkosi dam which is currently 63% complete , most of ZINWA’s dams are polluted, taps in households are constantly dry, developing towns need new sources of water , some farmers are operating without water permits and industries need water supply. He said this whilst announcing the new board and advocated that there is need to alleviate revenue streams operating at ZINWA.

The existing revenue bases are levies, groundwater division, water supply, water bottling and borehole drilling subject to the ZINWA Act. ZINWA gets revenue from levies which are every permit holder is required to pay a levy. In regard to the prices set for raw water,(www.zinwa.co.zw,26/08/2014,15.07) the farmers are levied for the raw water they utilize. The levy on abstractions is currently \$40 per mega litre. However according to an article by Moyo (2014) ZINWA is failing to supply equipment to farmers so that they can draw water from dams and rivers .therefore they do not have the willingness to pay hence the level of revenue base in the organization is reduced. According to the ZINWA Sanyati station records, the accountant, Madambi(2013) highlighted that there has been no water supply to Nyaodza Station since July 2012 up to the reporting date October 2013 , due to the fact that the diesel engine used to pump

water to consumers is no longer working. This is due to the fact that the catchment is failing to buy a new diesel pump that costs \$75000 .In a herald report (2011)853 households in Mvuma went for 3 months without water as a result clear water line that had bursted. The switch engine at the station had also become non functional, it took 3 months to raise the \$87550 that was used to acquire and install the new equipment. Therefore there is need to come up with strategies to improve revenue collection to provide better services.

The Kumakomo Spring Water was initiated in 2012 as a way to boost revenue ,and obtained a market share of 1,9% .In 2013 the market share rose to 5,8% due to the banning of 40 bottling companies by Health and Child Welfare leaving only 9 companies operating according to the Manjalo(2013) . The report states that national average consumption of bottled water is currently 180bottles per year per individual and the estimated number of consumers is 7,8million.According to the ZINWA revenue analysis, Kumakomo had revenue of \$365548 for 2012, and \$876934, for 2013.This is only for the water bottled and distributed in Mutare. Kumakomo has a potential of selling 452 400 bottles per year which based on the given number of consumers, times 7 catchments, 3166800 bottles which will bring in revenue of \$1583400. However the division is only located in Mutare .There are no other branches at the other six catchments. Despite the rise in bottled water consumption as a result of avoidance by consumers to drink tape water, ZINWA is failing to maximize water bottling against the fact that that industry is growing. This research aims to investigate the challenges ways that can be adopted to improve the revenue collection from this department.

The internal audit conducted in 2012 indicated that the revenue base of ZINWA is at high risk is it is below the expenditure incurred .The table below shows the behavior of revenue and expenditure 2011, 2012 and 2013.

Table1.1 revenue, expenditure analysis

Year	Revenue	Expenditure	Variance
2011	5 106 905,05	6 307 218,90	(1200313.85)
2012	7367,343,79	7813 184,47	(445840.68)
2013	10 787 241,89	12 242 807,06	(1455565.17)

Source .ZINWA Sanyati Revenue, Expenditure Analysis2011,2012,2013

As indicated by table 1.1 the revenue collected has been lower than expenditure incurred for 2011, 2012 and 2013. Therefore there is a critical need to prioritize the strategies that can enhance cash inflow capacity of the organization. ZINWA can adopt aquaculture and public private partnership.

1.3Statement of the problem

ZINWA is struggling to fund for its projects and recurrent expenditure. Most of the water projects on average, remain 60% complete for example the Tokwe –Mkosi dam which is currently 63% complete , most of ZINWA’s dams are polluted, taps in households are constantly dry, developing towns need new sources of water. This research seeks to find ways that ZINWA can embark on to facilitate for a growth in revenue collection and improve the funding gap.

1.4 Main research question

What new sources of revenue can be adopted to alleviate the funding gap at ZINWA?

1.5 Research objectives

- 1) To evaluate the currently used revenue bases at ZINWA Sanyati.
- 2) To establish the applicability of aquaculture in improving the revenue base and lessening the funding gap.
- 3) To evaluate if public private partnership can be applied by ZINWA to rectify the funding gap and increase revenue collection.
- 4) To identify the challenges that are likely to be faced in each new revenue source.
- 5) To give best practice that will help reduce the funding gap at ZINWA.

1.6 Sub research questions

- 1) What bases are being utilized currently at ZINWA to obtain revenue?
- 2) How does aquaculture assist in the revenue collection and reduce the existing funding gap?
- 3) How does public private partnership improve revenue collection and decrease the funding gap?
- 4) What challenges are most probable to be encountered in each new revenue source?
- 5) What measures can be taken to alleviate the challenges?

1.7 Significance of the study

The research will help the student in strategic planning as it is based on seeking a solution. The researcher will be elevated in projects planning, statistical analysis, and evaluation of journals, newspapers, articles done by other researchers. This will enhance abilities for the future after completion of the Bachelor of Commerce Accounting Honors Degree.

Students who desire to partake their study in this area will be helped by this research .It will assist with guidance in terms of qualitative and quantitative data .The results from this research will help the organization in resolving the funding gap existing in the organization .The organization can implement recommendations that will be given by the researcher.

1.8 Delimitation

The study shall be focusing at ZINWA-Sanyati offices in Gweru. The time period that is considered is from January 2011 to December 2013.the research was limited to ZINWA Sanyati Catchment only. The focus was on the employees of the 82 stations within the catchment.

1.9 Limitations

The period acquired to carry out the study from January 2013 to December 2013 and it was a great limiting factor for the execution of this research. It was impossible to gather all material evidence relevant in the research .However the researcher will try to the best of her ability to ensure that as much as possible of the relevant materials is included in the research despite the time constraints.

ZINWA Sanyati covers 82 stations however it was not possible to cover all stations .Another limitation is that some respondents may be willing to divulge the crucial information as will be needed by the researcher for reasons of confidentiality. In some instances the information provided may be biased. The researcher will use relations developed during work-related learning to obtain necessary information.

1.10 Assumptions

This research is based on the assumption that information provided is reliable, the respondents will cooperate effectively and will be acquainted to the revenue bases stated. The statistics provided will be reliable.

1.12 Summary of the chapter

This chapter covered the main aspects by taking into account the background which highlighted the problem, objectives of the study ,limitations ,delimitations and assumptions .The next chapter will focus on literature review.

CHAPTER 2 LITERATURE REVIEW

2.0 revenue enhancement strategy

According to Hattingh (2012), these are ways in which organizations can alleviate their revenue bases .It can be in the form of expanding existing sources or implementing a new revenue source. This will help in raising funds to alleviate the existing gap in funding as new revenue streams will be bringing in cashflows for the organization. Atta-Mills (2011) suggests that state owned organizations have to mobilize resources that will help attain financial stability. Policies, principles and procedures have to be followed to reduce funding gap which is a burden to parastatals. According to Johnson et al (2009) in Hassan (2014) strategies are procedures and opportunities of an economic benefit that will be enjoyed by an entity in the short or long run if followed. This means that, this is achieved by satisfying the demand, efficient use of available resources in completing the planned tasks. The organization will fulfil this after taking into consideration the available resources like water, reservoirs and dams that lie idle without bringing in any revenue for the organization.

2.1 Water Levies

2.1.1Strength of water levies

2.1.1.1Monopoly power

According to Krolkowski (2014) the monopoly power of water utilities make the sole provider of water benefit. All revenue for water services is attributable to one body without dispute. All water resource payments are made directly to water bodies .The water bodies set the prices they will as

there is no competition in the industry as in cases of perfect competition where the pricing strategies of one firm affects the demand of the other's product as observed by Espallardo, (2009). In terms of the Zimbabwe National Water Authority Act chapter 20, 25 section 41 to 45, the all permit holders are supposed to pay for the water they consume. Therefore, it is mandatory and with the increase in population the revenue base is expanding. Water utilities for water supply consumers are monopolies and they are the ones that determine the returns they get from their revenue stream. The author is of the opinion that the nature of the parastatals of being monopolies make them able to gain the revenue they will as the pricing is in their hands.

Bakhshned(2014),however, argues that, when there is the nonexistence of competitors in the market, charge determination is not easy to ascertain. There is need for a guideline on the range of acceptable fees. The water authorities find it difficult to set prices as there are no determinants in the market. Most public companies, because of their goal of meeting the needs of low and high income earners, set prices that are not marginal. Curry(2010) concurs and say that without the guide of competitors, public companies may continue to exist but at a loss. This will automatically affect the service delivery hence productivity is haunted. The authors argue that monopoly power actually affects the pricing of water utilities as there is no influence from the market to set prices.

The researcher seeks to find out if monopoly power, of water utilities, influence them to charge high prices to get more revenue, or affect their pricing strategies leaving them to charge non cost efficient prices.

2.1.2 Weaknesses of water levies

2.1.2.1 poor service delivery

There are numerous factors that affect the capability and motivation of permit holders to pay for levies, one of them is dissatisfaction in the services received. Chishamhu et al (2009) observed that though there are agreements amongst farmers to pay levy that will contribute to the maintenance of sub catchments resources some farmers are not comfortable with the arrangement as they feel that the water authority is making an unjustified revenue collection. The author is of the opinion that poor service delivery has led to the customer's unwillingness to pay for water resources. Those farmers are also against payment of penalties resulting from river abuses charged by the authority according to Curry (2010). The farmers, as noted, are not willing to pay costs, and any costs related to water resources when there are poor service deliveries. Hence revenue from this source depends on the farmers that are in the catchment, or sub catchment. They argue that levies are paid on natural resources that are not safe for consumption and had seen many citizens being affected for example, cholera that affected the country in 2009 according to a UNICEF (2009).

From the consumer's perception, the authorities just get uncredited money from poor victims. Consumers exceeding 4300, had their lives taken in Zimbabwe as a result of the disease. The consumers complain that water obtained by permit holders is not even treated with chemicals, and there are no water maintaining plants. Atakpa and Ocheni (2012) suggest that consumers associate any tragedy, be it a disease, drought or any other failure factor to the incompetence of water utilities and hence willingness to pay for the resource is low. In a South African case, citizens when people were killed in the year 2000, exceeding 300 people UNICEF (2009). A protest was made because consumers were questioning the purpose of the body and the justification of paying.

Krolikowski(2014) in Sub-Saharan Africa research suggests that, over 323 million people still lack water and resources still idle.

The researcher seeks justification of the fact that levies in water authorities, are not paid due to poor service delivery or there are other factors contributing to the reluctance.

Information accessibility as noted by Chiri (2011) affect the revenue in that, those who are supposed to pay the levies are not well informed about the reasons and benefits of their payments to the overall service provision .The water authorities do not make awareness campaigns on the usefulness of the funds they obtain from levies making it difficult for consumers to pay. Nair (2010) explains the accessibility principle which he classifies into economic, physical and information .The principle of economic accessibility make water utilities vulnerable since the prices charged are meant to be affordable. Therefore this researcher is of the opinion that revenue generation is affected by the accessibility level of the water resource as consumers cannot pay for something that is not available to them. Michael et al, (2013) suggests that the outbreak of diseases is as a result of failure to comply with the law and seeking to find unsafe water as a remedy to the issue . Jiménez & A. Pérez-Foguet (2010) says a WHO&UNICEF,(2008) clarifies that , an estimation of 880 million of consumers are not able to acquire water that is deemed safe by health officials .He argues that these factors are a result of social and political factors affecting the operating country . As noted, the revenue from levies is affected by other factors such as political environment and influence prevailing in the country in which the water body operates.

The researcher seeks to find out if, factors, other than poor service delivery, are contributing to the low revenue generation.

2. 2Water Bottling

2.2.1Strength of bottled water

2.2.1.1Increasing demand

For different reasons the demand for bottled water is increasing at an increasing rate. Jakus et al (2009) suggests that, the demand for bottled water is improving at a faster rate despite the fact that it is more costly than tap water due to the fact that tap water is perceived as being contaminated, containing water borne diseases, bacteria and fungi. It can be noted, from the above, statement that bottled water consumption is increasing. Bakhshed (2014) also confirms the increase in bottled water consumption in his research of the consumption of Iran. He said that 90% of the residents in Iran are now consuming bottled water .Another factor that is leading to the increase in demand of the product in the industry is the constant water shortages due to poor service delivery by water utilities. Thus those venturing in the business are enjoying the fruits.

The researcher's investigation will be driven by the desire to know if consumption of bottled water is increasing, and is being profitable to bottling water companies.

2.2.1.2Health reasons

Michael et al,(2013) observed that despite the concerns by researchers of potential environmental and social concerns of the category that include energy required for transport and storage, the plastic used for bottling, the potential lack of purity due to chemicals leeching from the plastic, massive waste, and the cost relative to tap water, consumers want and continue to buy bottled

water. Thus those venturing in the business are enjoying the fruits. Bakhshned (2014) is of the opinion that another factor leading to an increase in bottled water consumption is misconception that it is always healthier. In his view, consumers are driven by the desire to drink safe water to buy bottled water. Bottled water is increasingly being consumed because it is convenient. There is a misconception that it is always healthier. Bottled water is increasingly being consumed because it is convenient.

The researcher desires to know, if the bottled water consumption, is genuinely increasing, the reasons behind, whether health reasons or shortages of tap water is affecting the level of consumption of the product.

2.2.2 Weaknesses of bottled water

2.2.2.1 Negative publicity

Bottled water is now a commodity that is under public scrutiny. Awareness of the disadvantages of bottled water is also affecting the consumption negatively. Consumers are being made aware of the risks associated with consumption of bottled water. Judkis (2008) in Kulin (2013) suggests that awareness of health effects of bottled water is leading to a decline in demand in of the commodity. The awarenesses are, from the author's perception contributing to a decline in consumption of the commodity. San Francisco had bottled water supplies prohibited in 2007. The reason behind that being, it was deemed an environmental hazard. Advocations for tap water are being carried out with educational seminars in the disadvantages of bottled water being exposed. The other reason is that the government seeks to save costs on government expenditure, incurred

by the government officials in the city ,and the costs ,in 2007 was estimated to be \$450 000. Therefore awarenesses are leading to reduced consumption of bottled water.

The researcher wishes to verify, on the negative publicity effects on revenue generation for water bottling companies.

2.2.2.2 Consumer cost benefit analysis

The bottled water industry is falling because of factors such as the cost of bottled water. The water costs an average of \$0,50 per 500mls in Zimbabwe according to www.zinwa.co.zw this means that an individual will need an average of \$2per day if they consume 2litres. For a complete month one will need \$60 on drinking water only without taking into account other consumptions for bathing, cooking etc. There is stiff competition in the bottled water industry .According to Goodson (2012) leading American suppliers Dasani, Evian and Spring which have gone to an extend of putting pictures highlighting the sources they obtain their product from .Therefore the industry is facing a stiff competition .

The researcher seeks to clarify if consumer cost benefit analysis, and competition in the bottled water industries are the causes for low income generation for water companies.

2.1.3 Water Supply

Strength of water supply

2.1.3.1 Increase in population

Water supply is a basic need and its demand is natural, and its consumption is increasing due to the population increase. According to the 2030 water resources group (2009) the world's

population is ever increasing and each year there is an increase of the water consumed by the citizens. Water supply institutions enjoy an increase in revenue from their resource as consumption is naturally increased by the increase in population as it is a basic commodity. According to a world bank report (World Bank, 2010) 1/3 of the total citizens of Africa and Asia reside in the urban areas. According to the research the town inhabitants is anticipated to be two times the current population in a period of 15 years. This speedy urbanization presents a chance for growth in the water supply sector. Essential expansion is expected to be achievable according to Madani (2010). There is an anticipation that the increase in population will increase the revenue generation to water bodies.

Water provision, on the perspective of individual rights, gives the public sector duties to make sure that human beings get enough, safe for consumption, reasonably priced water. According to Garrido (2009), this is done for the purpose of not discriminating consumers based on their income base. Water utilities are affected by the desire to make this resource affordable to all members of the community. Majority of the public companies take measures to supply to all citizens.

Another research by Verdegem and Bosma (2009) shows that an estimate of 65% of the world's humans will be inhabitants of towns and cities by the year 2020. That explains again that due to population increase there will be high demand for water supply. As a result of the increase in costs of maintenance, labour and distribution will also increase. There is therefore a need for water authorities to charge prices that will cater for the increase in costs of production when the population increases. Krowloski (2014) also highlighted that an increase in population will not only lead to high

demand of water, but also exploitation of the resources rising from shortage. The purposes for water utilization will increase affecting the capability of water suppliers to provide safe clean water. Instead of increasing revenue, the population growth will increase water supply costs expanding the funding gap.

The researcher aims to find out the effects of population increase on the total water supply revenue, whether it will help eradicate the funding gap, or it will lead increase the gap by increasing unavoidable costs.

2.1.3.2 Weaknesses of water supply

2.1.3.2.1 Water pricing

Atakpa and Ocheni (2012) postulates that the main problem for water authorities is due to poor methods implemented in valuation of the resource. Onyishi (1995) in Atakpa and Ocheni (2012) further suggests that this is as a result of poor pricing strategies adopted by water bodies. This indeed contributes to an increase in the funding gap when water pricing is weak. ([www.allienceforwaterefficiency.org\(09/09/2014,15:48\)](http://www.allienceforwaterefficiency.org(09/09/2014,15:48)) argues that water supply is a business just like other businesses. Hence just like in other businesses there is need for the revenue to be forecasted truthfully against recurrent expenditure and capital expenditure. The researcher seeks to verify the effects of poor pricing strategies on water bodies and its impact on the funding gap.

While the water suppliers may deem it necessary to set effective water charges, the state regulation may interfere and stop those considerations of the citizens .This may lead to water being

underpriced. On a research carried out by Olmstead Stavins (2009), a recommendation, was given that in order for growth, ability to provide clean water, completion of water projects, there is need for strategic pricing to be cost efficient. Funding gap, existing in the water sector, need strategic new water pricing systems. According to Leurig (2013) in a Colorado investigation, the prices charged for water is marginal costing. However this method is only effective if the cost price can be ascertained with accuracy. otherwise estimates leads to losses. The researcher seeks to be informed on the effects of poor pricing on the funding gap in water authorities.

In a research by Krolikowski (2014), without sufficient pricing structures growth is haunted. Olmstead and Stavins(2009)suggests that marginal costing best suits the water sector. This affects the funding gap of the water authorities. The price will be set after taking into account all costs relating to the water provision such as cost of chemicals, of distribution, capital costs on property plant and equipment, as in many countries water supply authorities fail to cater for the expenses. Atakpa and Ocheni (2012) suggest that revenue from water charges have to be adequate to meet resource requirements of the organization and cover all expenditure in relation to the service provision. The social consideration in the price setting is that consumers have to be able to afford the commodity. This makes proper pricing strategy hard to attain as it is difficult to cater for those three situations in setting the price Boag and Macdonald (2010). In most cases, one of the requirements is ignored therefore the effects depend on the consideration ignored. Money charged will play a paramount role in the achievement of clean water provision. When water is treated as an economic commodity, management of the resource, sanitation and better service delivery is attainable. The poor pricing will increase the funding gap on water resources.

Inherent to the nature of the service, factors such as pollution and constant rise in population leads to attainability of the cost recovery prices. A report in the 2030 resource management (2009) water, is in most countries undercharged and that leads to high costs of service delivery, leading to dissatisfactory service delivery .Therefore, Leurig (2013) suggests that the process of ascertaining the most suitable price is hard, about utilities ought to fight for efficient prices of water. A social responsibility consideration therefore suggests that avoidability of costs, through reduction methods such as conservation of water resources by means of awarenesses will reduce consumption of the resource. Another weakness of the water supply is that it is prone to illegal connections and reconnections. This will lead to revenue being low, the accounted for amounts will be lower than the expenses incurred in acquiring it increasing the funding gap. These will lead to a loss of resources whose expenses have been catered for. As a result revenue is affected. There is need to establish the intensity of water lost ,even due to leakages as suggested by Murinda (2011).

The researcher seeks to find out if water prices are the contributing factor to the decreasing revenue in water authorities. A research will be done also to clarify if illegal reconnections are the causes of decreasing revenue.

2.1.4 Borehole Drilling

2.1.4.1Strength of borehole drilling

2.1.4.1.1Increasing demand

According to Masekesa (2013), as a result of shortages in the water supply consumers now seek to have boreholes drilled in their areas as groundwater is most reliable. This will expand the

revenue base and reduce funding gap for borehole drilling companies. Borehole drilling in Zimbabwe has become a great income generating project. Citizens no longer rely on supply from water bodies only. Therefore boreholes are being sunk at public and private levels. Water from boreholes are perceived to be pure therefore, hence increasing the demand according to Zieubag(2013) . Hence, the project is supposed to close the funding gap for the water company. Another contributing factor to the rise in demand for boreholes is the shortage of tape water hence consumers preference on borehole water that is available throughout the day is increasing. Borehole water is exposed to less contamination hence the rise in demand, and reduces the funding gap.

According to Water Resources Development(2010),the failure to attain the sanitation target by the world sanitation project has led to an alternative of borehole drilling .They have reached a consensus that borehole water is much safer .The Millennium Development Goal had also made a goal that it will have reduced by half the number of consumers who would have water access problems .Therefore, the body has made an alternative of borehole drilling which is done in African countries including Zimbabwe which has seen most urban areas having public boreholes to substitute for tape water. The change in aid effectiveness has led to borehole construction that aims to provide about 85% of drinking water by the year 2020.this expansion will lead to improved revenue generation hence improving the funding gap.

Taurus (2010), argues that despite the rise in demand for borehole political factors are leading to slow borehole drilling as political interference usually leads to surrendering of the non-

governmental organizations. This leads to low revenue generation, expanding the funding gap. A research conclusion by Zieubag (2013) says regardless of the political intervention, change is just slow due to other factors such as changes in prices of focasted projects.

The researcher seeks to find out the factors contributing to revenue that is not pleasing despite the rising demand. She is also eager to know other factors that lead to low income generations in the borehole drilling sector.

2.1.4.2 Weaknesses of borehole drilling

2.1.4.2.1 Lack of groundwater resources

In a research carried out by Bakhshed (2014), the water utilization is not increasing as anticipated a rate that is favorable due to constrains of underground sources. Though the population is increasing, there are factors that are limiting the implementation and such as economic hardships. According to Ruiz-Villaverde (2010) the costs incurred in drilling a borehole varies with the type of the borehole, the main used techniques are down the hole, the cable tool and also the mud rotary. The drilling process can be mechanical or technical. The site of the borehole has to be strategic hence the need for machinery that detect the availability of water resources on a targeted area. Cleaning of the resources have to be done and proper maintenance and services. Due to the complexity of the project, there is need for adequate capital to maintain and acquire the necessary equipment .Curry (2010), borehole drilling companies face challenges of having inadequate machinery. This will reduce the base of revenue generation.

However Musyoka (2011) argues that the challenge being faced by borehole drilling companies is not merely attributable to lack of resources, but poor planning of groundwater equipment. Depending on the type of drilling to be done, there is need to plan the resources that have to be used so that avoidable costs are not incurred. Garrido (2009) advocates that despite the rise in demand, unemployment rate is affecting the water industry as people are failing to pay for the basic commodity in a study carried out in Spain. He suggests that businesses such as borehole drilling are slow because consumers are struggling due to the economic turndown.

Husseini and Dariush (2011) also argue that despite the increase in demand for boreholes, competition in the sector of existing suppliers have an impact on the overall performance of the business. The existing firms drilling boreholes' pricing policies, economies of scale affect new firms in the industry. Due to the complexity of the business, the capital requirement and maintenance funds are difficult to acquire as Martin, *et al*, (2009) postulates that public companies have funding problems as they are controlled by the government. Therefore, that perception alone can affect the demand for boreholes drilled by government owned companies.

The researcher seeks to find out if, inadequacy of groundwater is a limiting factor to the revenue generation from this revenue stream.

2.2. Aquaculture

According to Utete, B (2013), aquaculture is the production of animals and plants that are aquatic. This type of farming which only requires a place that has water resources, is the fastest food production method and generates faster cash than the land farming. Ndebele et al (2011) in

Utete,B (2013), explains that fish farming in Zimbabwe mainly concentrate on fingerlings. These are produced by way of caging until they reach the desired size. In Zimbabwe, aquaculture has been concentrating on fish farming and crocodile farming as observed by Utete and Muposhi, (2012) in Utete,B (2013). Musukumidzwa ,S(2014),defines aquaculture as the breeding of water organisms ,that may be in the form of aqua fishing ,which consists of the nurturing process, breeding enhancement ,frequent stocking ,feeding and safeguarding from predators.

2.2.1Strength of aquaculture

2.2.1.1Availability of idle resources

Tongoona, (2014), observed that there are many water resources that are being underutilized especially in the communal areas. Mawire (2014) postulates that there is need to advance the utilization of natural water resources in Zimbabwe. In order to make use of the idle resources, there is need to come up with a strategy that will generate revenue. Water resources especially in communal areas are being non effective as there is no revenue in terms of farming, consumption, and levies generated from the resources. Aquaculture can be implemented to cater for the revenue gap, this will also help fight poverty in Zimbabwe.

2.2.1.2Unexploited industry

Dingwa ,M(2012),observed that the fish industry in Zimbabwe is vast as the only commercial aquaculture business is currently carried out is at Lake Harvest in Kariba which is the parent company for Elaine Pvt LTD .The Zimbabwean supplies are starved due to the fact that most

suppliers in the market do not have the legal right to supply fish. They are poachers on the water resources, therefore their supplies are dependent on chance .Other water resources are overfished for example Lake Mutirikwi in Masvingo. According to Musukumidzwa (2014), the aquaculture industry is an unexploited industry hence those who are willing can venture into the potential market .another contributing factor to the great market in Zimbabwe is that the country is a landlocked country ,therefore fisheries are few ,increasing the demand for the product according to www.ziminvestors.com(08/09/2014,12:58). There is a potential chance of gaining favourable cashflows from this investment .In a Spain research a conclusion was drawn that aquaculture is growing and the market is filled with almost 50% fish form aquaculture according to (www.uicnmed.org 09/09/2014,13:57) .

2.2.1.3 Less capital intensive

According to Kerala University (2012), aqua fishing has an advantage of using available idle resources thereby reducing the capital needed to start a business. Some of the required resources are land which is state property, therefore if done by a public company there is no cost of land. It also requires water which is a natural resource .The returns on investment are high due to the fact that they can be fed with naturally resources such as weeds .In case of minimal capital ,the fish can grow naturally .Therefore ornamental fish can be bred at a low costs depending on the scale of production. Ajith Kumar *et al.* (2010) in Kerala university (2012) suggests that, for their project in Kerala, they get an average of 145 00 per year on natural resource production. (practicalaction@practicalaction.org.uk) agrees that resources for growing aqua fish are cheap depending on the capacity and species of fish. According to Garreln(2014) in Bangladesh farmers

use simple cages made of bamboo poles that they cover with net wire .These cages that need only 12poles are very affordable. For fish feeds they use left overs from the food they eat, snails and weed. This cages that accommodate 300 fish are placed in the rivers for the survival of the fish but that depends on the type of the fish.

The researcher seeks to find out if aquaculture is applicable on the basis of natural resources utilization on a large commercial base.

2.2.2Weaknesses

2.2.2.1Business risk

According to Nielsen (2014), it is very important to carry out a price competitive analysis when it comes to aquaculture. There is need to gather sufficient information in regard to production costs and information regarding to life cycle of the product. A survey by Recanati et al (2013) advocates that if there is insufficient information that relates to the water behavior aquaculture is a risky business .for the survival of the business there is need for assurance that adequate water will be available throughout the life of the fish as their life is dependent on water.

Nielsen (2014) suggests that there is need for investigation of food quantity requirements, preservation methods, and transport for distribution for both internal and external market. According to Windmar, (2013) there is need to keep sufficient stock. Conducive infrastructure is of paramount importance because if the fish are overcrowded they will die and the infrastructure

has to provide favourable temperatures for the sustainability of the fish. There is also need for regular repair and maintenance to ensure that the fish are well kept as the business has inherent risk due to the delicacy of the products. According to a Kerala University research (2012) when the marketing facilities are weak the business is at risk. There is need for ready market when the product is harvested due to the fact that it is highly perishable .Fish handling and transportation has to be effectively done.

The products are most likely to cause water contamination as observed by Verdegem and Bosma (2009). In the case where the cages are placed in water ,the fertilizers ,food and chemicals for health maintainance are most likely to disturb the natural water cycle .this may lead to lowrainfall and consumption of contaminated water .(www.uicnmed.org 09/09/2014,13:57).suggests that the utilization of exotic fish seeds as practiced in aquaculture can bring in more risk such as diseases associated with the product . Nielsen(2014) suggests that other costs attributable to aquaculture are ,costs of human resource training ,costs of packing the end product as by its nature cannot be distribute without packaging ,power expenses and analysis of the existing market.

Example of an aquaculture company

2.2.3Aquaculture At Elanne (Pvt.) Ltd.

Elanne is a Zimbabwean company that is currently practicing aquaculture. At the present, it is producing up to 480 tons on a yearly basis .its objective is to reach 1200 tons. The firm has the capacity to produce 1200-1600 tons every year, but this relies upon the type of the fish. Elanne has

a freezing capacity of 1600 tons per annum. Presently, Elaine is working towards meeting the Zimbabwean demand, therefore is striving to increase the frozen fillets.

Elanne (pvt.Ltd)

Table 2.1 infrastructure and resource requirement

Name Of Resource	Quantity Used
Pond	15*40m ,0.5m*1m
Product life cycle	8 months -9months
Carrying capacity of one pond	1200 tilapias
Drainage period	25 days
Product mean collection	1000 tilapias
storage area	40 cubic metres

Source (Elainne Pvt Ltd 2013)

Elainne has 6 ponds that produce the fish with the requirements above. Each pond has carrying capacity of 1200 tilapias .It takes an average of 25 days to drain and harvest the fish. Averagely they get 1000 products from each pond. There is less competition in the industry hence Elaine is enjoying foreign markets of an average of 900 tons a year. According to Windmar,(2013) for a viable production of fish in Zimbabwe there is need for effective management ,that will make sure that the fish do not fall below the reorder level. When conditions like drought take place without

preparation, the whole stock is lost as in the case of Elaine Pvt Ltd where fish died because the water had fallen beyond the required level of water.

2.3public Private Partnerships (Ppps)

The European green book in Ravic and Ravenovic (2011) defines a public private partnership as, a method of cooperation that is done between the public and private sector with the sole purpose of making the process of construction, funding of projects, maintenance of certain existing structures .It further states that the main purpose of engaging in public private partnerships is ,in a way a method of enhancing economic growth ,improving the infrastructure and elevating service delivery. Yuan(2009) states that public private partnerships rise when a contractual obligation is created between the private and public sector with the intention of developing infrastructure. Canadian Council (2001) in Yuan (2009), explains the cooperative that takes place between the private and public sector as a union that is based on specialty in terms of knowledge for the given tasks which is crucial as it helps in cost reduction, resource allocation much reliable and lessens risks.

2.3.1Strength of PPPs

2.3.1.1Sharing of financial risk

Khanom(2010)views PPPs as an instrument that lessens the governmental financial burden. Government revenue mainly comes from tax collection .Due to tax evasion by entities, the state is unable to fund for all the parastatal developments .Therefore for the development of these projects

inclusion of the private sector will relieve the state of the financial requirements, depending on the financial arrangement. According to Hoon Kwak et al (2009) when a PPP is watertight objectivity is achieved. This is especially when the government makes an arrangement with the sector to build, operate and transfer, where the government will get a complete infrastructure after the agreed term of operation. In other terms of PPPs, the private and public sector endures the finance burden. As explained by Collin (1998) in Khanom(2010) financial risk is shared by the partners together with the economic benefits arising from the operations.

2.3.1.2 Efficiency in resource maintenance

According to Dhéret(2012), the PPPs are more efficient in that the private partners, in the European research maintain and repair their water facilities. As a result of the nature of the private sector to provide competitive products, they employ operators who are will be available to specifically watch on the performance. According to, Chiri (2011), shortage of sufficient technicians and engineers to haunt productivity in the public water supply sector. Communication between consumers and suppliers is also improved since the private sector is, as in the European case advanced in the communication skills. They do have websites, which are faster hence response time is improved. The private sector pipelines are insured, therefore if they accidentally burst, they are replaced.

The human resource is another major aspect that affect the overall performance of an organization. Dhéret (2012) suggests that, the private sector provide competitive employee benefits. This attracts competitive labour hence the projects will be handled by motivated

personnel .The lack of incentives in the totally affects the service delivery Junwook. et al (2012) is of the view that employee remuneration has an impact on the overall personnel behavior.

2.3.2 Weaknesses of PPPs

2.3.2.1 Risk of financial disaster

Burger (2009) PPPs are at risk of financial disaster. This is highly dependent on the economic conditions of the country. If a change in financial activities due to factors such as inflation and a change in exchange rates occurs the partnership is likely to suffer a loss, though the risk cannot be measured with reliability. Most of PPPs projects are funded through borrowing from banks since their projects are intensively capital demanding. According to Burger (2009), financing institutions are now cautious when it comes to extending their borrowings to PPPs due to their complexity. Boag and Macdonald (2010) concur to the effects of decline in the accessibility of borrowings and further explain that in most cases, the private partner, usually quits if the conditions of the agreement changes, leaving the public to suffer with the existence of incomplete structures. Therefore when costs increase due to economic changes affect the funding tool in place completion of the project is automatically brought to a halt. As observed by Burger (2009), most European PPPs have been grounded by the fact that their borrowings could not be extended. Anbarci,(2009) suggests that a continuous evaluation on the value for money must be sustained to ensure continuity in PPP projects. The researcher seeks to find out if PPPs are at risk of financial disaster.

Another financial disaster contributing factor that affects the efficiency of PPPs, is the decrease in the request of the commodity being generated by the project. Krolkowski (2014) stipulates that when proceeds are low, the feasibility of the project is affected .Therefore if the agreement is such

that the continuation of the project is funded by profits, the project is highly affected. Ravic and Ravenovic (2011) went on to suggest that fluctuations in the rate of exchange, when the private partner has a borrowing contract that is not protected against possible loss, from another country will haunt the viability of the private partner. If the raw materials used for construction are highly imported then there is a potential of staggering progress when exchange rates are not stable.

However, Dheret et al (2012) is of the opinion that, the effects only depend on the stage of completion of the project .when the project is actually work in progress, with an existing borrowing plan ,the agreement will help the erection of the infrastructure but ,only to the extend of the borrowing capability.

2.3.2.2timely decision making

In most cases PPP decisions are made, contracts signed on a national stage .There is a long chain of command in the reporting structure as observed by Hoon Kwak et al (2009).This leads to minimal production as a result of dependency on the superior powers to take their timely suggestions .Yuan (2009), further explains that, timely decisions in PPP, raise the transparency risks. Decisions have to be made and passed from each level of production, Dheret et al (2012). Therefore that affects the flexibility of PPPs.

Burger (2009) advocates that, pleasing results are affected by lack of common purpose. The longer the chain in any organization's decision making, the lower the common goal. This will delay the

organization in achieving the goal of eradicating the funding gap. He suggests that legal frameworks must be out in place to avoid unnecessary delays in the production level. Ravic and Ravenovic (2011) explains that in Serbia, productivity has been affected highly, in terms of PPPs due to the fact that they do not have a binding legal framework.

2.4 Challenges That Are Likely To Be Faced In Implementing New Revenue Sources

2.4.1 Competition;

Porter's Five Forces Analysis

Michael Porter has a theory of challenges that an entity can face in strategy implementation. According to Hasan et al (2014), the various experiences are faced when entering a new market, the pressure in the sector. The implications of the actions of those suppliers in the industry who already provide the same product.

2.4.1.1 Threat Of Potential Entry

In the business world there is always a threat that well established firms may make changes and introduce products that make entrance of new supplier unachievable .The ways of distributing the product is one of the tools that can be a hindrance to entrance of a new product according to Mien(2012). The cost of entering the aqua business seems less costly therefore there is a probability of many firms entering that market when it seems affordable as postulated by www.webcraler.com (20/09/2014.10:56). As postulated by Bakhshinejad (2014), the financial commitment needed to start the new product production can also act as a barrier .Other factors that have an impact is the legal requirements .A product can be denied entrance by legal statutes due

to factors such as health reasons and its impact on the environment according to www.mindtools.com (accessed on 19/09/2012.13:45).However Manktelow and Calson(2012) argue that a firm can introduce barriers to entry to protect itself from competitors. The researcher would like to find out the effects of potential entries to the organization.

2.4.1.2Threat Of Substitutes

In a way to get a market share other firms can introduce substitutes into the market that will totally reduce the value of the product to consumer.www.mindtools.com (accessed on 19/09/2012.13:45).

As in the case of aqua fish ,suppliers can produce other white meat that is less costly thereby reducing its validity as they will still be gaining protein from the new product . Martel(2014) observed in East Africa, the aqua industry is facing challenge from imports of foreign different species of fish that is cheaper .

2.4.1.3Bargaining Power Of Suppliers

Riley(2012) suggests that, suppliers have a great impact on the product , if they choose to increase the price of the product . This can affect the production cost .therefore to avoid loss the producers of the product will have to increase the price of the product .Depending on the nature of the product ,it can loose market if it becomes expensive .Loss is usually experienced when they are substitutes offered on the market . The new revenue generation project might be affected by changes in prices of raw products from suppliers.

2.4.1.4 Buyer's Bargaining Power

According to Porter, buyers are and should be treated as threats as their buying behavior affects the overall profitability of a firm. This however, as argued by Hassan et al (2014) is highly dependent on the nature of the product. As in his research of Coca-Cola products, he says that the regular changing of a single buyer in products has an immaterial impact on sales. He further explains that the implications of customer changes will be material if the change is done by a substantial fraction of the consumers. The PPP can be affected by the prices charged on the end product especially when the conditions are such that the sustenance is reliant on profits made on the product according to www.mindtools.com (accessed on 19/09/2012.13:45).

2.4.1.5 Rivalry Of Competitors

Delgado-Ballester (2009) said the competition level in the industry will determine the challenges faced by the firm. Manktelow and Calson (2012) state that if the industry in which the new firm wants to venture into has stiff competition. Conditions that may lead to competitive rivalry are the investment capital needed for the project to commence. This will make it difficult for the organization to exit the market even after realizing that there are losses being incurred. Water projects need a lot of capital therefore if rivalry of competitors arise it will put the business to loss. There is need, before investment to evaluate the industry in which organization wishes to venture into (www.learnmarketing.net). Its chance for growth is low. In most cases this will have an impact on the prices and pricing methods acquired by the firm, the product developments and distribution channels. Advertising is also influenced by the rivalry in the industry. The probability that the fish business will blossom is hindered by the fact that the existing producers and aspiring,

when they enter the market may make strategies like penetration pricing that will lure consumers to buy their products. The researcher wants to know if the product will survive competition.

2.4.2 Expertise to handle the project

In a report by the auditor general, Chiri(2011) ,she pointed out that project completions were highly affected by lack of required experts to complete the available tasks .Therefore for both aquaculture and PPPs to be successful there is need for an effective labour base. According to Windmar,(2013), training to the employees is also crucial as well as adequate supply of fish, clean material and proper packaging. For a viable project, there is also need for an understanding of the economic social, political and geographical profile of a state.

However, Husseini and Dariushi (2011), argues that the characteristics of the model makes it a theory that cannot be relied on. The fundamental concepts of the model have a complex relationship that cannot be verified .The powers of the stated components cannot be measured reliably.

2.5 Best Practice That Will Help Reduce The Gap

According to (www.governing.com) ,when an environment is such that every dollar counts and is bound to bring a difference there is need to carefully study and partake in all favourable investments with less risks. Madani (2010) is of the opinion that managing water resources systems by its nature has great limitations since it is a natural resource. The water authorities can therefore apply the game theory to ensure that they get a win win result from their activities .This theory can identify and help the revenue enhancement from the existing sources in an attempt to alleviate the revenue gap.

Bearing in mind the increase in demand for fish, Crawford (2013), there is also need to take into consideration the risks associated with the business. Thurnell et al (2009) advocates that data concerning water resource is not easy to gather, it is risky to engage in a business that is highly dependent on water. Factors such as food, resource availability and implications on the environment have to be taken into consideration. Also to be taken into account is the availability of conducive infrastructure. There is also risk in partaking in a PPP when economic, political and social environment is not stable as suggested by Ravic and Ravenovic (2011). The researcher seeks to investigate the best practice for the organization to boost its revenue.

Conclusion

This shaded more light on the revenue sources that are offered by water utilities. The research also put to light the possibilities of investing through aquaculture and public private partnerships. The researcher can therefore safely conclude that new revenue sources will bring more revenue positive revenue, and help eradicate the funding gap.

CHAPTER3 METHODOLOGY

3.0 Introduction

In this chapter the researcher sought a systematic manner to facilitate answers to the research objectives which were influenced by the extent of reliability of approaches used as suggested by Saunders et al (2007). This chapter, explain how the data collection was undertaken, the resources utilized to gather data, the techniques applied in the research to come up with a reliable sample and data analysis techniques adopted by the researcher.

3.1 Research Design

A strategy of conducting the desired investigation to come up with solutions to a problem, according to Cooper and Schindler (2003), is a research design. The researcher sought to come up with answers to the research questions highlighted in the first chapter concerning the revenue sources at ZINWA Sanyati. Therefore, an approach was identified. The researcher used qualitative and quantitative methods in the data collection. As suggested by VanderStroep & Johnson, (2010) qualitative data helped the researcher obtain crucial data from ZINWA employees that could not be put in numerical terms.

The relevance of qualitative research in this study is that there were questions that the research asked ZINWA respondents that were based on personal opinion and could not be expressed in numerical terms, for example the researcher wanted to know the personal involved in strategic planning and that cannot be expressed in numerical terms. Quantitative will help the researcher analyse numerical data.

3.1.1 Descriptive research

In an effort to get accurate descriptions on the ground at ZINWA concerning revenue behavior challenges and funding sources, the researcher utilized the descriptive approach. This approach seeks to reveal a truthful report on proceedings, conditions and individuals as explained by Robson (2002). Saunders *et al* (2009) is of the opinion that this approach will give a direction when an investigation aims to know how, why, what and when they engage in descriptive.

The researcher wanted to find out how, revenue was generated at ZINWA, how it was used, how the organization strategize on new sources. She was also concerned with information in regard to the funding policies of the organization. The use of a descriptive approach helped the researcher collect opinions on what can be done to increase the revenue base. The researcher was also able to obtain views of the personnel in regard to the suggested methods of increasing revenue.

3.2.1 Population and sampling

The researcher's aim was to get data from the top management as they are the ones that know the funding gaps problems in their organization. Also targeted where the accounts personnel as they are well informed in terms of financial position of the organization. To complete this study a population of 24 employees was selected. The reason for the sample selection was that the accounts personnel are the ones who understand the financial position of a ZINWA as they are the preparers of the financial statements, the management is the decision makers, the human resources are always alert at ZINWA about the wellbeing of employees therefore know the effects on employee benefits and the causes of the effects.

3.2.2 Sample size

The governing regulation of thumb explained in Saunders (2007), points out that a portion of 30% from the total population should be the minimum, utilized in a study where the total components in the population is not greater than 500. The table below shows the sample size.

Table 3.1 sample size

Department	Size Of Sample	Total Population	% Of Sample Size
Management	4	7	57
Stores	6	9	66
Finance	11	15	73
Human resources	3	8	37
Total	24	34	70%

The table above shows that 70% of the population ,consisting of 4 top managers,6 stores,17 finance and 3 human resources personnel was used to carry out the study .The sample was drawn out of a population of ,9,35,8 respectively. Saunders et al suggested that a sample must be 50% or more of the population.

3.2.5 Sampling Techniques

In carrying out this study ,the researcher adopted probability and non-probability methods .For probability sampling the researcher used stratified random sampling .The researcher carefully

selected respondents depending on their field of operation with an established number from management, finance, stores and human resources. The engagement of the researcher in this sampling technique was based on the fact that the sample had representatives of the population that was proportionate.

3.2.6 Judgmental Sampling

For non-probability, the researcher carried out judgmental sampling. (Saunders et al 2009) suggests that this helps in accomplishing objectives since the researcher uses her own sample based on her professional judgment. Judgmental sampling was adopted based on its benefit to the researcher to choose her respondents by evaluating their capability of understanding the investigations being carried out .It was applicable since the sample size was small and only 30 candidates.

3.3 Data Sources

For the purpose of this research the researcher adopted primary and secondary data.

3.3.1 Primary Data

The researcher directly acquired responses from respondents on a first hand basis and this was defined by Greener, (2008) as primary data .For the data collection process questionnaires were filled by ZINWA personnel and interviews were conducted.

As advocated by Neville, (2007) primary sources present information that is currently on the ground. The researcher wanted to know the current revenue bases and challenges being currently faced at ZINWA. Hence the use for primary data helped in the achievement of the objective of the study.

3.3.2 Secondary Data

VanderStroep & Johnson (2010) suggests that data that has been already gathered and availed for use is secondary data .For this research the data was obtained from revenue returns at the station, minutes available for meetings conducted and books relevant to the revenue crisis and funding gap at ZINWA.

Secondary data was readily available. Due to the geographical location of ZINWA Sanyati Stations, it was costly to visit all the stations hence secondary data available at the catchment office reduced the costs and time taken to obtain the required data.

3.4 Research instruments

Denscombe (2004) explains that there are necessary tools that are relevant in the collection of data for the purpose of accomplishing a research and these are research instruments .They can be questionnaires or interviews.

3.4.1 Questionnaires

A questionnaire is a document that contains questions that the respondents have to respond to and contain choices of answers (Saunders *et al*, 2009).These can be open-ended or closed ended. They provided fundamental opinions on the ZINWA funding status .The researcher carried out a personal distribution and collection of the questionnaires.The researcher had a personal distribution to guarantee that the questionnaires reach the targeted population. ZINWA has many employees but the researcher wanted to make sure that those who answer have knowledge of the funding gap at ZINWA and ways in which revenue is acquired. For the objective of the study to be attained, the researcher also used questionnaires because they guided the responses on the investigation so that they revealed only relevant information. The questionnaires had closed ended

questions. These consume less time to both the researcher and the responses. The researcher will not have to spend a lot of time gathering data.

3.4.2 Likert scale

Losby *et al* (2012) describes a likert scale as a weighing machine that candidates will have an option to choose from, opinions that suit them. It is mainly used to determine the magnitude of the opinion towards the questions. This presents an easily understandable research. The design is not difficult to make and responses are easy to analyse. This system is also not costly. The magnitude of the individual's behavior can be determined by the option they choose.

Table 3.2. The likert scale

Strongly disagree	disagree	uncertain	agree	Strongly Agree

The table above shows the opinions given to the respondents from which he /she has to choose an opinion from.

The researcher wanted to get explanations that could not be expressed on the limited spaces on the questionnaires. The researcher wanted to know also the needs and desires of the responses that needed clarification. Therefore, the researcher was able to obtain clarification through face to face interviews with the respondents. As observed by Saunders *et al* (2009) persistence inquiries were used to get information on sensitive issues especially from management.

3.4.3Interviews

Kvale (2011) is of the opinion that interviews are as dialogues that are administered by the researcher .Saunders et al (2009) concurs to that view and further explains that the number of people in an interview is not restricted .The researcher made use of semi structured interviews which are classified as non standard by Blumberg et al (2011).

3.5Data analysis Presentation

The researcher brought together obtained data, and expressed it into meaningful information. The data was presented per single element using tools such as graphs and pie charts were used as acknowledged by Saunders *et al* (2009) .Tables were used to present data which was further illustrated through pie charts, bar graphs and bar charts. Also the mode, which is a measure of spread was used in data analysis. For non numerical evidence, text was utilized to present the findings. For analysis qualitative data was organized to bring out meaningful results. In an explanation given by Kvale (2009), data analysis involves arranging and configuring raw facts so that explanations on the behavior of variables can be made.

3.5.1.1 validity

Information is only valid to the researcher when it is appropriate and has influence towards decision making and overall judgement of the research as postulated on www.sage.pub.com. For the purpose of this research, the researcher, in an attempt to make the data valid, performed the task by ensuring that appropriate questions were presented. For validity, Saunders et al (2009)

Is of the opinion that a response rate must 50% or more to produce valid results. The questions were asked to significant individuals using questionnaires and interviews. According to Punch(2008), validity is the ability of a tool to measure.

3.5.1.2 Reliability

This is a tool to measure the authenticity of information. To ensure reliability, the sample chosen consisted of people who are always alert of the financial position of the company, namely management, accounts staff, stores staff and human resources management. A pretest to ensure reliability was carried out before the data collection process.

3.6 Conclusion

The methodology utilized by the researcher was highlighted. Explained in the chapter is the sampling technique, research instruments, research design the design of research adopted, the reliability of the data that will be presented in the following chapter.

CHAPTER4

4.0 Introduction

In this chapter the researcher seeks to make a presentation based on the data gathered using the methodology outlined in the former chapter.

4.1 rate of response

Table 4.1 Responses rate

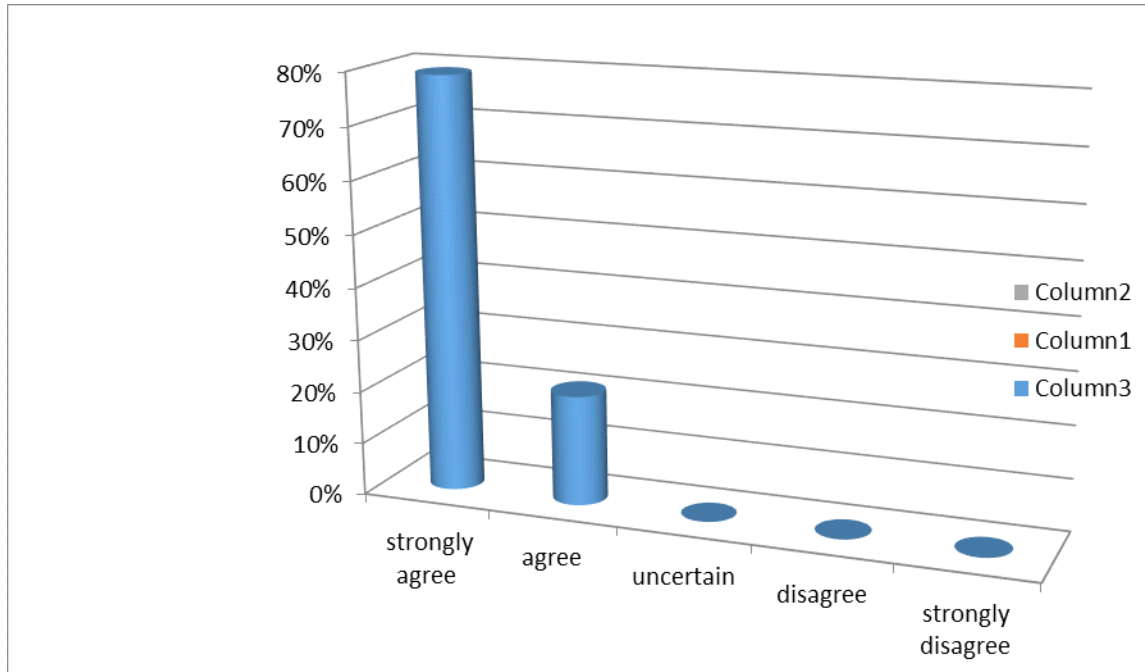
Research tool	Sample	Response	Response rate
Questionnaires	24	19	79%

For the purpose of gathering information, the researcher had considered a sample with a size of 24 respondents. A response rate of $(19/24)79\%$ was attained. The response rate is viable as it more than 3 quarters of the sample. According to Punch (2008) a response rate of the sample to be viable it must be at least 50%.

4.2 Findings and discussion

4.2 .1Revenue generated at ZINWA is failing to cater for both operating and capital expenditure as budgeted for.

Fig 4.1repondents' perception on the revenue generation at ZINWA

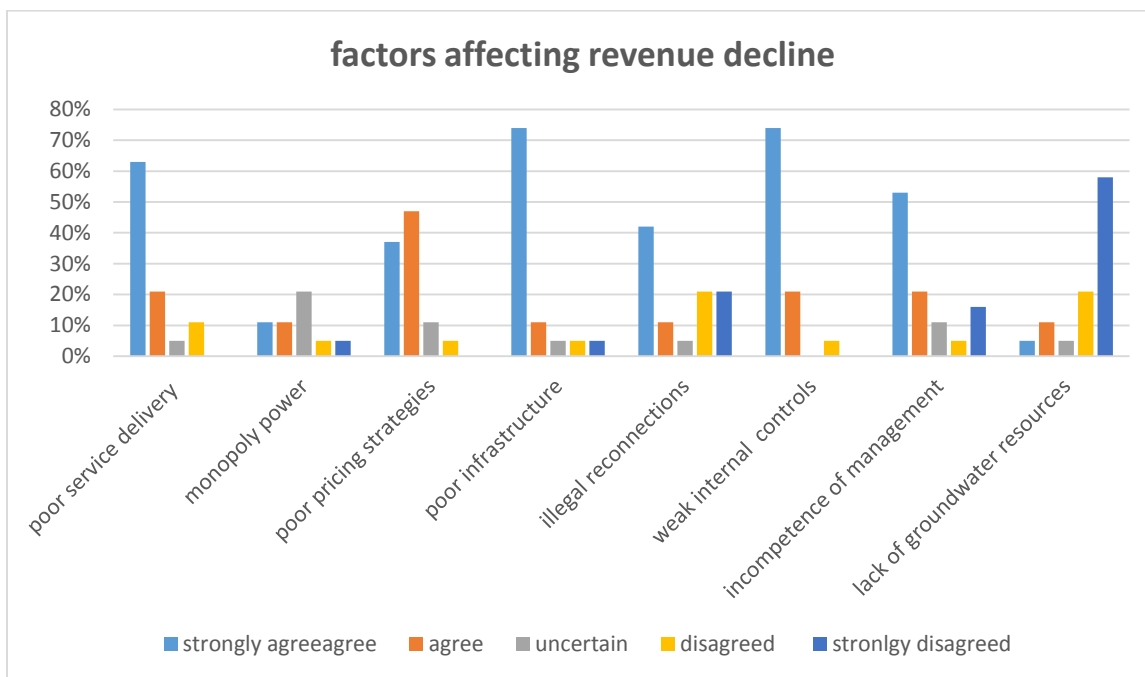


Of the responses (4/19) (21%) agreed, (15/19)79% strongly agreed (0/19)0% were uncertain, (0/19)0% disagreed, and (0/19)0% strongly disagreed. In summary, 100% agreed,0%were uncertain,0% disagreed. The mode was respondents is 79%, which is strongly agree. The researcher wanted to find out if revenue was failing to cater for major expenditure at ZINWA. Therefore it means that revenue generation at ZINWA is failing to cater for both operating and capital expenditure as budgeted. 100% of the respondents agree to the point that ZINWA is failing to cater for both operating and capital expenditure. Indeed there is a funding gap. None of the respondents disagree that revenue generation at ZINWA is weak. The mode concurs with Kasukuwere (2014), stated that most of the water projects on average, remain 60% complete for example the Tokwe –Mkosi dam which is currently 63% complete, most of ZINWA’s dams have

been contaminated, domestic taps are constantly dry, rising towns need new sources of water, some farmers are operating without water permits and industries are in need of water supply. The purpose of the research was fulfilled and the responses gave their opinion on the existence of revenue failure.

4.2.2 the factors below have contributed to the decrease in the revenue generation

Fig4.2 factors affecting revenue



4.2.2.i) poor service delivery’s contribution to revenue decrease

From the research undertaken by the researcher, 63% (12/19) strongly agreed, 21% (4/19) agreed, 5% (1/19) is uncertain, 11% (2/19) disagreed and 0% strongly disagreed. In total 84% of the respondents view poor service delivery as a contributing factor to the decline in revenue. However 16% argue, that it is not as a result of poor service delivery. The researcher wanted to know if poor

service delivery was affecting revenue generation at ZINWA. The mode, 63% shows that respondents strongly agreed that poor service delivery is affecting revenue and this agrees with Atakpa and Ocheni (2012), who suggests that consumers associate any tragedy, be it a disease, drought or any other failure factor to the incompetence of water utilities and hence willingness to pay for the resource is low when service delivery is not satisfactory. The objective of the researcher was justified.

ii) monopoly power's contribution to revenue decrease

(2/19)11% of the respondents strongly agreed,(2/19)11% agreed ,(4/19)21% were uncertain, (1/19)5% disagreed and (10/19)53% strongly agreed. Therefore 22% agreed, 21% were uncertain whilst 58% disagreed .The researcher wanted to know if the monopoly power was a major cause to the revenue decrease. The mode, 53% showed that 53% of the population strongly disagreed. They are in one accord with Krolikowski (2014) who stipulated that the monopoly power of water utilities make the sole provider of water benefit. All revenue for water services is attributable to one body without dispute. All water resource payments are made directly to water bodies. The water bodies set the prices as they desire as there is no competition in the industry as in cases of perfect competition where the pricing strategies of one firm affects the demand of the other's product as observed by Espallardo, (2009). The researcher's motive was justified.

iii) poor pricing strategies

From the findings (7/19)37% strongly agreed,(9/19)47%,agreed,(2/19)11%uncertain , (1/19)5%disagreed,0% strongly disagreed. As highlighted by the data above 84% respondents do agree that poor strategies in the pricing of services are leading to a revenue disaster whilst 16% are of the opinion that it is not the contributing factor. Therefore from the results it can be noted

that pricing of services affect revenue generation. In a research by Krolikowski (2014),he noted that without sufficient pricing structures growth is haunted Olmstead and Stavins (2009) suggests that marginal costing best suits the water sector. The price will be set after taking into account all costs relating to the water provision such as cost of chemicals, of distribution, capital costs on property plant and equipment, as in many countries water supply authorities fail to cater for the expenses.

iv) poor infrastructure

From the data gathered,(14/19)74%strongly agreed,(2/19)11% agreed ,(1/19)5% were uncertain,(1/19)5% disagreed and (1/19)5%strongly disagreed. Therefore 85% of the respondents view poor infrastructure as a cause of revenue decline. 5% are not sure whether or not it is a reason for the decline and 10% disagreed. The researcher wanted to know if poor infrastructure was a contributing factor to revenue decline at ZINWA. The mode, 74% strongly agreed meaning that poor infrastructure was indeed a contributing factor to revenue decline. Therefore, it is evident that the respondents view poor infrastructure as a contributing factor to revenue decline.

v) illegal reconnections

Of the respondents (8/19)42% strongly agreed,(2/19)11%agreed,9/19)5% were uncertain, (4/19)21% disagreed and (4/19)21% strongly disagreed. It was noted that a total of 53% agreed and,5% were uncertain and 42% disagreed. The researcher wanted to find out if illegal reconnections were a contributing factor to revenue decline. From the data collected it was noticed that 42% which is the mode, were of the view that illegal reconnections have an impact to the ultimate revenue generation. Based on the information it can be noted that illegal reconnections

leads to revenue decline. As noted by Murinda (2011), another weakness of the water supply is that it is prone to illegal connections and reconnections. These will lead to a loss of resources whose expenses have been catered for. As a result revenue is affected. There is need to establish the intensity of water lost, even due to leakages.

vi) weak internal controls

Of the respondents (14/19)74% strongly agreed,(4/19)21% agreed,(0/19)0% were uncertain, (1/19)5% ,disagreed and (0/19)0% strongly disagreed. Therefore 95% agreed whilst 5% disagreed that weak internal controls are a contributing factor to revenue decline whilst 5% do not agree. The researcher's aim was to find out if weak internal controls was the contributing factor to revenue decrease. It can be noted, from the results that the weakness of internal controls have a bearing on the overall revenue generation of ZINWA justifying the researcher's motive.

vii) Incompetence of management

Results from this research were, (10/19)53% strongly agreed, (4/19)21% agreed,(2/19)11% disagreed, (1/19)5% strongly disagreed. In aggregate, 74% agreed whilst 16% disagreed. The researcher wanted to know if incompetence of management was a contributing factor to revenue decline. The mode 53% show that majority of the respondents are of the opinion that incompetence of management contributed to the decline in revenue justifying the research.

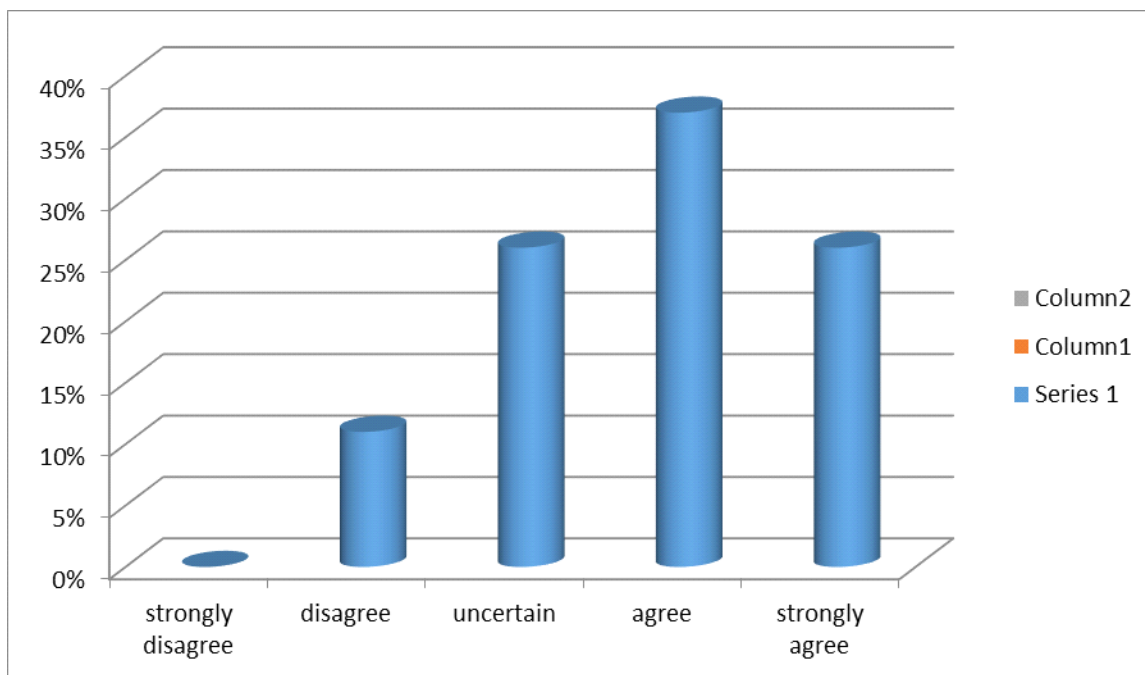
viii) lack of groundwater resources

From the survey above, (1/19)5% strongly agreed, (2/19)11% agreed,(1/19)5% were uncertain, (4/9)21%disagreed and (11/19)58% strongly disagreed. In total, 16% agreed,5% were uncertain,79% disagreed .the researcher wanted to find out if lack of groundwater resources had any impact on the revenue stream. The mode, 58% show that revenue is not a major cause of

revenue decline. t .As observed by Garrido (2009), despite the rise in demand of boreholes, unemployment rate is affecting the water industry as people are failing to pay for the basic commodity. He suggests that businesses such as borehole drilling are slow because consumers are struggling due to the economic turndown.

4.2.3 Embarking on aquaculture will improve revenue base at ZINWA.

Fig 4.3 embarking on aquaculture

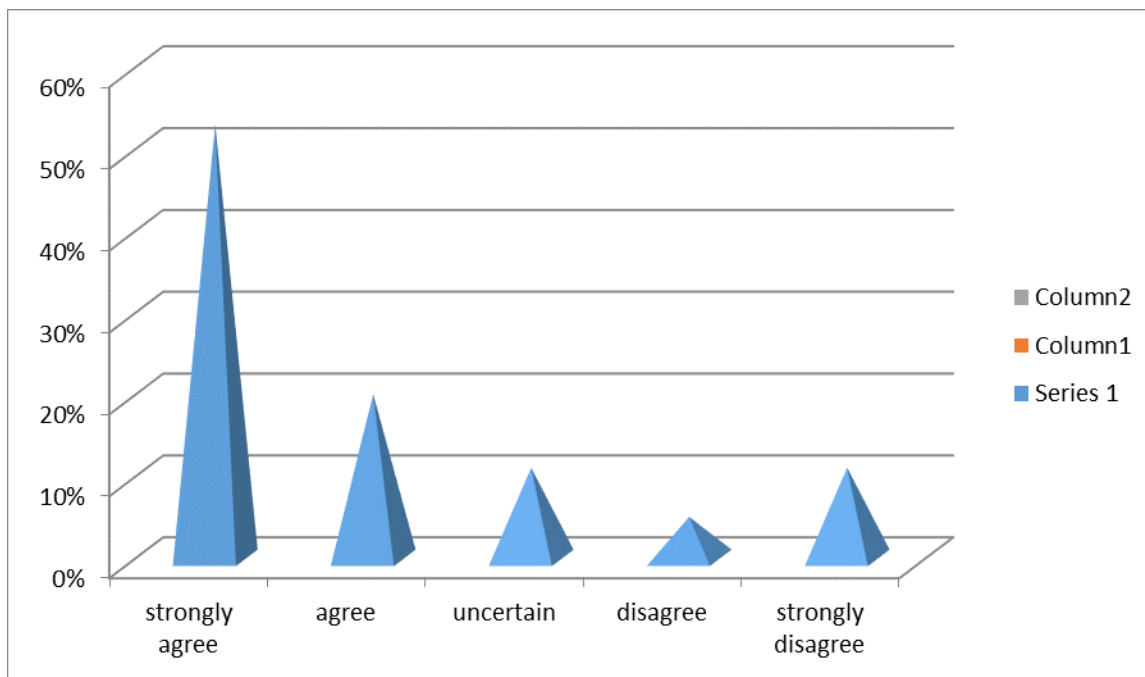


From the figure above, it can be noted that 26%(5/19) strongly agree,37%(7/19) agree, 26%(5),uncertain,(2)11%disagreed and (0)0% strongly disagreed. Of the respondents none (0%) strongly disagreed that aquaculture will improve revenue. This means that 53% agreed, 26% were uncertain, 11% were disagreed. The researcher wanted to know if embarking on aquaculture will improve revenue. The mode of 7(37%) respondents agree that aquaculture will increase ZINWA

revenue and concur with Dingwa, M(2012) who observed that the fish industry in Zimbabwe is vast as the only commercial aquaculture business is currently carried out is at Lake Harvest in Kariba which is the parent company for Elaine Pvt LTD are of the opinion that embarking on aquaculture can alleviate the financial challenges. The results show willingness to change the revenue bases. The investigator was justified on the on her research that embarking on aquaculture will improve revenue.

4.2.4 unexploited industry of aqua fish will make the project viable at ZINWA.

Fig 4.4 unexploited industry

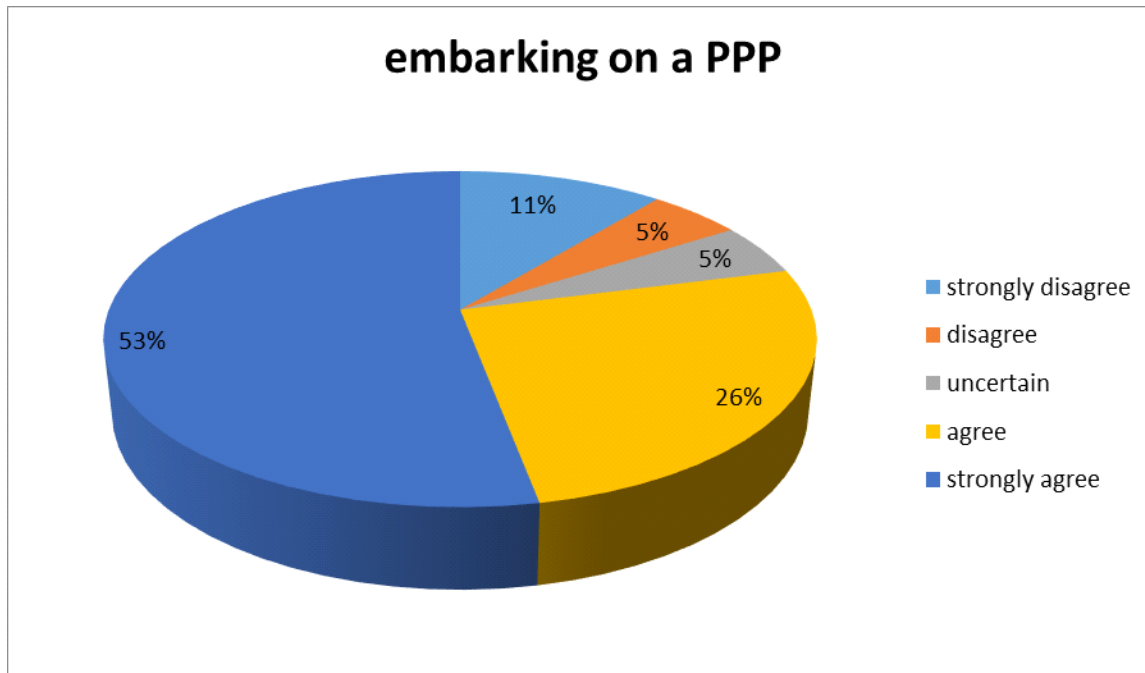


The findings show that (10/19) 53% strongly agreed, (4/19)20% agreed, (2/19) were uncertain, (1/19) 5% disagreed and (2/19)11% strongly disagreed. The mode of the respondents (10/19)53% are of the opinion that the unexploited industry of aqua fish in Zimbabwe will make the project viable and are of the same opinion with Musukumidzwa (2014), who advocated that the aquaculture industry is an unexploited industry hence those who are willing can venture into the

potential market .another contributing factor to the great market in Zimbabwe is that the country is a landlocked country ,therefore fisheries are few, increasing the demand for the product according to [www.ziminvestors.com\(08/09/2014,12:58\)](http://www.ziminvestors.com(08/09/2014,12:58)).

. 4.2.5 embarking on a PPP will make the project viable at ZINWA.

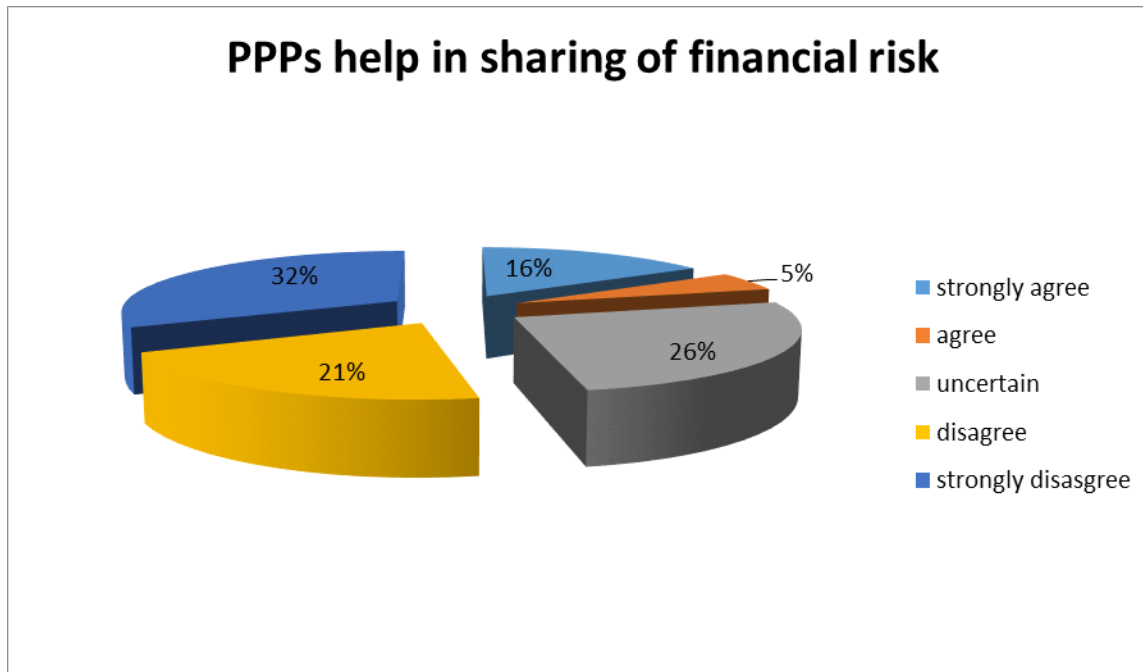
Fig4.5 embarking on PPP



For this question,(10/19)53%strongly agreed,(5/19)26% agreed, (1/19)5%were uncertain, (1/19)5% disagreed and (2/19)11%.The researcher wanted to find out if engaging in a PPP will improve the revenue sources at ZINWA. The mode, 10/19 was showed, that the respondents strongly agree and are of the same opinion with Dheret (2012), whose view is that the PPPs are more efficient in that the private partners, maintain and repair their water facilities. As a result of the nature of the private sector to provide competitive product, they employ operators who are will be available to specifically watch on the performance. The investigation of the researcher is justified that PPP engagement improves revenue generation.

4.2.6 PPPs helps in sharing financial risk.

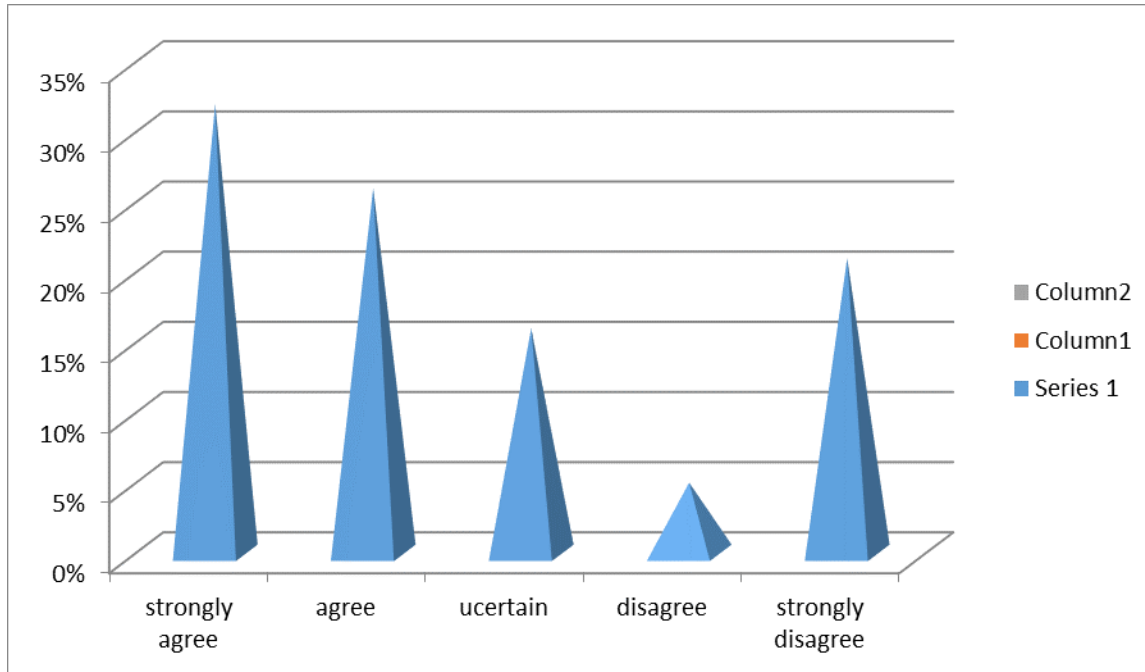
Fig4.6 PPP and risk sharing



The research showed that 32%(6) strongly agreed,21%(4/19) agreed, 26%(5/19) were uncertain,5%(1/19) disagree, and 16%(3/19) strongly disagreed that PPPs help in the sharing of financial risk. Of the respondents 53% agreed, 26% are uncertain, 21% disagreed that PPPs help in sharing of financial risk. The mode 32% which is strongly agree is of the same opinion with Khanon (2010)'s view that a PPP is an instrument that lessens financial risk.Due to tax evasion by entities, the state is unable to fund for all the parastatal developments.Therefore for the development of these projects inclusion of the private sector will relief the state of the financial requirements, depending on the financial arrangement.

4.2.7 public private partnerships are at risk of financial disaster.

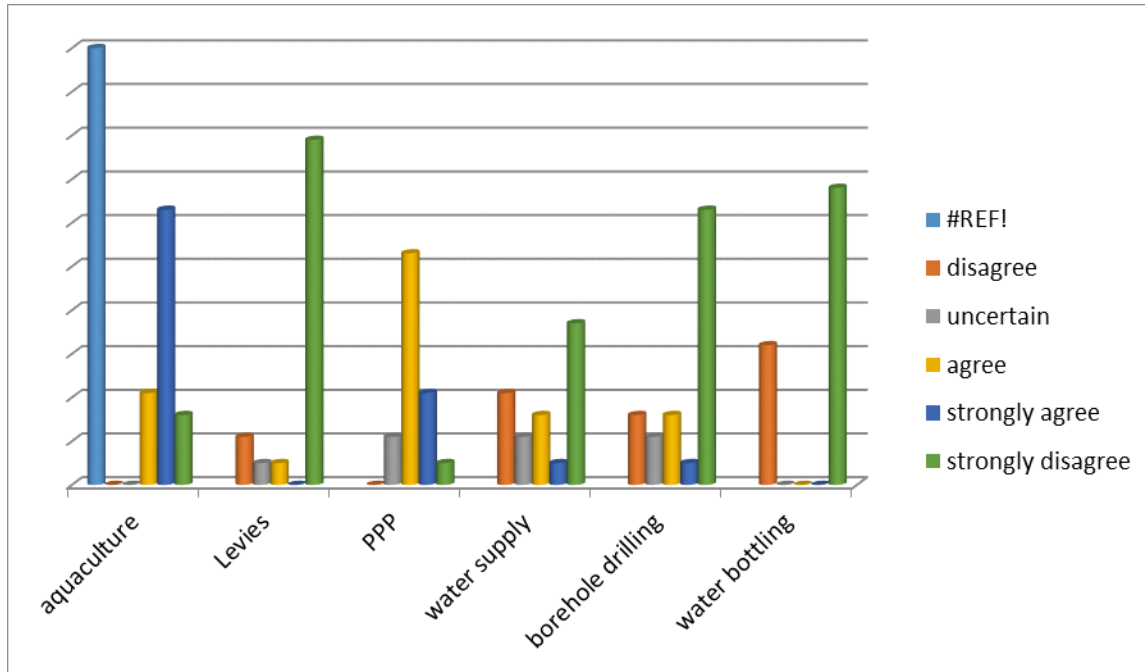
Fig 4. 67 PPPs and risk of financial disaster



From the findings 32% (6/19) strongly agree, 26% (5/19) agree, 16% (3/19) were uncertain, 5% (1/19) disagree, (4/19) 21% strongly disagree. The total who agreed 58%, 16% neutral, 27% disagreed that PPPs are at risk of financial disaster. The mode, (6/19) strongly agreed that PPPs are at risk of financial disaster. They agree with who says PPPs are at risk of financial disaster. According to Burger (2009) PPPs are prone to risk of financial tragedy. The efficiency is highly dependant on the economic conditions of the country. If a change in financial activities due to factors such as inflation and a change in exchange rates occurs the partnership is likely to suffer a loss, though the risk cannot be measured with reliability. Most of PPPs projects are funded through borrowing from banks since their projects are intensively capital demanding.

4.2.8 the following is the best practise for revenue generation at ZINWA

Fig4.8 best practice for ZINWA



i) aquaculture

The research (12/19)strongly agreed ,(4/19)21%agreed,(0%)none of the respondents were uncertain,(0%)disagreed, and (3/19)16% strongly disagreed. The total number who agreed are 84% none of the participants were uncertain, and 16% disagreed that aquaculture is the best practice for aquaculture. The mode, 12 participants are strongly agree that aquaculture is the best practice for ZINWA. Those who agree to aquaculture’s involvement concur with Tongoona (2014), who suggests that those willing to embark in the business will enjoy a large market share as the business is not being fully practiced in Zimbabwe. He suggests that since there are many idle resources, in Zimbabwe the business can be effectively managed.

ii) levies.

From the findings, none of the respondents strongly agreed that levies is the best practice, 11% (2/19) agree, (3/19) 16% are uncertain, (2/19) 11% disagree, and (12/19) 63% strongly disagree that levies is the best practice. Therefore 11% agreed, 16% are uncertain, 74% disagree.

The mode 63% disagrees with the fact that levies is the best practice for revenue generation and are of the same mind with Chishamhu et al (2009) who observed that revenue from levies cannot be relied on, though there are agreements amongst farmers to pay levy that will contribute to the maintenance of sub catchments resource. Some farmers are not comfortable with the arrangement as they feel that the water authority is making an unjustified revenue collection. Those farmers are also against payment of penalties resulting from river abuses charged by the authority.

iii) PPP

Results of the investigation show that (10/19) 53% strongly agreed, (4/19) 21% agreed, (2/19) 11% are not certain, none of the participants disagreed and (5/19) 26% strongly disagreed. Therefore those who agreed are 74% agreed, 11% were uncertain and 26% disagreed that PPPs are the best practice. The mode 53% ,are of the same mind with Dhéret (2012), who suggests that PPPs are more efficient in that the private partners ,maintain and repair their water facilities. As a result of the nature of the private sector to provide competitive products, they employ operators who are will be available to specifically watch on the performance therefore more revenue is generated.

iv) water supply

From the results are shown, (3/19) 16% strongly agree, (3/19) 16% agree, (2/19) 11% are uncertain, (4/19) 21% disagreed , and (7/19) 37% strongly disagreed that water supply is the best practice.

From the results 32% agreed, 11% are uncertain, and 58% disagreed. The researcher sought to find

out the best practise for revenue generation. based on the mode, water supply is not the best practise for revenue generation with as stipulated by Garrido(2009) who says that the fact that water provision can be viewed as a human right ,the public sector is mandated to make sure that people get it at an avoidable price without taking into account the total expenses related to it making it a poor source of revenue. The researcher's aim to find the best practice was justified that water supply cannot be a source of revenue.

v) Borehole drilling

Of the respondents, 5% (1/19), 16% (3/19) agreed, 11% (2/19) were uncertain, 16% (3/19) disagreed and 63% strongly agreed. The researcher wanted to know if borehole drilling was the best practise for revenue generation at ZINWA. 21% agreed, 11% were uncertain and 79% disagreed. Using the mode, 63% of the respondents strongly disagreed that borehole drilling is the best revenue source for ZINWA and can help eradicate the funding gap. They agree with Pilet (2014) who argues that despite the rise in demand for borehole political factors are leading to slow borehole drilling as political interference usually leads to surrendering of the nongovernmental organizations.

vi) water bottling

Responses from the interviews held show that (0%) of the respondents agreed, or were uncertain that water bottling was the best practise. This means that 32% (6/19) agreed and 68% (13/19) meaning that they rated the revenue source as a weak revenue alleviation project. The mode, 68% agree with Goodson (2012)'s suggestion that there is a stiff competition in the water bottling industry hence business is risky.

4.3 interview question findings

Q1) what is your perception on the revenue generating project at ZINWA?

The researcher desired to know, if a funding gap, really existed at ZINWA. Three out of the four respondents said the revenue generation at ZINWA is pathetic and the company has been failing to meet its operating expenses.

Another revenue generation at ZINWA is so weak because it been affected by poor pricing strategies. The fact that the government seeks to make water resources affordable to every member of the society makes the prices to be either slightly above.

Another respondent said revenue has been affected by outdated infrastructure. As observed by Chiri(2011) some of the equipment for example water consumption meters are outdated and water consumption ,in the end is not truthfully represented. The bias in the estimates on consumption leads to estimates probably falling below actual costs.

made by water operators to detect water consumption leads to undercharges. He mentioned that in areas like Chivhu, the operators make estimates on the bases that they will find the gates locked and most consumers do not respond to their calls. Therefore the estimates lead to undercharging and this concurs to Murinda (2011)'s point that estimates leads to undercharges.

The respondent was not sure whether revenue generation was the cause for the failure to cater forexpenses and suggested that there might be other causes to the failure other than revenue for example.

The purpose of this study was justified by the confirmation of the existence of the funding gap.

Q2) Do you think embarking on aquaculture will improve funding at ZINWA?

Two respondents think that aquaculture will improve the revenue generation at ZINWA.

The respondent mentioned that fish industry is very shallow in Zimbabwe with many people relying on supplies from poarchers as the formal sector have a few participants like Elanne Pvt Ltd. The fomal sector has to take advantage of the opportunity and invest on the available opportunity. He mentioned that since ZINWA is in control of all water resources in Zimbabwe there will not have any problem establishing the project.

Is of the opinion that this will be a very good commitment for the parastatal as it is a trading service and consumption is not compulsory but is based on willingness not need. Therefore since it is not mandatory, to get fish, prices are charge freely since it is not a human right to get fish.

Argued that it is a complicated and risks project .She mentioned that the requirements to start the project are expensive and difficult to attain since the company is already struggling financially. She also suggested that the project will lead to contamination of the water affecting all other water projects at ZINWA. This agrees to Verdegem and Bosma(2009)'s view that the products are most likely to cause water contamination as observed by .In the case where the cages are placed in

water ,the fertilizers ,food and chemicals for health maintenance are most likely to disturb the natural water cycle .this may lead to low rainfall and consumption of contaminated water.

Factors such as cost of training employees, costs of raw materials and transport and distribution costs are high .Since the company is already struggling as mentioned by Kasukuwere (2014), it is risky to invest in a new project and this might lead to product failure .

Q3) Do you think embarking on PPPs will improve resource maintenance? Two of the respondents view PPPs as a well of improving revenue generation.

She mentioned that for a PPP to be formed there would have made investigation on the speciality of either party and the partnership will be meant to complement the loopholes of the other partner. She further said that compensation to workers is the best thing for the success of any project is that the private sector in most situations provide favourable employee benefits. In support of Dheret (2012)'s view ,they mentioned that PPPs are more efficient due to the fact that the private partner will be seeking market hence better results are obtained .

Another respondent was of the idea that PPP would help ZINWA in the ensuring of public goal satisfaction. Better decision making would be made as a result of the combination as experts in different fields would come together to do one project.

The other disagreed , and mentioned that ZINWA has a centralised structure if reporting This has ,in his view ,another contributing factor to the revenue decline as decision making takes time .therefore ,in their view, involvement of the private sector will expand the reporting structure hence slower decision making as stated by Yuan (2009).

Another respondent was of the idea that Zimbabwe is not the best country in which a company may invest in PPPs because the prevailing economic condition is not stable.

The researcher wanted to establish the best way of collecting revenue for ZINWA. Two employees were of the opinion that revenue from the existing sources is the best practise, one mentioned aquaculture and the other mentioned PPP.

The respondent supported revenue from existing sources, that is water supply, borehole drilling, levies and water bottling. They suggested that it was less costly to improve the existing businesses. For water, bottling a suggestion was made that they can just improve the marketing strategy as the resources for production are available but the demand is low.

Another respondent mentioned that the pricing strategy of water supply needed a review, when properly priced, revenue will increase as postulated by Leurig (2013). In terms of borehole drilling a suggestion was also made to look for better strategies so that the projects gain market. He suggested that venturing in new projects has many risks such as completion from existing suppliers and threats of substitutes as suggested by Hassan et al (2014).

The respondent was of the opinion that PPP was the best practice since there is an element of sharing business risks.

The respondent suggested that aquaculture was the best. He mentioned that the business will give more benefits such as employment creation to the society thereby increasing the ability of citizens to pay for other water facilities they have been failing to.

4.4 summary

This chapter presented the findings from the research, this was done by use of tables and graphs. An analysis of the opinions of respondents was done. The conclusions and recommendations based on the findings will be done in the next chapter.

CHAPTER 5

RECOMMENDATIONS AND CONCLUSIONS

5.0 Introduction

In this chapter the researcher will look at the chapter summaries presented in this study, highlight the major results and discoveries, conclusions based on the results and the proposed areas for additional research and summary.

5.1 Chapter Summaries

The introductory chapter reveals the revenue crisis prevailing at ZINWA Sanyati Catchment. An evaluation of the revenue expenditure analysis reports for the years 2011, 2012 and 2013 was made. Supporting evidence was found indicating the failure to meet revenue targets at ZINWA will operational expenses exceeding revenue generation for each trading period .the main objective was to investigate new revenue sources that ZINWA can embark on to alleviate the prevailing funding gap. The researcher also sought to evaluate the currently used revenue bases at ZINWA, to establish the applicability of aquaculture in improving the revenue base, to evaluate if PPPs can be implemented at ZINWA as a financing tool to alleviate the funding gap at ZINWA, to identify probable challenges and to find the best practice for ZINWA

In the previous chapter, the researcher evaluated the opinions of other scholars in relation to investigation of new revenue sources for ZINWA. An empirical study ion strength and weaknesses of both existing and suggested revenue sources was done. Ravic and Ravenovic (2011) gave an insight of what a PPP is, and Utete (2013) explained on the aquaculture. A better understanding of

the proposed sources was established. Leurig (2013) explained the effects of pricing on water supply services. Bakhshed(2010) advocated his ideas concerning borehole drilling Hassan et al(2014) explained on the challenges that are most likely to affect the engagement of an entity.

The researcher highlighted the methodology used in data gathering. The researcher utilized both qualitative and quantitative methods in data collection. Descriptive design was used. Tools used to carry out the study were questionnaires and interviews. A sample of 24 respondents was selected. The likert scale was adopted to rate the opinions of respondents. A plan was stated, that would be used in the data presentation and analysis.

In chapter four, results from the investigations were presented using graphs, charts and tables. An analysis of the data was done to make the data understandable. The findings showed that respondents wanted a change in the revenue generation source to alleviate the revenue gap.

5.2major research findings

5.3existing revenue sources and their challenges

Data collected indicated that ZINWA relied on revenue from sources that have to meet social, political and economic standards thereby affecting the revenue stream. From the discovery, a finding was made that the existing revenue sources, for example water supply put ZINWA at financial risk as it was vulnerable to political manipulation, it was not treated as a business in terms of pricing as it should be. It was at risk of illegal reconnections, theft, undercharging as a result of understated estimates.

Primary data, showed that levies was indeed a poor way of collecting revenue for ZINWA. It was shown that most of the permit holders were reluctant to pay. From the interview held ,a finding was made that levies was being done also based on levies exposing water resources to exploitation as there was no stable measure on the water consumption. Therefore if was discovered that revenue from levies, as the price is set and approved by the minister, cannot be entirely relied on as the major source of revenue.

The data collected showed that there was a problem with revenue form bottled water as there was competition from existing suppliers of the same product such as Schweppes and Tingamira. The water was selling at an acceptably slow rate making the business difficult to rely on as the costs incurred in bottling the Kumakomo Spring water for ZINWA was taking long to recover.

Revenue from borehole drilling was also discovered from the interviews to be a risky business as there was competition in the industry. The findings also clarified that, by the nature of borehole drilling it is a once off thing for consumers as they do not request for boreholes do not have them drilled everyday. Another challenge associated with borehole drilling as a source of revenue for ZINWA, was discovered to be economic hardships. By the nature of the service it is expensive, hence the findings stated that due to the prevailing unemployment rate only a few willing customers had the ability to fund for the service.

5.2.2 New revenue sources for ZINWA

From the findings, it was noted that ZINWA would be more viable if it introduced a new revenue source. Data compiled showed that aquaculture was the best practice that ZINWA can embark on to alleviate the revenue crisis.

5.2.1.2 Strength of aquaculture

Data gathered showed that aquaculture was the best practice for revenue generation, since it was a venture with less competition, as there was only one established company doing it in Zimbabwe posed a great opportunity of market share. The threats of barriers to entry, threat of existing, bargaining power of buyers, bargaining power of suppliers and threat of substitutes were minimal in the industry. Data collected also showed that ZINWA had many idle water resources and aquaculture can be used to make profit out of the underutilized properties. The respondents, in the interview highlighted that aquaculture, as it is not a provision of a common service would provide more reliable funds as the pricing would depend on the costs.

Challenges in embarking on aquaculture

From the data collection, an indication was shown that aquaculture needed proper funding as any misappropriation in the production period may lead to death of the stock. The business highly needs experts which could be costly. Another discovery is that, the business could lead to the contamination of water resources and affect the other water venture such as water supply. The business venture also need ready transportation.

5.2.3Strength of PPP

From the findings it was noted that ,as observed by Dhéret(2012), PPPs are more efficient in that the private partners maintain and repair their water facilities .As a result of the nature of the private sector to provide competitive products ,they employ operators who are will be available to specifically watch on the performance. According to, Chiri (2011), shortage of sufficient technicians and engineers to haunt productivity in the public water supply sector. Communication between consumers and suppliers is also improved. ZINWA has communication problems with some consumers located in area where there is telecommunication problems therefore, their quieries take a long period to be attended to.

5.2.4challenges of implementing PPPs

From the research it was noted that PPPs was a great risk of financial disaster as advocated by Burger (2009) since the economic and political environment in Zimbabwe is not stable. The research highlighted that since Zimbabwe was currently using foreign currency for its transactions, changes in the currency utilized would affect the PPP and haunt project progression. The financial institutes are also not willing to extent capital borrowings due to the unstable economic conditions in Zimbabwe. It was noted that there has to be mutual understanding and trust for the success of a PPP.

5.3Conclusions

Based on the research which was a success, conclusions where drawn and revenue enhancement recommendations were made that:

5.4. Recommendations

Since the research findings indicated that aquaculture was the best practice to generate revenue and alleviate the funding gap at ZINWA, the researcher, recommend aquaculture to be adopted as a new source of revenue at ZINWA. Mawire (2014) postulates that there is need to advance the utilization of natural water resources in Zimbabwe in order to generate more income and increase the GDP. According to Musukumidzwa (2014), the aquaculture industry is an unexploited industry hence those who are willing can venture into the potential market .ZINWA can take the opportunity to venture into the new industry and get more funds for its operations.

In relation to the research, In a Spain research a conclusion was drawn that aquaculture is growing and the market is filled with almost 50% fish form aquaculture according to. (www.uicnmed.org) the business is proving to be beneficial to those who have ventured it ,and Windmar (2013) points out that Elanne in Kariba is enjoying monopoly power of the industry. Therefore ZINWA can join this industry that does not have perfect competition as it has poor marketing strategies for all its existing products.The findings show that expertise and knowhow are the greatest keys for the success of the aqua business. The researcher recommends human resource training ,proper packing, competitive pricing, properly planned distribution systems as indicated by Nielsen(2014) the end product as by its nature cannot be distribute without packaging ,power expenses and analysis of the existing market.

5.5 Areas of further studies

In this research, attention was on aquaculture and PPP as ways of improving revenue generations at ZINWA. Further investigations can be done on other revenue systems that ZINWA can embark on to alleviate the funding gap. Further research can also be done to find ways of improving revenue with PPPs in a less risky way.

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APPENDIX I: APPLICATION LETTER



The Catchment Manager

ZINWA Sanyati Catchment

P.O.Box 554

Gweru

Dear Sir/ Madam

RE: A REQUEST TO CARRYOUT A RESEARCH STUDY AT ZINWA SANYATI

I am kindly requesting for your authorization to conduct my research entitled, “ *An investigation of the new revenue sources to improve the funding gap. Case study of ZINWA.*” The purpose of this research is for academic use in the partial fulfillment of the Bachelor Of Commerce Honors Degree in Accounting. Investigation outcomes will be retained confidentially.

Your response will be greatly appreciated

Yours Faithfully

Gamuchirai Mukandabvute



questionnaire

Title ; *An investigation of the new revenue sources to improve the funding gap. Case study of ZINWA.*

You can indicate your responses by ticking the answers in the boxes aligned to the options.

1.The revenue generated from your organization is failing to cater for operating and capital expenditure .

Strongly agree	agree	Uncertain	disagree	Strongly Disagree

2.The factors below have contributed to the decrease in revenue generation

	Strongly agree	agree	Uncertain	disagree	Strongly disagree
i) poor service delivery					
ii) monopoly power of service delivery					
iii) poor pricing strategies					

v)lack of groundwater resources					
v) illegal reconnections					
vi)the incompetence of Management					
vii) weak internal controls					

3. Embarking on aquaculture will improve revenue base at ZINWA.

Strongly agree	agree	Uncertain	disagree	Strongly Disagree

4. Unexploited industry of aqua fish will make the project viable at ZINWA.

Strongly agree	agree	Uncertain	disagree	Strongly Disagree

5. Embarking on PPPs will improve the revenue base at ZINWA.

Strongly agree	agree	Uncertain	disagree	Strongly Disagree

6. PPPs help in sharing of financial risk .

Strongly agree	agree	Uncertain	disagree	Strongly Disagree

7 Public private partnerships are at risk of financial disaster.

8The following is the best practice for revenue generation at ZINWA.

	Strongly agree	agree	uncertain	disagree	Strongly disagree
Aquaculture					
Ppps					
water supply					
Borehole drilling					
Levies					
Water bottling					

APPENDIX III: TOP MANAGEMENT INTERVEIW GUIDE

1. What is your perception on the revenue generating project at ZINWA?
2. Do you think introducing aquaculture will improve funding at ZINWA?
3. Do you think embarking on PPP will improve resource maintainance?
4. What is the best practise of generating revenue to improve the funding gap at ZINWA?