An Evaluation of the use of the Resource Based View (RBV) theory of the Firm in Zimbabwe’s Public Sector: the Case of Zimbabwe National Water Authority (ZINWA)

By

Graham N. Mugati
R068248C

A Dissertation Proposal Submitted in Partial Fulfillment of the Requirements of a Master of Business Administration Degree

Supervisor: Dr. D. Maravanyika

MARCH 2013
DECLARATION

I, ......................................................, do hereby declare that this dissertation is a result of my own investigation and research work, except for what is indicated in the acknowledgements, references and comments included in the body of the report, and that it has not been submitted in partial or in full for any other degree to any other university.

............................................ ............................................
Student Signature Date

............................................ ............................................
Supervisor Signature Date
ACKNOWLEDGEMENTS

I would like to thank the guidance of Almighty God throughout my Masters in Business Administration (MBA) studies at the University of Zimbabwe (UZ). I am grateful for the support from family and friends who were patient and assisted me as I studied the MBA program.

My gratitude also goes to Dr D. Maravanyika who assisted me in putting this dissertation together. I am grateful for the knowledge he extended to me and the study material he offered.

I would want to thank Zimbabwe National Water Authority (ZINWA) management for supporting me in my studies. I am also indebted to ZINWA staff who were key informants in this study. This study was made successful because of the in-depth knowledge that I acquired from the various lectures I attended at the UZ Graduate School of Management.
ABSTRACT

This study focused on the evaluation of the use of the Resource Based View (RBV) theory of the firm in the public sector of Zimbabwe using Zimbabwe National Water Authority as a typical case. The research was based on the RBV theory that states that every organization is made up of an organogram and a bundle of resources which are integrated to perform profitable objectives. Firm resources that are valuable, rare, imitable and non-substitutable (VRIN) together with its core competencies give the organization a sustainable competitive advantage over others.

Data was collected from six respondents using semi structured self administered questionnaires and three semi structured interviews. The informants were managers involved in the strategic business planning, implementation, monitoring and evaluation of ZINWA. This data was presented and analysed using data display tables and descriptive analysis.

The study showed that ZINWA had human capital, water infrastructure, finances, buildings and equipment as its resources and only the first two followed the VRIN model. Civil engineering, water resources management, repair and maintenance of water equipment and the ability to perform under harsh economic conditions came out as the core competencies of ZINWA. However the authority did not make use of its resources and core competencies to increase its viability and they could be used to increase its profitability through rationalization of operating costs, water tariff rationalization, re-orientation of staff, water bottling, water kiosks, fisheries, lodges, hydro-electricity power generation and irrigation development. Conclusively there was no application of the RBV theory of the firm in strategic business management of ZINWA and thus public organizations in Zimbabwe. The study recommends ZINWA to carryout valuation of its resources and uses them together with their core competencies to come up with projects that bring in extra revenue to improve its profitability.
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<td>AIDS</td>
<td>Acquired Immuno deficiency Syndrome</td>
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<tr>
<td>CAAZ</td>
<td>Civil Aviation Authority of Zimbabwe</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<td>DDF</td>
<td>District Development Fund</td>
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<tr>
<td>DWD</td>
<td>Department of Water Development</td>
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<td>EMA</td>
<td>Environmental Management Authority</td>
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<td>ERP</td>
<td>Enterprise Resource Planning</td>
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<td>GPA</td>
<td>Global Political Agreement</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GMB</td>
<td>Grain Marketing Board</td>
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<tr>
<td>HIV</td>
<td>Human Immuno Virus</td>
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<td>ICT</td>
<td>Information Communication Technology</td>
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<td>KBV</td>
<td>Knowledge Based View</td>
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<td>MDC</td>
<td>Movement for a Democratic Change</td>
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<td>MDC-T</td>
<td>Movement for a Democratic Change-Tsvangirayi</td>
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<td>MM</td>
<td>Mines and Minerals</td>
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<td>MMCZ</td>
<td>Minerals Marketing Authority of Zimbabwe</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>MinWRMD</td>
<td>Minister of Water Resources Management and Development</td>
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<td>MoWRDM</td>
<td>Ministry of Water Resources Development and Management</td>
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<td>NPV</td>
<td>Net Present Value</td>
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<td>NPWMA</td>
<td>National Parks and Wildlife Management Authority</td>
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<td>RDC</td>
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<td>Regional Water Authority</td>
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<td>SBU</td>
<td>Strategic Business Unit</td>
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<td>Tobacco Research Board</td>
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<td>Research and Development</td>
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<td>Urban Councils</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>UNICEF</td>
<td>United Nations Child Education Fund</td>
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<td>VRIN</td>
<td>Valuable, Rare, In-imitable and Non-substitutable</td>
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<td>VRIO</td>
<td>Valuable, Rare, In-inimitable and Organization</td>
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<td>World Health Organisation</td>
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<td>ZANU PF</td>
<td>Zimbabwe African National Union Patriotic Front</td>
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<td>ZETDC</td>
<td>Zimbabwe Electricity Transmission and Distribution Company</td>
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<td>ZESA</td>
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<td>ZIMRA</td>
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<td>ZINWA</td>
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CHAPTER 1: INTRODUCTION AND BACKGROUND

1.1 Introduction

1.1.1 Resource Based View (RBV) of the firm theory direction
This Chapter dwells on introducing the direction of the RBV theory, background of the study, the problem at hand, research objectives, research questions, scope of the study, justification of the study, the study proposition and the structure of the study. The Resource Based View (RBV) theory of the firm is considered to be a model which enables a firm to attain sustainable competitive advantage through the use of its resources and core competencies (capabilities) (Karthikeyan, Bhagat and Kannan, 2011; Newbert, 2007; Barney, 1991 and Waferfelt, 1984).

The theory is first highlighted through Penrose’s 1959 studies of the theory of firm growth (Rizal, 2011). She describes RBV as the use of the firm’s valuable resources in-order to attain competitive advantage over others. Penrose views a firm as having an administrative structure which works with productive resources in order to attain some profit (Rizal, 2011). The firm’s resources are classified as tangible, intangible and organizational and these include human resource, assets and infrastructure (Soto-Acosta & Merono-Cerda, 2008). Management using their entrepreneurial skills can use these inherent and external resources to come up with exclusive products and services that are profitable to the company (Rizal, 2011).

RBV theory has been applied at various firms in several countries and has enabled managers to realize the value in the resources they posses (Karthikeyan, Bhagat & Kannan, 2011). The benefits have been attributed to the fact that resources and capabilities of competing firms are heterogeneous and when they are valuable, rare, difficult to imitate and un-substitutable thus providing a competitive advantage of a firm against other firms (Wernerfelt, 1984 as cited in Soto-Acosta & Merono-Cerda, 2008). This has enabled firms to outsource non-core activities, concentrate on core competencies, discover new products and services, discover new uses of their products,
and consequently lower their operating costs (Karthikeyan, Bhagat & Kannan, 2011). Efficiency has led to an increase in profitability. Theories of entrepreneurship have been found to be linked with the RBV theory (Foss, 2011).

Studies on the RBV theory of the firm have been done in other parts of the world such as in the United Kingdom National Health Service (Bryson, Ackermann & Eden, 2007); in Brazil tourism sector (Massukado-Nakatani & Teixeira, 2009) and in Israel (Fraczkiewich-Wronka & Mackowska, 2011). There are however, no studies on the evaluation of the use of the RBV theory done in the public sector of Zimbabwe and on Zimbabwe National Water Authority (ZINWA) in particular. This study is thus based on this background and would want to fill the research gap present by evaluating the use of the RBV theory in the public sector of Zimbabwe using ZINWA as a case.

1.2 Background

1.2.1 Business Macro-environment in Zimbabwe
This section gives an outline of the political, economic, social, technological, ecological and technological environment in Zimbabwe. It therefore gives the background to the macro environment that affects the operations of ZINWA.

1.2.1.1 Political Environment Analysis
The present political environment has emerged as a result of the new political dispensation which saw the signing of the Global Political Agreement (GPA) by the three main political parties in Zimbabwe namely Zimbabwe African National Union Patriotic Front (ZANU-PF), Movement for a Democratic Change- Tsvangirayi (MDC-T) and Movement for a Democratic Change (MDC) in September 2008 after an election that did not have a clear winner in March 2008. This gave birth to the Inclusive government in February 2009. This GPA provided for the crafting of a new constitution and its referendum within its lifespan of eighteen months and subsequently conduction
of election where a clear winner is anticipated and later forms a government. Therefore, the GPA is just a caretaker government that has to facilitate a peaceful crafting of a new constitution and holding of free and fair elections.

The GPA gave rise to the establishment of a cabinet that is made of ministers from the three mentioned political parties. The water sector is headed by Honourable Minister Samual S. Nkomo who is an MDC-T Member of parliament for Lobengula constituency in Bulawayo urban areas. Having been raised in dry Lupane area of Matebelaland, the Minister implemented various projects in Midlands, Masvingo and Matebeland provinces which are climatologically and hydrologically dry. These projects had been at a halt for a long time by previous governments. Ministry of Water Resources Development and Management (MoWRMD) has managed to secure some funding for various projects. These projects include Tokwe-Murkosi (when complete will be the largest water body in Zimbabwe with 1 900 000 megalitres storage capacity at a cost of above $100 million) dam in Masvingo which will provide water for irrigation (to surrounding farmers and downstream sugarcane farmers in Triangle); hydro-electricity generation; fisheries; boating; hospitality and wildlife farming. Mtshabezi pipeline that conveys complete raw water from Mtshabezi dam in Esigodini to augment supplies in Bulawayo that has been marred by water shortages for more than two decades has been completed. This project was finished when the new Minister assumed duty in 2009.

Bubu-Lupane (capacity of 50 000 megalitres) dam was commissioned in June 2012 to supply water for Lupane residents and irrigation to neighbouring families. Construction of a new water supply system in Lupane to be fed by the dam is underway and is expected to be complete by May 2013. Funding for the Zambezi pipeline that is going to convey water from Zambezi River in Hwange into Gwayi-Shangani dam (to be constructed) then to Bulawayo has been secured and work is expected to start in the second quarter of 2013. This project is meant to augment water supply in Bulawayo and other parts of Matebelaland that do not have adequate water supplies. Matange dam in
Gokwe was completed in June 2012 and a water supply station that will use water from this dam is under construction and this is going to address water challenges in Gokwe.

The land reform which started in 2000 has brought some challenges in the management of water resources. These problems include: sharing of water; maintenance of water infrastructure (dams, rivers and canals); under utilisation of water and non payment of water charges, rates and levies. Apart from arguing that water resources are for free just like land which they were allocated by government most of the farmers do not have technical and financial capacity to manage water resources in their properties. Sharing of the water resources by various farmers where there was one farmer who owned the whole system is also proving to be difficult. Some are not even comfortable to offer servitudes to others to have their irrigation pipes pass through their properties. This has resulted in heavy disputes and sometimes fights amongst the farmers. If these farmers were paying for water levies then ZINWA and its related institutions would be able to manage water resources and solve disputes amicably. Because of this it has become difficult for ZINWA to fully carry out its statutory functions of water resources management.

1.2.1.2 Economic Environment Analysis
Coming from an environment of political unrest, high inflation, high institutional inefficiencies, low productivity, high balance of payments and limited foreign support; the emergence of an inclusive government gave stability to the volatile socio-economic environment in Zimbabwe (Ministry of Finance, 2012). This also saw the adoption of a multi currency system with the United States dollar, British Sterling, South African Rand and Botswana Pula being the most used currencies. This led to some liquidity challenges since the central bank has no direct control over these currencies. The current business environment in Zimbabwe is characterized by limited growth in gross domestic product (GDP), high unemployment, an illiquid banking system, high technology costs, and inconsistent government policies.
However inflation has been stable at around 5% (Ministry of Finance, 2012). The overall economic growth has been below the projected 9.3% for 2012 with mining, agriculture, manufacturing, utilities (electricity and water) and construction contributing the most in the respective order. The banking sector has been experiencing a significant growth in deposits although there are high service charges (including borrowing rates) and limited credit lines for the productive sector. The major local lenders to local banks Old Mutual and National Social Security Authority (NSSA) slashed their rates towards the end of 2012 to 10% from 15% per annum, so that banks could also lower their lending rates to retail customers as a way of promoting borrowing. The Reserve Bank of Zimbabwe 2013 first quarter Monetary Policy had lowering of bank charges after banks had signed a Memorandum of Agreement with the central to lower their charges as a way of promoting deposits. One of the changes is that no charges would be levied on a deposit that is lower than $800.01. Capacity utilization in the productive sector has been reported by the Ministry of Finance (2012) to be below 50%.

1.2.1.3 Social Environment Analysis
The social make up of Zimbabwe has been marred by high unemployment, declining social services (health, education and housing) and devastating diseases (HIV/Aids, Tuberculosis (TB), malaria, typhoid). The high levels of unemployment have resulted in an influx of unskilled and semi-skilled labour. However, most people are informally employed surviving on vending, subsistence agriculture, trades (plumbing, carpentry, welding, motor mechanics). The United Nations Children’s Education Fund (UNICEF) has been assisting in reviving the basic education system that had declined prior to 2009. World Health Organisation (WHO) on the other side that has been assisting through the Global Fund to rescue the health services sector in fighting HIV/Aids, TB and malaria. An outbreak of typhoid has been experienced as a result of poor water and sanitation facilities which also remain a challenge to Zimbabwe’s social system.
Low incomes and high unemployment has made people being unable to pay for water they would have consumed. There are families which are headed by the elderly, orphans, disabled and critically ill who require some form of assistance in meeting their water bills. However, there is no deliberate social service to cater for these vulnerable groups that have a right to water an essential good. This challenge is affecting the inflow of cash into ZINWA’s account thus compromising service provision.

1.2.1.4 Technological Environment Analysis
Zimbabwe has seen a significant improvement in the information communication technology sector. There has been growth in the number of players in the data and voice provision services with coverage spurning the rest of the country. This expansion has been complimented by the Post and Telecommunications Authority of Zimbabwe (POTRAZ) that manages a Universal Telecommunications Fund that is meant to develop telecommunications infrastructure in less developed areas. By January 2013, POTRAZ had developed eight base stations in the remote areas of Mashonaland West and Central provinces. This has provided a platform for a better environment for service provision by companies since information communication technology is an enabler of various economic activities. The introduction of road toll fees has seen government and local authorities embarking on road maintenance programmes and widening of some major roads such as the Harare-Mutare road. There are also efforts to find alternative sources of energy to power the nation by government and the private sector.

Improvement in technology has seen ZINWA, Harare Water, ZETDC and Te-lone install Enterprise Resource Planning (ERP) suites to integrate and automate all their business functions. This helps to electronically centralize all activities and thus serves time and ultimately costs in execution of duties. These utilities are moving into installing pre-paid meters and Harare Water has installed pre-paid water meters in its pilot project whilst ZETDC launched pre-paid electricity meters in September 2012. Prepaid meters will guarantee utilities a constant inflow of cash; thus help in improving service provision.
1.2.1.5 Ecological Environment Analysis

The natural environment of Zimbabwe has been characterized by the late on-set of the rainy seasons characterized by dry spells in between. Consequently there have been low water levels in rivers and dams that are in the natural regions III to V. This has negatively affected the agricultural sector which feeds into the manufacturing sector. The Meteorological Services have reported a general increase in average temperatures of the country. All these have been attributed to the climate change phenomenon that is haunting the whole world. This has caused longer summer seasons with rainy periods marked by mid season dry spells and shorter winters. The parts of the country that are in Natural regions III to V are usually prone to droughts (meteorological, hydrological and agricultural).

Zimbabwe is divided according to seven main rivers to constitute what are called river basins (catchments). These are Manyame, Mazowe, Save, Runde, Mzingwane, Gwayi and Sanyati. These also have sub-catchments which are sub-basins within the main basin. For instance in Manyame catchment, there are five sub-catchments which are Upper Manyame, Middle Manyame, Lower Manyame, Angwa-Rukomichi and Musengezi. Each sub-catchment has its unique hydrological parameters such as rainfall, temperature, evaporation, mean annual run-off, yield and co-efficient of variation of run-off. There are more than 2 000 dams in Zimbabwe with a capacity of up to 1 400 000 ML. These dams supply water for urban use, irrigation, mining, electricity generation, construction, livestock, wildlife and recreation.

There are low laying areas which are prone to flooding during the rainy season. Muzarabani (Hoya, Dambakurima, Chadereka), Chidodo, Kanyemba, Malipati, Chikwalakwala, Chipangayi, Mahenye, Middle Save basin, Gokwe and Tshlotsho are the major parts of Zimbabwe prone to flooding. Elsewhere flash floods occur at major river confluences such as at the confluence of Odzi and Save and confluence of Save and Runde rivers. These floods disturb the abstraction of water from where they are occurring; destroy livestock, plants, infrastructure, cause water borne disease and at times people drawn in the water.
1.2.1.6 Legal Environment Analysis

Water Act [Chapter 20:24] and ZINWA Act [Chapter 20:25] are the two laws that empower ZINWA and Catchment Councils to manage water resources. The ZINWA Act empowers ZINWA to manage and develop water resources and supply raw and clear water to local authorities that do not have capacity to do it on their own. However, there are other laws that have sections related to water resources management, which are: Rural District Councils (RDC) Act; District Development Fund (DDF) Act, Urban Councils (UC) Act, Environmental Management Authority (EMA) Act and Mines and Minerals (MM) Act.

The RDC Act empowers RDCs to supply portable water to their residents, industries, businesses and any other institutions that may require the water. However, most of them do not have capacity to do so thus ZINWA comes in to supply water as it is mandated to supply local authorities in that predicament. The DDF Act empowers DDF to build dams, canals, irrigation systems and drill boreholes for the supply of communal portable water. The UC Act empowers urban local authorities such as Local Boards, Towns, Municipalities and Cities to own dams and supply portable water to various users. EMA Act among other things empowers EMA to administer ambient water quality monitoring along rivers of Zimbabwe and charge effluent discharge fines, thus ZINWA is not accountable for any pollution activities in the rivers although it faces challenges in purification of this water at its water supply stations. The MM Act gives preference to mining rights over water resources development and this has posed challenges for pollution of rivers systems.

The MoWRDM embarked on crafting of its inaugural water policy to give direction and explain roles of players in the water sector in March 2012. There was wide stakeholder consultation on this water policy. Issues raised include: provision of subsidies to vulnerable groups in the society (orphaned, elderly, poor and sick); reverting water quality management issues back to the Water Act; empowerment of ZINWA to
prosecute water users who default payment and those who vandalise water infrastructure and to give priority to water resources development over mining development.

**1.2.2 Public Sector Analysis**

The public sector of Zimbabwe is made up of government departments; boards, authorities and agencies which are set up by Acts of parliament to provide essential basic services such as water, electricity, rail transport, road transport and telecommunications. Local authorities also form part of the public sector as they provide water, road services, street lighting, refuse collection and housing. Examples of companies in the public sector are EMA, Grain Marketing Board (GMB), Minerals Marketing Authority of Zimbabwe (MMCZ), National Railways of Zimbabwe (NRZ), ZINWA, Zimbabwe Revenue Authority (ZIMRA), Zimbabwe Electricity Supply Authority (ZESA), Tel One, Tobacco Research Board (TRB) and Zimbabwe United Passengers Company (ZUPCO), Air Zimbabwe and Civil Aviation Authority of Zimbabwe (CAAZ). Most of these were inherited at Independence in 1980. According to State Enterprises Restructuring Agency (SERA) in UNDP (2009), Zimbabwe had 76 state enterprises in 2006 with 60% of them having been inherited from the Rhodesian Government.

The RBZ (2007b) as cited in UNDP (2009) reported that state enterprises contributed 40% of the Gross Domestic Product (GDP) of Zimbabwe. Since most parastatals have been relying on financing from the fiscus, they have become a burden and their service delivery has been deteriorating (UNDP, 2009). The Economic Structural Adjustment Programme (ESAP) of 1991/1995 which aimed to reduce the burden of state enterprises through privatization identified the following as the major causes of failure of state enterprises (UNDP, 2009, p16-18):

- Government pricing policies which did not allow a number of public enterprises to cover their costs.
• Various Acts which required government to finance public enterprises’ deficits from the national budget, even when these deficits were due to mismanagement.
• Government usually failed to pay for the costs of investment or activities carried out by public enterprises for purely social reasons.
• The capital base of many public enterprises consisted largely of loans, resulting in a heavy debt-service burden.
• Boards of directors and managers lacked autonomy and accountability. Line ministries were involved in day-to-day decision-making in the areas of personnel, salaries, investment and purchasing decisions.
• Corruption and mismanagement.
• Internal financial control systems and external monitoring systems for public enterprise performance were inadequate.
• Their boards did not always possess the expertise needed for effective management.

Loss of technical skills is one of the results of failure of public enterprises (UNDP, 2010). This has even worsened by their incapacity for service provision. It is further reported that some staff has remained acting in key positions for a long time and some firms have gone for long periods without boards leaving the line ministry to run the affairs of the firm. For instance, NSSA appointed its incumbent General Manager after operating for more than five years with an acting head. Since mid 2012, Air Zimbabwe has been operating without a board of directors and the Managing Director has been on an acting capacity for more than a year.
1.2.3 Background to the Case Study Organization: Zimbabwe National Water Authority (ZINWA)

ZINWA is a parastatal set up by the Zimbabwe National Water Authority Act [Chapter 20: 25] and started operating on the 1st of January 2010. The staff were drawn from the then Department of Water Resources Development and the Regional Water Authority. Thus the Regional Water Authority Act [Chapter 20:26] was repelled by the ZINWA Act. The parastatal is headed by a board of directors which reports to the Minister of Water Resources Development and Management. The Chief Executive Officer (CEO) is the head of the parastatal and is an ex-officio member of the board. The ZINWA board is set up according to Section 4 of the ZINWA Act. It comprises of ten people: Chairman, ZINWA CEO, any four people who are renowned for water resources development, management, law or business administration and four other people from not less than five catchment council nominations. One of the people in the first lot of members must be a senior water resource development officer in the MoWRDM. All these appointments are done by the Minister of Water Resources Development and Management.

Below the CEO there are four Directors for Special Projects; Projects and Planning; Ground Water and Drilling Services and Finance. ZINWA is run along the seven major river systems located in the whole of Zimbabwe namely Gwayi (Bulawayo), Manyame (Harare), Mazowe (Harare), Mzingwane (Bulawayo), Runde (Masvingo), Sanyati (Gweru) and Save (Mutare), which are run by Catchment Managers who report directly to the CEO. Figure 1.1 below shows all the seven catchments in Zimbabwe. Apart from the four Directors and seven Catchment Managers there is the Corporate Communications Manager, Audit and Risk Manager, Loss Control Manager, Operations Manager (Head Office), Human Resource Manager and Executive Assistant to the CEO who report to the CEO. Below the Human Resource Manager, there is the Human Resource Development Officer and nine Human Resource officers including seven from all the catchments who report to him.
Figure 1.1: The seven catchments of Zimbabwe and water quality monitoring points.
Source: Adapted from Ministry of Water Resources Management and Development (2009)
The Director Special Projects has a Projects Manager who reports to him. Below the Projects Manager there are two Projects Engineers who report to him. The Data and Research Manager, Planning Manager, Quality Assurance Manager and Designs and Construction Manager report to the Director Projects and Planning. Below the Ground Water and Drilling Services Manager there is the Ground Water Manager, Livewater Manager and Commercial Manager. The Finance Manager and Information Communication Technology (ICT) Manager all report to the Director-Finance. Below the Commercial Manager there is the Business Development Manager.

At each Catchment there is an Operations Manager, Hydrologist, Accountant, Human Resource Officer, Loss Control Officer who report to the Catchment Manager and regarded as heads of various sections. The Operations Manager has Projects, Planning and Operations Engineers who report to him.

According to the ZINWA Act (1998), the functions of ZINWA include the following:

- To provide water to the nation in a cost effective manner.
- To ensure equitable accessibility and efficient use of water resources.
- To assist catchment councils in their functions.
- To provide technical assistance, training and consultancy on a cost recovery basis.
- To operate and maintain water works in order to provide water in bulk to local authorities and reticulated water to consumers on behalf of local authorities who lack capacity to provide this service.
- To undertake research, develop databases and produce maps on water resources.
- To promote co-operative management of internationally shared river basins.
- Advise on water policy and national standards on:
  i. Water resources planning, management and development
  ii. The implementation of water quality and pollution control
iii. Environment protection
iv. Dam safety
v. Hydrology and hydrogeology
vi. Water pricing policy.
The vision of ZINWA is to be a world class stock exchange listed provider of water based lifestyles. Its mission is to competitively provide water related products and services to customers on a sustainable basis. The following are core values of ZINWA: Innovativeness; quality products, dependable, product adequacy, motivated staff, mutual respect, professionalism, transparency, commitment, efficiency, effectiveness.

ZINWA has the following business functions water supply (both clear and raw water); designs and construction; planning; data and research; quality assurance, ground water. These core functions are supported by finance, human resource, audit, corporate communications, ICT and loss control departments. The major income earning activities are selling of raw and clear water and borehole drilling (a subsidiary called Livewater has been registered to carry out this activity). Statutory functions are supposed to be supported by Water Levies which are collected from every water user. Some funds come from consultancy fees on dam design, construction, hydrology and hydro-geology.

Each Catchment is treated like a strategic business unit. Since catchments are the operations functions they are the cash generators for ZINWA and they have to sustain themselves and the Head Office in Harare. Raw water clients for ZINWA include farmers, miners, local authorities, industries and institutions (schools, churches, hospitals) and clear water clients include ordinary residents, businesses, industries, institutions (churches, schools, hospitals), government departments and parastatals.

1.2.3.1 Resources at ZINWA
ZINWA has strategic resources which include educated and experienced staff, infrastructure (dams, canals, water supply stations, boreholes and sewerage systems), water, engineering equipment and various capabilities. It has a staff compliment of 2500 employees and Table 1.1 below gives an analysis of ZINWA staff and their skills:
Table 1.1: Human resource composition of ZINWA

<table>
<thead>
<tr>
<th>SKILL</th>
<th>PROPORTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>65%</td>
</tr>
<tr>
<td>Finance</td>
<td>7%</td>
</tr>
<tr>
<td>Human Resource and Administration</td>
<td>5%</td>
</tr>
<tr>
<td>Information Communication Technology</td>
<td>0.07%</td>
</tr>
<tr>
<td>Public Relations</td>
<td>0.03%</td>
</tr>
<tr>
<td>Loss Control</td>
<td>15.9%</td>
</tr>
<tr>
<td>General</td>
<td>7%</td>
</tr>
</tbody>
</table>

*Source: ZINWA (2012)*

ZINWA has highly technical staff, who have skills in fields such as civil engineering, structural engineering, mechanical engineering, electrical engineering, hydrology and water quality. These employees can do technical work such as plumbing, electrical installations, construction of infrastructure, carpentry, designing of structures, hydrological reports, borehole drilling, map making and motor vehicle repairs. Apart from doing jobs at ZINWA, these skills can be used to execute external consultancy work. More than half of these employees have work experience of at least seven years.

There are more than 200 dams owned by ZINWA with a net capacity of more than 7 000 000ML (ZINWA, 2012). The available water can be used for irrigation, livestock drinking, urban water supply, power generation, fisheries, lodging, boating, photography, wildlife support, manufacturing and cooling. It also owns more than 3 000 boreholes throughout the country and these are used for supplying portable water, irrigation, industrial processes, mining and ground water resources monitoring.

ZINWA has more than 477 portable water supply stations with an installed capacity of 14 600 cubic meters per second (ZINWA, 2012). The stations supply water to about nine hundred thousand households. Table 1.2 below shows a schedule of different types of water supplies owned by ZINWA:
Table 1.2: Treated water supply stations owned by ZINWA

<table>
<thead>
<tr>
<th>WATER SUPPLY SYSTEM</th>
<th>PROPORTIONAL COMPOSITION (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Treatment</td>
<td>27</td>
</tr>
<tr>
<td>Partial Treatment</td>
<td>3</td>
</tr>
<tr>
<td>Borehole</td>
<td>65</td>
</tr>
<tr>
<td>Sand Abstraction</td>
<td>0.5</td>
</tr>
<tr>
<td>Resale</td>
<td>4.5</td>
</tr>
</tbody>
</table>

Source: ZINWA (2012)

A full treatment water supply system involves the treatment of raw water from a river or a dam using sedimentation, filtration and chlorination processes. Sedimentation is a process of capturing all sediments (physical and biological material) in water using Aluminium Sulphate chemical as a flocculant. This process allows all the sediments to settle down leaving the cleaner water to proceed for filtration. Filtration involves passing the water through sand granules so as to trap all material that could be in the water. Chlorination is the final treatment of water where chlorine is used to kill micro-organisms that would have not been screened at sedimentation and filtration. If the water has a bad odour, activated carbon can be used and caustic soda can be used to reduce the pH to its recommended level of being neutral.

Partial treatment usually involves chlorination of the water to eliminate disease causing micro-organisms. This is usually done to water from clean sources such as boreholes, sand abstraction (from a river) or from treatment works (as re-chlorination). Borehole water supply stations do not involve any treatment of water using chemicals since the water will be clean thus is supplied to consumers like that. Sand abstraction water supply systems use water that would have been trapped from sand in rivers. This water is of high quality since the sand from where it would have been abstracted acts as a filter. This water may require some treatment using trace dosages of chlorine. A resale station is one where ZINWA buys water from Municipalities like Harare, Bulawayo,
Gweru and Masvingo and further supply it to government institutions such as Zimbabwe National Army (ZNA), schools and hospitals.

The water supply systems owned by ZINWA are not chemical intensive like those of Municipalities where they use up to nine chemicals like in Harare. Most of them use electricity and some borehole stations run on diesel. Having most of the water supply stations being boreholes allows ZINWA to supply water at affordable rates in huge quantities due to low operating costs.

1.2.3.1 SWOT-Strengths, Weaknesses, Opportunities and Threats Analysis for ZINWA

The following is a detailed Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis for ZINWA (ZINWA, 2012):

**Strengths**
1. National coverage
2. Control of all water resources (surface and ground)
4. Staff with institutional memory and work experience
5. Highly technical staff
6. Committed workforce
7. Stakeholder driven
8. Government support
9. Existence of basic infrastructure/asset base
10. No commercial (financial institutions) debts

**Weaknesses**
1. Inability to effectively market raw water
2. Overstaffing in certain areas
3. Inadequate capacity building programmes
4. Undercapitalisation
5. Lack of maintenance of infrastructure leading to high system losses
6. Ageing equipment
7. Malfunctioning water meters
8. Poor communication
9. Poor debt collection leading to poor cash flow management
10. Mixture of statutory/commercial functions
11. Non compliance to laid-down procedures and regulations

Opportunities
1. Vast natural resources (water) which are available in every catchment as both surface and ground water
2. Versatility of uses of water
3. Availability of ready market for products and services
4. Under-utilised dams (reservoirs) that can be used for irrigation, recreation, livestock production and power generation
5. Limited competition in mandated areas e.g. dams
6. Wide market (geographical) coverage
7. Potential for power generation
8. Untapped markets, e.g. growth points, newly built up areas that have not been connected to water reticulation
9. Diversification-bottled water, activated carbon
10. Use of hard currency which is stable and enables planning and borrowing
11. Possibility of entering into Public Private Partnerships for development of infrastructure
12. Consultancy services
13. Indigenisation and Empowerment Law
Threats

1. Pollution and siltation of water resources
2. Unwillingness to pay for water by users especially newly resettled farmers and government departments
3. Lack of capacity by resettled farmers to use and pay for raw water
4. Public perception of water not as an economic good (water is viewed as a free good)
5. Floods in lower laying parts of the country such as Muzarabani, Kanyemba, Tsholosho, Malipati, Sanyati, Middle Save and Chikwalakwala destroy canals, dams and water supply infrastructure
6. Droughts in parts of the country that are in agro-ecological zones IV and V are mostly in the Southern and Western parts of the country
7. Reduced revenue inflow due to reduced activities in farming areas
8. Controlled and uneconomic water tariffs imposed by central government
9. Lack of capitalization by the shareholders (government)
10. Power outages and surges damage water pumping equipment and reduce the possible volumes of water that can be pumped to consumers.
11. Theft and vandalism of equipment hinder consistent supply of water to consumers.

The SWOT analysis guides the problem statement of the study which is discussed below.

1.3 Problem Statement
As highlighted in Section 1.1 above, when an organisation is using the RBV theory, it employs its resources which are valuable, rare, in-imitable and non–substitutable within a conducive organizational environment (VRIN/O) and core competencies to have a sustainable competitive advantage (Barney, 1991) and thus remain viable. The sustainable competitive advantage arises from dynamic capabilities which are brought about by resources following a VRIN/O model. Thus ZINWA can sustain itself through
unlocking the value in its dams, canals, water supply stations, boreholes, staff and experience and equipment.

In-spite of the benefits of RBV cited above and in Section 1.1 ZINWA is struggling to sustain its operations. ZINWA is surviving on revenue from clear water supplies and raw water supplies to a lesser extent. Little income is coming from water levies to sustain its statutory functions. Its debtors’ portfolio grows by at least 10% every month since government departments are its major consumers in terms of volumes and sales and they do not settle their bills every month. The revenue collected can hardly sustain service provision, replacement of dilapidated infrastructure, expand the existing network or procure new vehicles. Plant and equipment are not being fully serviced and dams are also not well maintained. There are leakages of produced clear water of up to 50% due to the dilapidated infrastructure. Employee salaries are always not to date. However, employees are committed to serving their firm and are full of ideas of how they can realise benefits from the resources possessed by ZINWA.

If the current challenges are not addressed, ZINWA is likely to collapse. There will be no service provision and hence no revenue to sustain it. There will be further losses of water on the dilapidated infrastructure. Some dams may fail leading to destruction of life, stock, crops and infrastructure due to flooding. Workers may not be paid well and this may lead to their industrial action which will also affect service provision. The research problem is therefore to evaluate the use of the RBV theory and come up with recommendations that can be used to solve the challenges being experienced at ZINWA.

1.4 Research Objectives

1. To establish the resources which are owned by ZINWA;
2. To determine if resources possessed by ZINWA are valuable, rare, cannot be imitated by other firms and non substitutable;
3. To establish the core competencies of ZINWA;
4. To find out if ZINWA has been using its resources and core competencies to increase its viability; and
5. To come up with recommendations on how resources possessed by ZINWA can be used to gain value, increase viability and profitability.

1.5 Research Questions
1. What are the resources owned by ZINWA?
2. Are resources possessed by ZINWA valuable, rare, inimitable and non-substitutable?
3. What are the core competencies of ZINWA?
4. How has ZINWA as an organization employed its resources and core competencies to increase its viability?

1.6 Scope of Research
The study focused on ZINWA as the case over a period of six months. The target population and sample comprised of respondents from all over the country.

1.7 Justification
The results of this study will benefit ZINWA, other parastatals, government for policy, the researcher, and the academic fraternity. ZINWA will be able to introspect itself and will have options to help them improve their operations. The recommendations of the study address the current viability challenges at ZINWA using the RBV theory. The study enables full realization of the value of the resources that are possessed by ZINWA through establishment of new uses of these resources.

The recommendations are applicable to other parastatals and government departments to address their viability challenges. Government will be guided by the results to craft management policies for the public sector enterprises and thus enable efficiency in service provision. The research results will provide a guide for government’s allocation of resources to the public sector and ZINWA in particular.
The researcher will benefit from the research through widening his knowledge of the RBV theory and strategic business management in particular. Out of this study the researcher will be able to craft the best RBV model that is applicable to the Zimbabwean environment. This enabled the researcher to become an effective business leader who will be able to lead any organization. The academic fraternity will use the findings of this research to guide them in their future research activities. This unique study of RBV in the public sector of Zimbabwe and ZINWA in particular has results that will even be applied elsewhere for both research and strategic management.

1.8 Research Proposition
The RBV theory did not yield benefits at ZINWA because of the limited knowledge by management on how to apply it.

1.9 Structure of the Study
The study starts with Chapter 1 which introduces the theory behind the study and the background of the case being studied. Chapter 2 outlines the literature on various studies that have been done on the RBV theory including its critics and the management practices in the public sector especially in Zimbabwe. Chapter 3 contains the methodology of the study focusing on the research design, research philosophy, research strategy and data collection. Chapter 4 focuses on data presentation, analysis and interpretation of the results of the study. Conclusions, recommendations, Limitations and areas for further study are detailed in Chapter 5.

2.0 Chapter Conclusion
This Chapter covered the following key aspects of the research study: introduction to the theory behind the study; background to the business macro environment in Zimbabwe; the public sector of Zimbabwe; the case under study ZINWA; research objectives; research questions and scope of the study. This Chapter also analysed the justification of the study, research proposition and then structure of the study. Detail on
the relevant literature that is on the RBV theory of the firm and its application in various firms is covered in the following Chapter 2.
CHAPTER 2: LITERATURE REVIEW

2.1 Introduction
This Chapter is going to explore the relevant literature available pertaining to the study in question. Sharp and Howard (1996) as cited in Saunders, Lewis and Thornhill (2009) give two reasons for reviewing literature. The first one is that it helps the researcher to generate and refine their research ideas. The second reason is that it allows the researcher to criticise the available literature using the current trends and development. Literature review therefore allows the researcher to come up with the best recommendations to solve the problems at hand. This process identifies past and current research on the subject matter so that the researcher’s horizon in the field under study is widened.

The chapter on literature review focuses on research and developments in the field of RBV theory that has been outlined in Chapter 1. The flow of the chapter looks at the RBV theory; resource value; firm capabilities; resource management; benefits of RBV; public sector enterprises and application of RBV; critic of RBV and chapter conclusion. The RBV theory looks at the past trends in the development of the theory, the current research trends and the conditions that are ideal for the application of the theory. Benefits of the use of RBV section dwells on how the firm can benefit from the application of the theory in strategic business management. This Chapter also reviews the operations of public enterprises and the application of the RBV theory in those organizations. There is also a review of various criticisms of the RBV theory including that of the researcher. The researcher gives a conceptual frame work linking the RBV theory, its benefits and what affects the attainment of the RBV benefits. The conclusion highlights a summary of key issues, critique of the literature and the conceptual framework of the study.
2.2 Resource Based View Theory of the Firm

Various authors have written about the RBV theory after it was developed from the theory of firm growth that was developed by Penrose in 1959 (Newbert, 2007). Prior to Penrose’s studies, Ricardo (1817) cited in Sirmon, Hitt and Ireland (2007) argued that superior production factors (resources) generate economic benefits for their owners. He explained that this occurs when the resources have different production levels and the more productive resources are scarce. Makadok (2001) cited in Sirmon, Hitt and Ireland (2007), concluded that Ricardo’s study formed the foundation of RBV.

In her study Penrose focuses on the internal resources of a firm where a firm is viewed as having an administrative organization and a collection of resources (Rizal, 2012). She argues that a firm’s internal and or external growth through acquisitions, mergers and diversification is as a result of the resources which are utilized. The management of the company organizes and mixes up its resources with other external resources and comes up with goods and services that are disposed at a profit (Rizal, 2012). Studies by Rubin (1973) also buttress the concept of the development of the RBV theory. He views firms as bundles before the RBV theory is known by scholars or business strategists (Wernerfelt, 1984). Rubin points out that mere possession of resources does not bring benefits to the firm, but their rightful utilisation brings profitability to the firm. “Firms must process raw resources to make them useful” (Rubin, 1973, p937 cited in Wernerfelt, 1984).

Barney (1985) then develops the RBV theory highlighting the conditions in a firm that enables it and its benefits to the firm. Penrose (1959) describes a firm as a collection of resources and further explains that it is their heterogeneity that gives every firm its unique character. RBV theory hinges on the heterogeneity of the resources amongst competing firms and immobility of resources to a particular firm (Barney 1991, Wernerfelt, 1984). Whilst Penrose (1959) describes resources of the firm to include
infrastructure, human resource, managerial skills as well as entrepreneurial skills, Wernerfelt (1984) goes on to give his version of a firm’s resources. The later author’s definition was that a firm’s resources can either be tangible or intangible assets that are attached to the firm and can be used to develop a firm’s competitive advantage. A tangible resource (financial, physical) is that asset that can be quantified and intangible resources (employee’s knowledge, experiences and skills, firm’s reputation, brand name and organizational systems) are those deeply entrenched in the organisation’s history and all what it has accumulated over time (Liu, Baskaran & Li, 2009). Anonymous (2012a) argues gives a concise description of the RBV theory as that:

“firms possess resources, a subset of which enable them to achieve competitive advantage, and a subset of those that lead to superior long-term performance. Resources that are valuable and rare can lead to the creation of competitive advantage. That advantage can be sustained over longer time periods to the extent that the firm is able to protect against resource imitation, transfer, or substitution. In general, empirical studies using the theory have strongly supported the resource-based view” (p1).

Barney (1991) and Grant (1991) cited in Liu, Baskaran and Li (2012), classified tangible resources into: financial resources; organizational structure; physical resources and technological resources. Three types of intangible resources namely: human resources, innovation resources and reputation resources were classified by Hall (1992) and Grant (1991) in Liu, Baskaran and Li (2009). Since some physical resources such as computers, vehicles and machinery can also be imitated by competitors, it is the valuable human resource attribute such as specialized skills and talents that emerge as a result of routine processes that are difficult to imitate that gives a firm sustainable competitive advantage (Bowman & Toms, 2008). Stiles and Kulvisaechana (2012) quote Becker and Gerhart (1996) and Barney (1991) saying that the two reasons why human resource cannot be imitated are provision of causal ambiguity and path
dependency. “First it is difficult to grasp the precise mechanism by which the interplay of human resource practices and policies generate value…..second, these HR systems are path dependent. They consist of policies that are developed over time and cannot be simply purchased in the market by competitors” (Becker & Gerhart, 1996 p782 cited in Stiles & Kulvisaechana, 2012).

It is clear that the above mentioned physical assets are not unique but are rather expensive therefore not every firm is going to posses them. Thus capital to purchase these physical resources becomes the unique resource (Bowman & Toms, 2008). Firms that have capital and go ahead to purchase sophisticated assets end up having a sustainable competitive advantage over those that cannot afford these assets. According to Massukado-Nakatani and Teixeira (2009), Barney (1997), Kay (1996) and others came up with categories of resources which are listed in the Table 2.1 below:
Table 2.1: Organisational resources categories

<table>
<thead>
<tr>
<th>RESOURCE CATEGORY</th>
<th>DESCRIPTIONS AND INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Capital</td>
<td>- training, experience, judgment and intelligence, controlling and workers insights, amateur and professional work and the management and technical team</td>
</tr>
<tr>
<td>Financial</td>
<td>- all types of financial resources that firms can use to conceive and to implement strategies, for instance, financial loans, financing, invoicing, royalties, assets and rents.</td>
</tr>
<tr>
<td>Physical</td>
<td>- tangible goods-installations, equipment, physical technology used in the company, the organizational plant, natural resources and geographic location.</td>
</tr>
<tr>
<td>Organisational</td>
<td>- corresponds to the organizational structure, the systems of control and co-ordination, planning, organizational culture, internal and external relationships. - organisational architecture: refers to the company’s relationship with other organizations and its joint resources with the public and private sectors.</td>
</tr>
</tbody>
</table>

Source: Adapted from Barney (1997)

According to Wernerfelt (1995), for a firm to have a competitive advantage as a result of their unique characteristics their resources must follow a VRIN (the resources must be valuable, rare, in-imitable and non substitutable) model as highlighted by Barney (1991) in the following paragraph as follows:
**V-Valuable:** the resources should enable the firm to get value from their use through reducing its weaknesses or out-competing others.

**R-Rare:** a valuable resource must be hard to come by. Thus a resource that is unique to a particular firm gives it a competitive advantage over others.

**I-In-imitable:** a resource that is only possessed and controlled by one firm and cannot be imitated by others gives it an advantage over competitors and helps it to create value.

**N-Non-substitutable:** a resource that can be substituted by others can easily have its value degraded as consumers switch to the alternative.

Barney (1991) points out that tangible resources include infrastructure, natural resources, machinery and manpower and intangible resources include managerial skills, knowledge attained by employees over years, entrepreneurial skills and market reputation. Rizal (2012) writes that resources are inimitable if they have strong understood descriptions and are socially complicated. Barney (2005), Alvarez and Barney (2002) cited in Rizal (2012) argue that when a firm’s resources and capabilities are socially complicated, they have chances of becoming sources of sustainable heterogeneity as they are intangible, difficult to comprehend and imitate. The ability of a firm to attain heterogeneous assets depends on past experiences of a manager and is believed to be a path dependent process (Barney, 1991). This thus helps to explain why some resources specific and peculiar to that particular firm. Firms that are entrepreneurial have to own resources that are casually ambiguous so that these resources would be dear and difficult for competitors to imitate (Alvarez & Buseintz, 2001, cited in Rizal, 2012). Wade and Hulland (2004) as cited in Anonymous (2012b) argue that the competitive advantage that is brought about by VRIN resources will lead to sustainability of the firms operations over time. Thus firms that employ the RBV theory will be able to survive under various business environments.
Barney (1991) further develops the RBV theory by giving two important assumptions that will enable resources to have a sustainable competitive advantage to a firm. The first one is that firm resources and capabilities are heterogeneous amongst firms and that resources and capabilities are immobile thus are attached to a specific firm. He further argues that resources and capabilities that are both valuable and rare will lead to competitive advantage. Barney (1991) explains that if the resources are both valuable and rare and if they are also inimitable and non substitutable, they generate sustained competitive advantage. Therefore for a firm to fully realize a sustainable competitive advantage from its resources, the resources have to be valuable, rare, inimitable and non substitutable. Figure 2.1 below simplifies Barney’s (1991) RBV theory.

In summary, resource selection, accumulation and use bring about sustainable competitive advantage, sustainable competitive advantage (Kostopolous, Spanos & Prastacos, 2012). They further highlight that sustainable competitive advantage is based on the firm’s resource heterogeneity. The authors also highlight sustained competitive advantage through a flow diagram in Figure 2.2 below:
Figure 2.2: Sustainable advantage and RBV flow chart.
Source: Adapted from Kostopolous, Spanos and Prastacos (2012)
Brahma and Charkraborty (2011) give authors with a different view of examining which resource gives a firm sustainable competitive advantage. Amit and Schoemaker (1993) gives human resource, Lippmen and Rumelt (1982) response lags, Nelson and Winter (1982) organizational routine, organizational culture (Barney, 1986) and Itami (1987) invisible assets which are difficult to imitate. Although their arguments were considered in some circles as a theory of attaining sustainable competitive advantage from its resources it has not been widely accepted. However, Newbert (2007) argues that Barney’s model on RBV has been accepted through his seminal work which has been fragmented into a wholesome, empirically tested theory. He further reports that firm resources that have attributes in the VRIN model will attain the benefits of RBV discussed below. Steffens and Burgers (2009), explain that Burney in 1995 and 2001 modified the VRIN model into what is called the VRIO model. The VRIO model is outlined below:

**V-** **Valuable**: Is the resource bundle valuable to the firm for exploiting opportunities in the market?

**R-** **Rare**: Are the resources rare among competing firms?

**I-** **In-imitable**: Are the resources hard (or expensive) for other firms to duplicate or substitute with other resources?

**O-** **Organisation**: Is the firm able to exploit the potential of these resources and appropriate economic benefits from the market opportunity?

The VRIO model brings in the concept of the firm’s competences and capabilities which will be discussed later in this chapter.

Therefore, the RBV analyses the relationship between the internal characteristics and the company’s performance on the market with rivals and is related to the studies that focus on the SWOT-strengths, weaknesses, threats and opportunities (Massukado-Nakatani & Teixeira, 2009 & Rizal, 2012). However, there are still arguments on the need to carry out studies on how firm resource heterogeneity comes about and to
understand how resources change to cause some competitive advantage to a firm (Lockett, Thompson & Morgenstern, 2009).

Recent research in RBV theory put thrust on elements of dynamic capabilities (Eisenhardt & Martin, 2000; Teece, Pisano & Shuen, 1997; Kogut & Zander, 1992 cited in Liu, Baskran and Li, 2009). Teece et al. (1997) cited in Liu, Baskran and Li (2009) view dynamic capabilities as a firm’s ability to develop and use basic capabilities to cope with the changing business environment. The shift to dynamic capabilities eliminates the VRIN model suggested by Barney (1995) because the emphasis of the business leader from trying to protect sources of the present competitive advantage to continuously creating resources and/or capabilities to yield future competitive advantages (Winter, 2003 cited in Liu, Baskran & Li, 2009). Kraaijenbrink (2012) emphasizes that RBV should focus on resource functionality rather than value alone. He thus argued that it is the functionality of a resource that gives it its value and he gave four generic types of functionality which are: resource suitability; resource combinability; resource fecundity and resource durability.

2.3 Resource Value
Since it is very difficult to explain how firms use resources and capabilities to create competitive advantage (Helfat & Peteraf, 2003 cited in Sirmon, Hitt & Ireland, 2007); the resource management process will help to explain the process. According to Connor (1991) cited in Sirmon, Hitt and Ireland (2007), the primary goal of business is creating and maintaining value of the shareholding. Ireland, Hitt and Sirmon (2003) argued that RBV suggests that a firm’s resources drive value via creation of competitive advantage (Sirmon, Hitt & Ireland, 2007). Possession of valuable and rare resources forms the basis of value creation. At firm level value creation starts with providing value to customers. When a firm manages to provide better utility to customers than its competitors, it enjoys a competitive advantage (Sirmon, Hitt & Ireland, 2007) and thus
increased profits. Value creation is attained when a firm manages to balance the process in and between each resource management part so that the difference between the firm’s costs and the price paid by consumers for the product or service is optimized (Sirmon, Hitt & Ireland, 2007). Thus value is created only when resources are evaluated, manipulated and assigned appropriately according to the prevailing business environment (Lippman & Rumelt, 2003 cited in Sirmon, Hitt & Ireland, 2007).

A study done by Kraaijenbrink (2012) dissects how resource functionality brings about the value of a resource. He reports four important attributes of a resource that makes it valuable thus bring about sustainable competitive advantage to a firm that possesses it. For a resource to be suitable for its function, it has to be able to meet customer requirements and is well explained in customer based notion of Peteraf and Bergen’s (2003) studies. Kraaijenbrink (2012, p4) defines resource suitability as “the extent to which a resource contributes to the achievement of a particular goal”. This definition is tricky in that RBV emphasizes on lowering costs and increasing benefits whilst firm focus may be providing a better working condition for its employees rather than to lower costs or improve profits. Thus a firm may purchase a state of the art machine that may not be necessarily lowering, costs, increasing customer satisfaction and increasing profits but also to provide a better working environment for its employees.

Resource combinability is defined by Kraaijenbrink (2012, p4) as “the extent to which a resource can be effectively combined with other resources a firm has access to”. Good entrepreneurs should be able to combine and integrate resources so as to realize value from them. Thus value is derived from resource complementarity, relatedness and co-specialisation (Locket et al., 2009). In addition to the suitability of a resource for a specific firm goal, its value is also realized as a result of its combination with other resources. Primrose (1959) emphasizes the role of managers in combining resources to produce profitable products and services. Resource fecundity is “the extent to which a
resource can be used in different ways and for different purposes” (Kraaijenbrink (2012, p4). The author further reports that value attained through this is due to the adaptive nature of resources which are either specific or general to their tasks. If they are general then they can be used for various purposes whilst the specific ones will be used for a certain task. Multi-purpose resources tend to have a higher value than the specific ones as they provide flexibility in service and product provision (Kraaijenbrink, 2012).

The fourth resource functionality is durability and is defined by Kraaijenbrink (2012, p5) as “the extent to which a resource continues to exist in the course of time without significant deterioration”. He attributes deterioration to obsolescence, counter by rivals and exhaustion of the resource and thus the more a resource can withstand deterioration the more durable and valuable it is. Locket et al., (2003) cited in Kraaijenbrink (2012), give asset erosion as the shrinkage of the firm’s stock of intangible assets equivalent to balance sheet depreciation of tangible assets. Therefore durable resources do not require a lot of maintenance thus have a high value.

2.4 Resource Management
According to Sirmon, Hitt and Ireland (2007, p273), resource management is “the comprehensive process of structuring the firm’s resource portfolio, bundling the resources to create capabilities and leveraging those capabilities with the purpose of creating value for customers and owners”. They described structuring as involving using processes such as acquiring, accumulating and divesting to attain the resources that the organisation will use for bundling and leveraging’s sake. Bundling is attributed to processes such as stabilizing, enriching and pioneering used to combine resources to form capabilities (Sirmon, Hitt & Ireland, 2007). Leveraging involves mobilizing, coordinating and deploying used to take advantage of prevailing market advantages (Sirmon, Hitt & Ireland, 2007). Thus the purpose of leveraging is the use of capabilities
to build solutions for incumbent and future customers (Kazanjian, Drazin & Glynn, 2002 cited in Sirmon, Hitt & Ireland, 2007).

The external environment heavily determines how resources should be managed in order to maintain their value (Sirmon, Hitt & Ireland, 2007). This process of resource management makes the RBV dynamic in the sense that resource performance will be matched with the external and not only the internal environment of the firm. Organizational learning is important for resource management under dynamic conditions (Zahra & George, 2002 cited in Sirmon, Hitt & Ireland, 2007). It is the “acquisition of new knowledge by actors who are able and willing to apply that knowledge in making decisions or influencing others in the organization” (Miller, 1996, p486 cited in Sirmon, Hitt & Ireland, 2007). Learning under dynamic conditions is unique in that it considers previous results that are important for creating and maintaining value through development (Sirmon, Hitt & Ireland, 2007). Figure 2.3 below illustrates the dynamic resource model of value creation and the resource management processes are explained by Table 2.2 below:
Figure 2.3: A dynamic resource management model of value creation.
Source: Sirmon, Hitt and Ireland (2007)
### Table 2.2: Resource management processes and distinctions

<table>
<thead>
<tr>
<th>Components/sub processes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structuring</td>
<td>Refers to management of the firm’s resource portfolio</td>
</tr>
<tr>
<td>Acquiring</td>
<td>The process of purchasing resources from strategic factor markets</td>
</tr>
<tr>
<td>Accumulating</td>
<td>The process of developing resources internally</td>
</tr>
<tr>
<td>Divesting</td>
<td>The processes of shedding firm controlled resources</td>
</tr>
<tr>
<td>Bundling</td>
<td>Refers to combining the firm resources to construct or alter capabilities</td>
</tr>
<tr>
<td>Stabilizing</td>
<td>The process of making minor incremental improvements to existing capabilities</td>
</tr>
<tr>
<td>Enriching</td>
<td>The process of extending current capabilities; although the degree of enrichment can vary it extends beyond keeping skills up to date</td>
</tr>
<tr>
<td>Pioneering</td>
<td>The process of creating new capabilities with which to address the firm’s competitive context</td>
</tr>
<tr>
<td>Leveraging</td>
<td>Refers to the application of a firm’s capabilities to create value for customers and wealth for owners</td>
</tr>
<tr>
<td>Mobilizing</td>
<td>The process of identifying the capabilities needed to support capability configurations necessary to exploit opportunities in the market</td>
</tr>
<tr>
<td>Co-ordinating</td>
<td>The process of integrating identified capabilities into effective yet efficient configurations</td>
</tr>
<tr>
<td>Deploying</td>
<td>The process of physically using capability configurations to support a chosen leveraging strategy, which includes the resource advantage strategy, market opportunity strategy or entrepreneurial strategy</td>
</tr>
</tbody>
</table>

*Source: Adapted from Sirmon, Hitt and Ireland (2007)*
2.5 Firm Capabilities (Core Competencies) and Resource Based View Theory

Since mere resource possession does not translate into sustainable strategic competitive advantage for firms, it is the firm’s competence and capability that brings benefits from strategic resources. Thus, the RBV theory strongly links with the theory of firm capabilities. Hitt et al. (2001), cited in Liu, Baskaran and Li (2009) defined capability as the firm’s capacity to deploy resources that have been purposely been integrated to achieve a desired state. Grant (1991) cited in Soto-Acosta and Merono-Cerdan (2008), describes capabilities as what a firm can do as a result of a combination of its resources working together. Capabilities involve complex patterns of co-ordination between people and between people and other resources and between a firm and other firms (Grant, 1991 cited in Soto-Acosta & Merono-Cerdan, 2008). Soto-Acosta and Merono-Cerdan (2008), give the following as the key attributes of capabilities:

a. Capabilities are rooted in process and business routines, because it is capability that enables the activities in a business process to be carried out.
b. Capabilities are firm-specific, while an ordinary resource is not. Because of this firm specificity, ownership of a capability cannot easily be transferred from one firm to the other.
c. The primary purpose of a capability is to enhance the productivity of the other resources that the firm possesses.

Capabilities enable the firm to create and exploit external opportunities and develop sustained advantages when used with insight and adroitness (Lengnick-Hall & Wolff, 1999, cited in Liu, Baskaran & Li, 2009). Acar and Zehir (2012) distinguish a firm resource and a firm capability. They describe an operational resource as value or a production input which is owned, controlled or reached by the firm permanently to some extent and capability (sourced from the resource base of the firm) as the capacity of a firm perform, in a usual way, the coordinated tasks and use of the organizational resources in order to attain specific targets.
Since capabilities are specific to firms and strategic business units and emerge from business process and applications of the firm basing on repetition, it is not easy for competitors to imitate them (Acar & Zehir, 2012). According to Acar and Zehir (2012), capabilities are also derived from the available strategic resources that are specific to a firm. Capabilities thus mark a form of some identity of the organization by its employees and customers. Hitt and Ireland (1985) cited in Acar and Zehir (2012), reported that firms or strategic business units that developed and managed their resources and capabilities better than their competitors would achieve superior performance. Makadok (2001) cited in Ahn, Gray and Collier (2012, pg116), described a capability as “a special type of resource- specifically, an organisationally embedded, non-transferable firm specific resource whose purpose is to improve the productivity of the other resources possessed by the firm”. Therefore internal capabilities cannot be purchased but rather should be built by the firm (Makadok, 2001 cited in Ahn, Gray & Collier , 2012) and combined with external partnerships they are viewed as a flexible innovation system (Su, 2009).

Liu, Baskaran and Li (2009), describe firm capability as being made up by the type of processes, evolution, context-dependence and path dependence in a firm’s processes. They integrate the resources and activities which directly lead to performance of a firm, thus echoing that it is not the possession of resources that brings competitive advantage but how the resources are used to derive economic benefits. Penrose (1959) points out that the benefits of resources are a function of how they are used. Several researches by Helfat and Petrak (2003); Winter (2000); Eisenhardt and Martin (2002) and Karim and Mitchell (2000) cited in Liu, Baskaran and Li (2009), show that capabilities evolve through interactions among tangible and intangible resources by the process of organizational learning. They elaborate that capabilities are embedded in a firm and its structure and they must have strategic fit with the firm’s strategy.
Rumelt (1984), Wenerfelt (1984) and Barney (1991) cited in Acar and Zehir (2012) highlighted that RBV defines capabilities as a pool of internal resources which is strategically important to create competitive advantage. However some authors resorted to the use of concrete or abstract resources of a firm for execution of a duty or action in order to enhance business performance (Acar & Zehir, 2012). Grant (1991) in Acar and Zehir (2012) exonerated human resources from intangible resources and defined capabilities as a complex pattern which is learnt by repetition of tasks on the basis of co-ordination between people and resources. Peteraf (2003) defines resource based firm capabilities as the ability of performing tasks which require co-ordination to reach a certain result and use of organizational resources.

Won (2010) reports that Helfat and Peteraf (2003) highlighted the concept of dynamic RBV which is based on the dynamic capabilities of a firm. Dynamic capability is defined by Teece, Pisano and Shuen (1997) cited in Won (2010 p6) as “the firm’s ability to integrate, build and reconfigure internal and external competences to address rapidly changing environments”. They explained that a capability is explained as having a life cycle which is the founding stage, development stage and maturity and the direction of capability can change with the strong impact of various factors, such as managerial decisions, changes in government policy, demand and technology. The path followed by a capability is determined by retirement, retrenchment, replication, renewal, redeployment and recombination of resources (Helfat & Peteraf, 2003 cited in Won, 2012). This is thus the basis for various scholars for arguing that RBV can explain competitive advantage and disadvantage overtime together with dynamic capability (Won, 2010).

2.6 Benefits of RBV

Tywoniak (2007) generalizes the usefulness of RBV as being in terms of generating an understanding and providing a guide for strategy mapping in a firm. However she quotes Barney (2001) explaining the general benefits of RBV as “resource –based logic
can help managers more completely understand the kinds of resources that help generate sustained strategic advantages, help them use this understanding to evaluate the full range of resources their firm posses, and then exploit these resources that have the potential to generate sustained competitive advantage”. According to Tywoniak (2007), RBV gives the following pointed questions to managers:-

i. What are our core competencies?

ii. How can we create stakeholder value with the resources we have in our environment?

and it provides a systematic way of assessing resources and competencies in response to external demands.

According to Brahma and Charkraborty (2011), a firm that is going to enjoy the benefits of the RBV should identify its strategically relevant resources and capabilities which are valuable, rare, inimitable and non-substitutable. These will enable the firm to implement a strategy to generate sustainable competitive advantage (Barney, 1991). Warnerfelt (1989) as cited in Brahma and Charkraborty (2011), argues that all the resources that abide by the VRIN model are known as critical resources and Barney (1991), says that these resources help a firm to participate in its market relatively more efficiently (more economically) and effectively (better satisfy customer wants). From these arguments it is clear that for a firm to gain competitive advantage it has to create greater economic value to the customers as compared to the least efficient competitor capable of breaking even (Peteraf, 1993 and Peteraf & Barney, 2003 as cited in Brahma & Charkraborty 2011). Thus economic value is generated from the efficient use of resources which enables the firm to produce greater benefits for a lower cost (Brahma and Charkraborty, 2011). When a firm is using RBV it competes in the market either by offering differentiated products or by producing at a lower cost relative to its competitors (Conner, 1991 as cited in Brahma & Charkraborty 2011). Implementing strategies based
on the RBV hence enables a firm to be efficient thus out-competing its rivals through low cost and differentiation.

A study done by Di Toma (2011) on managing resources for value creation whilst addressing the role of corporate governance in a firm, shows that a firm can realize value from the resources it posses and make them competitive. Sharma and Vredenburg (1998) cited in Frackiewich-Wronka and Maekowska (2011) argue that resource based strategies may become a solution for firms looking for their own ways to develop and gain competitive advantage in a global economy where firms are competing for cutomers.

Powell (2001); Priem and Butler (2001) and Rouse and Daellenbach (2002) cited in Karthikeyan, Bhagat and Kannan (2011) report that RBV theory is hinges around the concept of outsourcing a firm’s non core functions. They carried out a study where they used RBV as a guide to making human resource (HR) outsourcing decisions. Outsourcing of low value added (transactional and operational) HR activities allows HR managers and sections to concentrate on strategic activities that are more important for the success of the firm. The study reveals that what is core and non core is different in each firm. Some firms considered recruitment as core whilst others considered training as important for attaining their strategic HR activities. Thus with each firm the same HR activity can appear anywhere on the core and non-core scale (Karthikeyan, Bhagat & Kannan, 2011). The right outsourcing decisions will therefore be made by closely looking at a firm’s strengths and weaknesses thus conquering with the RBV theory. Stiles and Kulvisaechana (2012) report that RBV has enabled the convergence of strategy and human resource management to take occur thus emphasising the importance of people to strategic business management.
In a study carried out by Ahn, Gray and Collier (2012) on the use of RBV, agglomeration and cluster formation models to assess innovation and technology transfer in New Zealand; it is reported that RBV can be extended to the context of technology transfer. They argue that the theory enables detailed analysis of the capabilities required to translate scientific ideas into commercial innovations which in turn bring a firm’s competitiveness. In other words RBV enables firms to unlock the value that is embedded in scientific knowledge and resources.

In studies carried out by Soto-Acosta and Merono-Cerdan (2008) to analyse e-business value creation from a resource based perspective, it emerges that there is a strong relationship between e-business capabilities and e-business value. Firms with superior ICT capability do have superior firm performance (Bharadwaj 2000, Santhanam & Hartono, 2003, cited in Soto-Acosta & Merono-Cerdan, 2008). Thus even if firms do possess the same ICT they may have different profitabilities due to their differences in information systems capabilities. RBV theory thus enables ICT firms to determine their source of competitiveness.

Mac and Bhaird (2012), report that RBV provides prescriptions to finance practitioners. The first importance is that it stresses the value of managerial skills of the Chief Finance Officer/Finance Director, which had been acquired through years of vast experience. These financial management skills (intangible) are important for a firm to attain sustainable competitive advantage and if it is not available should be outsourced. Secondly, Mac and Bhaird (2012) emphasise that the importance of reinvesting finance generated in the organization in positive Net Present Value (NPV) projects, rather than withdrawing the funds for alternative investments with a risk of illiquidity and inadequate capital.
Kostopoulos, Spanos and Pratacos (2012) report that RBV provides an insight into innovation management. They further elaborate that the innovation process is determined by the availability of different resources in an organisation. According to Damanpour (1991) cited in Kostopoulos, Spanos and Pratacos (2012, p7), innovation is “an internally generated or externally purchased device, system, policy, process, product or service that is new to the adopting organization”. Kostopoulos, Spanos and Pratacos (2012) argue that RBV reflects a way of organizational change that comes about as a result of either changes in its operating environment or in preparation for an anticipated change in the business environment.

2.6.1 RBV and Innovation
Firm resources and capabilities are the determinants of a firm’s capacity for innovation (Kostopoulos, Spanos & Pratacos, 2012). They further report that organisational resources are combined and transformed by capabilities to produce innovative ways of competitive advantage. Kostopoulos, Spanos and Pratacos (2012) report that a firm’s capacity to innovate is influenced by three main categories of resources namely: financial (internal/external funds); technical (ICT systems, engineering equipment) and intangible (human, knowledge).

According to Kostopoulos, Spanos and Pratacos (2012) financial resources are crucial for carrying out research and development (R & D), thus a firm that possesses financial resources is in a better position to innovate new products and services than that that does not have them. Unique, diversified and differentiated products and services can only be made using sophisticated technology, therefore technical resources are crucial for a firm to be innovative (Song & Perry, 1997 in Kostopoulos, Spanos & Pratacos, 2012). Intangible resources in the form of human capital are crucial in making R & D a success thus promoting innovation. These are usually valuable, rare, cannot be imitated by competitors and cannot be substituted (Barney, 1991 cited in Kostopoulos, Spanos & Pratacos, 2012) since they are firm specific. Kostopoulos, Spanos and Pratacos,
(2012) further report that the Knowledge Based View (KBV) theory of the firm emerging from the RBV theory is based on human capital as an intangible firm resource. Thorough understanding of the firm and its stakeholders is also important to enable an entrepreneur to provide innovative solutions to an organization (Kostopoulos, Spanos & Pratacos, 2012). Knowledge of the firm enables the strategist to come up products and services that the firm is able to produce whilst meeting customer requirements.

The availability of financial, technical and intangible resources is not adequate to bring out innovation in a firm but rather the firm must possess some capabilities to enable it to come up with unique products and services (Kostopoulos, Spanos & Pratacos, 2012). They further highlight that entrepreneurship, organizational learning, sense and response, marketing skills and dynamic capabilities as firm capabilities that are ideal to convert resources into innovative outputs. Drucker (1985) cited in Kostopoulos, Spanos and Pratacos (2012) reported that there is a strong relationship between innovation and entrepreneurship. An entrepreneur is the one who drives how resources are chosen, combined and deployed in order to come up with unique and differentiated products and services. From organizational learning, firms are able to come up with a better understanding of firm processes thus are able to come up with innovative solutions. Sense and response capabilities refer to the firm’s ability to quickly foresee trends in the business environment and come up with the corresponding ideal changes using the available resources (Kostopoulos, Spanos & Pratacos, 2012). Quinn (200) cited in Kostopoulos, Spanos and Pratacos (2012), argued that the sense and response skills are crucial for continuous innovation.

Marketing skills have been embraced as critical in attaining innovation in a firm and this has been confirmed by several authors (Kostopoulos, Spanos & Pratacos, 2012). Marketing as an interface between the customers and the firm, feeds information well to the R & D which results in appropriate innovation. Dynamic capabilities which were
explained by Teece et al. (1997) cited in Kostopoulos, Spanos and Pratacos (2012), as the firm’s ability to integrate, build and reconfigure internal and external competencies to quickly address changing business environment. Integration, learning and transformation are the fundamental dynamic capabilities that are essential for innovation (Kostopoulos, Spanos & Pratacos, 2012).

After carrying out a study on identifying the critical linkages of innovation and RBV, Kostopoulos, Spanos and Pratacos (2012, p12) came up with the following five conclusions:

1. Based on RBV, innovation comes from firm analysis and use of firm resources and core competencies.

2. Organizational resources and capabilities are important for coming up with innovation in a firm. Thus RBV triggers the innovation process.

3. A firm’s innovation hinges on the heterogeneity of resources which the RBV focuses on. This then gives a firm some sustainable competitive advantage.

4. Dynamic capabilities enable a firm to use its resources to innovate ahead of its competitors, thus making use of the RBV theory.

5. RBV guides on how innovation comes about innovations whilst innovation enables a firm to rejuvenate its assets. This mutual relationship enables a firm to develop valuable products or services and unique and differentiated assets which cannot be easily imitated by competitors.
2.7 Public Sector Management and RBV

According to Frackiewich-Wronka and Maekowska (2011), the key to success of public organizations is building a strategy based on intangible resources they own to satisfy the needs of critical stakeholders (public, government, suppliers, financiers). They describe the primary goal of a public organization as that to create public value by pursuing its mission and meeting the electoral mandate. The authors highlight that of late public firms have moved away from the philosophy of management based on bureaucracy to market oriented and results driven systems. The main thrust of the new management systems is to enhance stakeholder value, a concept which is not very much pronounced in the public sector. Thus new challenges of the leadership emerged. There came a need to involve employees in strategy formulation and implementation and an increased awareness of the firm’s resources (Frackiewich-Wronka & Maekowska, 2011). They further report that the tall hierarchical structures are being replaced by more effective leaner structures.

Frackiewich-Wronka and Maekowska (2011) indicate that the key to success of a public organization is to identify and reinforce a strategic ability to create maximum value for customers whilst keeping costs as low as possible. They further highlight that this has been very impossible under growing expectations as populations increase and increased demand in high quality service from the public as stakeholder expectations can only be met through the use of resources at the public firm’s disposal. Bryson (2004) cited in Frackiewich-Wronka and Maekowska (2011), claims that successful strategies in public organizations occur where the firm is able to identify what the stakeholders require from the given resources.

Byron, Ackerman and Eden (2007) argue that the key to the success of public organizations is their ability to identify and build capacity, especially their distinctive competencies in order to produce the best value for key stakeholders. Distinctive competence is valuable firm capacity and resource (Selzinick, 1957 cited in Byron,
Ackerman & Eden, 2007). Selzinick (1957) believed in that the organization has to identify, invest in, and protect its distinctive competencies.

In a research conducted in Brazil entitled “Resource Based View as a Perspective for Public Tourism Management Research: Evidence from Two Brazilian Tourism Destinations” by Massukado-Nakatani and Teixeira (2009), it emerged that resource possession is key to the success of public tourism in Brazil. They concluded that the important factor for the success of public tourism is to invest in tourist infrastructure and training of people who work in the tourism industry.

2.8 Critique of Resource Based View Theory
Although there is a lot of literature on the RBV as a good model for strategic management, there have also been some critics of this work. Some of the critics are that RBV is static, it does not show how resource possession brings about sustainable competitive advantage, it does not show resource heterogeneity comes about, it is internal, it is not robust and lie that firms own resources. Apart from critiques done by other authors, the researcher later on highlights how he criticises the RBV theory.

Newbert (2007) argues that the RBV theory does not possess a cumulative body of work showing how firms differ in their resource bases. He also highlights the static nature of Barney’s (1991) RBV theory. Priem and Butler (2001, p33) as cited in Newbert (2007, p123) argue that “although the RBV began as a dynamic approach……..much of the subsequent literature has static in the concept”. They even highlighted that RBV according to Barney (2001, p33) “the process through which particular resources provide competitive advantage remain in the black box”. This shows the antagonism between resource ownership and exploitation thus dismissing the myth that once a firm owns resources it will automatically develop a sustainable competitive advantage based on them.
Newbert (2007) also cites Mahoney and Pandain (1992, p365) saying “a firm may achieve rents not because it has better resources, but rather the firm’s distinctive competence involves making the better use of its resources” . Their argument is that firms that make the best use of their resources are those that allocate them in a way that their productivity and financial yield are maximized. Peteraf (1993), Hendersen and Cockburn (1994) cited in Newbert (2007) echoed the same sentiments with Mahoney and Pendain (1992) and argue that to attain a competitive advantage, a firm’s resources must be properly leveraged and managed. This prompted a lot of studies pertaining to the processes to which resources must be subjected in order to exploit their latent value such as core capabilities (Leonard-Barton, 1992); competences (Fiol, 1991, Reed & De Fillipi, 1990); combinative capabilities (Kogut & Zander, 1992); transformation-based competencies (Lado, Boyd & Wright, 1992); organizational capabilities (Russo & Fouts, 1997) and (Amit & Schoemaker, 1993) cited in Newbert (2007). RBV thus has to elaborate the link between the management of resources and creation of value (Sirmon, Hitt & Ireland, 2007).

Armstrong and Shimizu (2007) find only little support for the key aspects of the RBV that relate resource characteristics to sustained profitability. Foss and Stieglitz (2012) report that Arend (2006) even argues that:

“... there are no satisfactory empirical tests of the RBV. No paper or collection of related papers measures the benefits specified by RBV theory; adjusts for the costs of the resources; provides evidence that resources meet the RBV criteria; and controls for the influence of higher-level resources. Moreover, the adequacy of testing has not improved over the last 10 years. If empirical testing does not alter its approach, the RBV will be in increasing jeopardy.” (p40)

Helfat and Peteraf (2003) cited in Won (2012), criticize RBV theory in that it highlights sustained competitive advantage of firms derived from heterogeneous resources, it does not show how the resource heterogeneity has evolved. RBV use subjectivity in
ascertaining the heterogeneity of resources and this is weak in that it limits its applicability to a newly changed environment and makes it non dynamic. Acar and Zehir (2012), argue that there is no defined measurement methodology that is reliable for quantifying resource based business capabilities.

Liu, Baskran and Li (2009), give two limitations to the RBV theory. Firstly, it does not capture all the essences of competitive advantage of firms. RBV does not show why and how some firms rather than others accumulated valuable and inimitable resources and really what made these resources valuable and inimitable (Lazonick, 2002 cited in Liu, Baskran & Li, 2009). Others (Helfat & Peteraf, 2003 cited in Liu, Baskran & Li, 2012) argued that for RBV to explain competitive advantage it has to trace the evolution of resources and capabilities that form the basis of competitive advantage. The second argument is that RBV focuses on internal processes and ignores the external environment of the business. Thus a comprehensive strategic model should take cognisance of both internal and external elements such as competition, customers, suppliers and governance.

Although RBV talks about efficiency in production Priem and Butler (2001) as cited in Foss and Stieglitz (2012) argue that there are demand-side aspects of value creation that it differs from. They argue that for any transaction, created value is the difference between the selling price and the underlying costs of production. The authors conclude that RBV essentially bases on the demand side by only focusing on competitive product markets it neglects an important part of value creation, as well as those resources (e.g. advertising capabilities) that are valuable because they can influence the demand-side of value creation. Bowman and Toms (2008) highlight that according to Miller and Shamisie (1996) and Makadok and Coff (2002); the RBV theory cannot be fully explained without talking about the theory of value. Value is what is derived from the use of strategic resources, thus RBV theory on its own is not a comprehensive model.
Whilst the RBV theory acknowledges the presence of heterogeneity of resources which are unique amongst firms, it does not give a model firm that has resources that meet the VRIN model (Bowman and Toms, 2008). RBV also generalizes the VRIN model across all firms thus contradicting its notion of firms having heterogeneous resources and capabilities (Robinson, 2008). This means that the benefits attained by one firm are likely to differ from those attained by the other and these benefits cannot be easily quantified. Bowman and Toms (2008), cite Priem and Batlet (2001) and Carte et al. (2008) critising RBV as it cannot identify unique resources particularly difficult to attribute clearly superior performance to specific activities or assets. They argue that resources exist in configurations with complex interactions between resources some synergistic and others being antagonistic thus making it difficult to identify the unique ones.

Toms (2010) reported that the elements of value and accountability mechanisms are the two missing elements in the RBV theory. He argues that accounting provides mechanisms for understanding resource creation, their value and reporting. Thus the quantification of resource value and profits are necessary components of RBV. Collins and Montgomery (1997 cited in Toms (2010) reported that a resource is valuable when it is demanded by customers, when it cannot be replicate by competition and when the profits they generate are captured by the firm.

**2.9 Chapter Conclusion**

This Chapter looks at the available research work on the RBV theory. It also highlights the benefits of RBV which are efficiency in product utilisation, differentiation of products and services and overall sustained competitive advantage for firm resources which conform to the VRIN and later VRIO models. RBV enables firms to outsource or off-shore non core activities and thus focus on core issues and is reinforced by
entrepreneurial managers. The Chapter exposes that it is not the possession of resources that follow the VRIN or VRIO model but rather it is how the resources are utilized to attain sustained competitive advantage. Thus capabilities emerge as the later source of competitive advantage rather than mere possession of valuable, rare, inimitable and non substitutable resources and this is discussed in its own section. Literature is reviewed on how and where RBV has been used in the public sector elsewhere outside Zimbabwe.

The RBV theory does not address the challenges that are being faced by the public sector in Zimbabwe particularly ZINWA that is under study as cited in Chapter 1. Therefore a study to evaluate the use of the RBV theory in the public sector of Zimbabwe concentrating on ZINWA as a case and basing the research on the conceptual frame work explained below and the methodology in Chapter 3 is necessary. The conceptual framework discussed below shows how the researcher is going to evaluate the use of the RBV theory in the public sector of Zimbabwe using ZINWA as a case study. The purpose of the conceptual framework is to inform the rest of the design—to help the researcher to assess and refine their goals, develop realistic and relevant research questions, select appropriate methods, and identify potential validity threats to research conclusions. The conceptual framework helps the illustration of the research study using the independent variables, dependent variables and the exogenous factors which affect this interaction. These can be represented diagrammatically through what are called conceptual maps (Miles and Huberman (1994, p18) as cited in Maxwell (2004)). Figure 2.4 below illustrates the conceptual framework of this study which the methodology in Chapter 3 is vested on:
Figure 2.4: The conceptual framework of the research study to evaluate the use of RBV in the public sector of Zimbabwe: the case of ZINWA.
CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction
The previous Chapter focused on the relevant literature on RBV theory and its application especially in public organisations. This Chapter explores the methodology behind the study on evaluating the use of the RBV theory in the public sector of Zimbabwe using ZINWA as a case study. Saunders, Lewis and Thornhill (2009), refer to research methodology as the way a research should be undertaken. The first section looks at the research design. There is then a discussion philosophy behind the study followed by the research strategy that has been followed. The last section looks at how the data was collected, analysed, presented and interpreted in the following Chapter 4.

3.2 Research Design
According to Yin (2008), a research design is the logic that relates the data to be collected (and the conclusions to be drawn) to the research questions. It thus helps to show how the research progresses from the questions to be answered to the conclusions drawn at the end. Nachmias and Nachmias (1992) cited in Yin (2008), gave the following definition of the research design with some emphasis added by the author:

“guides the investigator in the process of collecting, analyzing and interpreting observations. It is logical model of proof that allows the researcher to draw interferences concerning causal relations among the variable under investigation”

(p77-78)

Saunders, Lewis and Thornhill (2009) report that a research design is the general plan of answering research questions. They further highlight that a research design should contain clear objectives, sources of data, the likely constraints and the ethical issues to be taken note of in the study. Yin (2008) reports that a research design of a case study contains the following key components: study questions; propositions; units of analysis;
logic linking data to propositions and criteria for interpreting findings. In this study the research questions are outlined in Section 1.5 and are related to the basis for the research objectives listed in Section 1.4. The proposition of this study is that: the RBV did not yield benefits at ZINWA because of the limited knowledge by management on how to apply it and is given in Section 1.8. The data was collected from ZINWA employees, management and board members as outlined in section 3.4 below. The constraints encountered are articulated in Chapter 5.

3.3 Research Philosophy
There are three outstanding philosophies of research given by Saunders, Lewis and Thornhill, 2009), namely positivism, interpretivism and realism. Positivism takes a stance of working with observable social or natural reality; the researcher will be an object analyst and the outcomes are quantitative. The research works with observable variables with results that are law-like similar to those attained in physical or natural science (Remenyi et al., 1998 cited in Saunders, Lewis & Thornhill, 2009). The authors also reported that in this instance the researcher is independent of the variables under investigation. There is use of a well structured methodology that enables collection of data for analysis.

On the other hand interpretivism does not allow for generalization of observations as in the positivism approach and acknowledges that things are ever changing in business and society and seeks to find out how and why the changes occur (Saunders, Lewis & Thornhill, 2009). This thus takes a qualitative approach and would be suitable for business research. It recognizes the importance of understanding people’s socially viewed interpretations and meanings.
Realism is described by Saunders, Lewis and Thornhill (2009) as a research philosophy that accepts the existence of social forces and processes that are independent from people and affect the way they behave without them noticing. It does not accept that people can be studied as objects unlike in the positivism approach; thus is mainly used for studies of human subjects and the way they behave.

3.3.1 Quantitative versus Qualitative Research Philosophy

Quantitative research philosophy is related to the positivism philosophy whilst qualitative philosophy is more associated with interpretivism and realism research philosophies (Saunders, Lewis & Thornhill, 2009). Although these philosophies are different they are also similar in some aspects. These attributes are well spelt out in data collection and analysis methods (Neuman, 2006).

According to Neuman (2006), inference is done from data collected from empirical details of social life in the two scenarios. Adequate data collected from respondents (society) is used to come up with conclusions. However, data adequacy in quantitative style hinges on the number of respondents whilst in qualitative research data adequacy is based on the amount of data collected (Neuman, 2006). Both philosophies involve public forms of analysis. There is a open description and explanation of the research design and the results of the study that are accessible to anyone to study (Neuman, 2006). Quantitative and qualitative philosophies compare their findings with what is available (as what has been observed on the same situation). There is a thorough analysis of processes, causes, properties and various variables in both styles (Neuman, 2006). Lastly the two philosophies, data analyses is done avoiding errors, false deductions and misleading inferences (Neuman, 2006). There is a quest to come up with true, valid and authentic findings.
The first difference is that quantitative research is abased on standardised research methods that are based on mathematical models whilst qualitative research is less standardized and is flexible (Neuman, 2006). Thus quantitative data analysis is deductive whilst qualitative data analysis is inductive. This was further explained below by Schatzman and Strauss (1973, p108) as cited by Neuman (2006):

“Qualitative analysts do not often enjoy the operational advantages of their quantitative cousins in being able to predict their own analytical processes; consequently, they cannot refine and order their raw data by operations built initially into the design of the research”

In quantitative research data analysis does not start until data has been collected (Neuman, 2006). However, with qualitative research relationships and trends can be established during data collection (Neuman, 2006). The early data analysis guides the subsequent path of data collection. Neuman (2006) emphasizes that qualitative data uses numbers that represent empirical facts to test a hypothesis whilst qualitative research creates new concepts and theory by using empirical evidence and theoretical concepts. Thus qualitative analysis does not use hypothesis to explain the findings of the study. Whilst statistics and hypotheses determine the outcome of quantitative research, qualitative data are relatively imprecise, diffuse and context bases and may have many meanings (Neuman, 2006).

3.3.2 Rationale for Qualitative Philosophy
This research which used ZINWA as a case study followed a qualitative research philosophy. This allowed the researcher to use questionnaires and interviews which enabled the collection of qualitative data that had descriptions and explanations to answer the “how” and “why” questions of the study. The researcher could also get detailed understanding of the use of the RBV theory in the case under study since the
used research instruments allowed for that. Inductive conclusions of the study were made from the qualitative data and are well articulated in Chapter 4.

3.4 Research Strategy
According to Saunders, Lewis and Thornhill (2009), a research strategy is a general plan of how research questions are going to be answered. The strategy will have vivid objectives, derived from the research questions; specify the source of data and the problems that are likely to be experienced during the study. Saunders, Lewis and Thornhill (2009) further emphasise that there are various research strategies that range from survey, experiment, case study, grounded theory, ethnography, action research, cross sectional studies, longitudinal studies, descriptive studies, exploratory studies and explanatory studies. Each of the above mentioned research strategies have their advantages and disadvantages (Yin, 2008) thus at the end of the day a researcher has to choose the strategy that is applicable to the type of the research to be carried out. According to Yin (2008) all the different research strategies can be used for the three main purposes of research that is: exploratory; descriptive or explanatory. Thus there could be an exploratory case study; descriptive case study or explanatory case study. Table 3.1 below gives a description of the various research strategies.
<table>
<thead>
<tr>
<th>RESEARCH STRATEGY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>-based on natural sciences but can be used in psychology. The research is quantitative with samples having different experimental conditions.</td>
</tr>
<tr>
<td>Survey</td>
<td>-used for the deductive research approach. They enable collection of a huge quantity of data from a big population at low costs. Standardised questionnaires are used to collect data in this strategy.</td>
</tr>
<tr>
<td>Case Study</td>
<td>-ideal for gaining a thorough knowledge of how research is carried out. It is a systematic predetermined way of investigating some state of affairs using various sources of evidence available.</td>
</tr>
<tr>
<td>Grounded theory</td>
<td>-best for the inductive research approach. The collected data helps the researcher to come up with a theory. Thus theory comes after data collection.</td>
</tr>
<tr>
<td>Ethnography</td>
<td>-it emanates from the field of anthropology and is ideal for the inductive approach. This tries to interpret the social world why it is that way and takes a very long time.</td>
</tr>
<tr>
<td>Action research</td>
<td>-the researcher is part and parcel of the population within which the research is taking place. Its aim is to describe, understand, explain and change the world</td>
</tr>
</tbody>
</table>

Source: Compiled using information from Saunders, Lewis and Thornhill (2009)
Yin (2008) gives three conditions that distinguish each of the research strategies and they are as follows:

a. The type of research question posed;

b. The extent of control a researcher has actual behavioural events; and

c. The degrees of focus on contemporary as opposed to historical events.

Table 3.1 below summarizes the ideal situations for different research strategies.

<table>
<thead>
<tr>
<th>STRATEGY</th>
<th>FORM OF RESEARCH IN QUESTION</th>
<th>REQUIRES CONTROL OF BEHAVIOURAL EVENTS?</th>
<th>FOCUS ON CONTEMPORARY EVENTS?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>How, why?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Survey</td>
<td>Who, what, where, how many, how much?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Archival analysis</td>
<td>Who, what, where, how many, how much?</td>
<td>No</td>
<td>Yes/No</td>
</tr>
<tr>
<td>History</td>
<td>How, why?</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Case study</td>
<td>How, why?</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Source: COSMOS Corporation, Adapted from Yin (2008)

According to Yin (2008) a case study research method is a practical investigation of a current occurrence within its real-life context; when the boundaries between phenomenon and its background are not clearly evident and in which multiple sources of evidence are used. Zainal (2007) describes a case study as a research strategy that looks at past reports for exploration and greater understanding of sticky issues. It is
therefore necessary where in-depth understanding of issues is required. In most cases a case study researcher chooses a small area or a limited number of people as subjects for study and takes a closer examination of the subjects within a defined context (Zainal 2007). A case study allows a researcher to explore existing theory, challenge it and come up with new hypotheses (Saunders, Lewis & Thornhill, 2009). The authors give the following as the research instruments that can be used to collect data in a case study: questionnaires, interviews, observation and documentary analysis. Yin (2008), described the case study inquiry as it:

- copes with the technically distinctive situation in which there will be many more variables of interest than data points and as one result,
- relies on multiple sources of evidence, with data needing to converge in a triangulating fashion and as another result
- benefits from the prior development of theoretical propositions to guide data collection and analysis.

Thus a case study is a research strategy that comprises an all encompassing method covering the logic of design, data collection techniques and precise approaches to data collection (Yin, 2008). Zainal (2007) highlights the following as advantages of using a case study:

i. Data is collected from where it is being used (Yin, 1984);
ii. It allows both quantitative and qualitative philosophies to be applied in research; and
iii. Allows for explanations to be given for some observed numerical data.

A case study as a strategy includes both single and multiple-case studies (Yin, 2008). It is usually both qualitative and quantitative or purely qualitative in nature. The author further gives five situations where the case study can be applied to explain, describe, illustrate, explore and meta-evaluate different situations. A case study can help to
explain the linkages between real life encounters that are too difficult for surveys or experiments to demystify. It can also help describe how a real life situation is. Smith (1990) and Stake (1986) cited in Yin (2008), explained that a case study may be a meta-evaluation study of an evaluation study, thus can be used to evaluate some studies or strategies that would have been applied.

3.4.1 Design of Case Study Strategy
According to Yin (2008), the design of every case study includes the desire to analyse contextual conditions in relationship to the context of the research problem. There are two types of case studies which are single or multiple and all of them can have unitary or multiple units of analysis (Yin, 2008). Thus a case study can either be a single or multiple case design. There are five rationales given for applying a single case study design. A single case can be used where it represents a significant case in testing a good theory. The theory would have some propositions and situations where the propositions work and the significant case will be used to prove if the propositions are true. A single case study can also be used if the case in question is extreme or unique to other cases and this usually works in clinical psychology in which an injury or disorder may be so rare such that any of the cases can be studied (Yin 2008). The third rationale where a single case study is used is when it is a typical or representative of the population under study. When the investigator has an opportunity to observe and analyse a phenomenon which was not accessible using scientific investigation, a revelatory case is used in a single case design (Yin, 2008). This case allows a break an investigator to make a break through in a certain area of study. A longitudinal case can be used in a single case design where the single case has to be studied at two or more different points in time.
A case study design can also be a holistic or embedded where the unit of analysis is used for classification (Yin, 2008). In a holistic case study design, the chosen single organization as a unit will provide all the required data as one whilst in the embedded design various sub-units, departments or strategic business units will be sources of study and analysis.

3.4.2 ZINWA as a Typical Single Case
This study used ZINWA as typical case because of its suitability to answer research questions of this study which on evaluating of the use of the RBV theory in the public sector of Zimbabwe. This strategy helped the researcher to evaluate the situation in Zimbabwe’s public sector using ZINWA thus addressing the objectives of the study. The research strategy of this study also followed the holistic case study using ZINWA. The study focused on the whole organization without splitting various departments, sections nor strategic business units as research units. A case study strategy answered “how” ZINWA is applying the RBV theory as a management strategy. The study focused on the current management strategies ZINWA is applying in relationship with the RBV theory with no control of the behavioural events.

ZINWA qualifies to be a” typical” case to represent all the organizations in the public sector of Zimbabwe. In reference to Chapter 2, a typical organization in the public sector of Zimbabwe is a parastatal which can be an Authority, Agency or Commission and a Department. These are usually established by an Act of Parliament to provide social services on a cost recovery basis such as water, electricity, transport, communication, housing and food. Public organizations are also mainly owned by government, the line Ministry is in charge of the operations of that organization and their service charges and fees are regulated by this Ministry. Zimbabwe National Water Authority was established by the Zimbabwe National Water Authority Act [Chapter 20:25] of 1998 to provide water
as a good and water resources development and management on a cost recovery basis.

3.5 Data Collection and Analysis
Data collection involves gathering descriptions or explanations from units/subjects. In a census there is need to gather data from every member of the population whilst in most cases it would be ideal to use a sample (proportion of the population) of units from a population that would be used to infer the characteristics of the whole population. Sampling allows a researcher to deal with few objects that will present outcomes that are truly representative of the whole population (Saunders, Lewis and Thornhill, 2009). This is usually done where it is not feasible to collect data from every subject in the population; finances do not allow data collection from the entire population and there are constraints that prevents the researcher to collect data from the entire population. Since case studies are largely qualitative their population sizes are usually small (Zainal, 2007).

3.5.1 Data Sampling
According to Saunders, Lewis and Thornhill (2009), there are two types of data sampling techniques which are: probability or representative and non-probability or judgmental sampling. With probability sampling the chances of each member of the population of being picked is known and is usually equal for all the cases. This type of sampling is usually associated with survey or experiment research strategies. Representative sampling is ideal where there is a need to make inferences of a population using a study. For the judgmental sampling, the probability each population member of being selected is not known and it is difficult to make inferences of the characteristics of a certain population using this method of sampling. Generalisations about populations can thus be made without using statistical ground from studies
carried out using judgmental sampling (Saunders, Lewis & Thornhill, 2009). Therefore, non-probability sampling except for quota sampling techniques are usually used for case study research.

Table 3.3 below summerises the various sampling techniques. Purposive sampling is further broken down into various techniques.

Table 3.3: Sampling techniques

<table>
<thead>
<tr>
<th>PROBABILITY</th>
<th>NON-PROBABILITY</th>
<th>PURPOSEFUL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple Random</td>
<td>Quota</td>
<td>Extreme Case</td>
</tr>
<tr>
<td>Systemic</td>
<td>Purposive</td>
<td>Heterogeneous</td>
</tr>
<tr>
<td>Stratified Random</td>
<td>Snowball</td>
<td>Homogenous</td>
</tr>
<tr>
<td>Cluster</td>
<td>Self Selection</td>
<td>Critical Case</td>
</tr>
<tr>
<td></td>
<td>Convenience</td>
<td>Typical Case</td>
</tr>
</tbody>
</table>

Source: Compiled using information from Saunders, Lewis and Thornhill (2009)

Since this case study used a non-probability data sampling technique, the discussion on sampling techniques hinges on non-probability sampling techniques. The following sections explain quota, purposive, snowball, self selection and convenience non-probability sampling techniques.

3.5.1.1 Quota Sampling
This is a non-random process which is normally used for interview surveys (Saunders, Lewis & Thornhill, 2009). Its use is on the basis that the chosen sample will represent the population as the sample is made up of various quota variables. Bernet (1991) cited in Saunders, Lewis and Thornhill (2009) reports that quota sampling involves selection of cases within strata non-randomly. The first step in selecting a quota is to divide the population into specific groups. A quota of each group is then calculated using
necessary data available. Each interviewer will have some cases to collect data from. The collected data by the interviewers is then combined to cover the full sample. This has an advantage of being less costly than probabilistic techniques and does not require a sampling frame (Saunders, Lewis & Thornhill, 2009). This technique is ideal for large populations where sampling frames may not be necessary.

3.5.1.2 Purposive/Judgmental Sampling
In this method the researcher uses his discretion to select cases that will be able to answer research questions and objectives (Saunders, Lewis & Thornhill, 2009). Neuman (2000) cited in Saunders, Lewis and Thornhill (2009) reports that purposive sampling is ideal in studies where a small or informative sample is required such as in a case study. In this instance, the case is not statistically representative of the population but is chosen because of its “unique” attributes. The attributes which influence selection of such cases are extreme/deviant, heterogeneous/maximum variation, critical case and typical case and these are elaborated above.

3.5.1.3 Snowball Sampling
According to Saunders, Lewis and Thornhill (2009), snowball sampling is ideal were it is hard to come across members of a target population such as people driving vehicles without Driver’s licences. Effective results are attained by first contacting one or two cases who will refer other cases. The respondents would be further asked to refer other cases until the sample size is manageable.

3.5.1.4 Self Selection Sampling
This case involves allowing a case usually an individual to voluntarily agree to take part in the research (Saunders, Lewis & Thornhill, 2009). In order to carry out this technique the researcher would have publicise the need for research cases by advertising through
appropriate media and collect data from the willing respondents. This is usually used in Medicine where respondents would volunteer to be cases for new drugs or procedures.

3.5.1.5 Convenience/haphazard Sampling
Convenience sampling involves haphazardly selecting cases that are easiest to obtain (Saunders, Lewis & Thornhill, 2009) such as a student chosen for an interview at a College. This process is continued until the required sample size is attained. Risk of bias is high on this sampling technique and the sample is not statistically representative of the population.

Data was collected from key informants who were chosen using judgmental sampling. These respondents were put into categories depending on the research instrument used and they were Director-Special Projects, Director-Finance, Commercial Manager, Business Development Manager, Human Resource Development Officer, Catchment Manager (Manyame Catchment), Operations Manager (Head Office), Operations Manager (Mazowe Catchment) and Hydrologist (Mazowe). The respondents were chosen as sources of satisfactory data about the use of the RBV theory in the organization as they were involved in the planning, implementation, monitoring and evaluation of ZINWA business strategy.

3.5.2 Research Instruments
Research instruments are tools that are used to collect data from sources (respondents) and these include interviews, questionnaires (surveys) and focus group discussions (Anonymous, 2013). Kahn and Cannell (1957) in Saunders, Lewis and Thornhill (2009), define an interview as a useful discussion between two or more people. These allow one to gather relevant data which is reinforced by the possibility of interrogating in the discussion.
3.5.2.1 Questionnaire

Questionnaires are mainly used in surveys followed by cases and experiments (Saunders, Lewis & Thornhill, 2009). There are various definitions of questionnaires which vary from a survey where the respondent answers on the question sheet to interviews which are conducted face to face or on the telephone (Saunders, Lewis & Thornhill, 2009). However, deVaus (2002) in Saunders, Lewis and Thornhill (2009), refer to a questionnaire as a general term for all techniques of data collection where every person has to respond to the same set of questions in a planned way. Anonymous (2012a), says that questionnaires are the most ideal instruments of collecting data from individuals.

Questionnaires are not ideal for research strategies where a lot of open ended questions are required such as exploratory research (Saunders, Lewis and Thornhill, 2009). Robson (2002) cited in Saunders, Lewis and Thornhill (2009), reported that questionnaires work well with standardised questions where the researcher is confident that they will be interpreted the same way by the respondents. A questionnaire is therefore an ideal data collection tool for descriptive and explanatory research. The use of questionnaires should be complimented with other tools such as in-depth interviews in order to enhance the validity and reliability of data (Saunders, Lewis & Thornhill 2009).

In designing a questionnaire there is need to make sure that the response rate from informants, reliability and validity of the data collected are not compromised (Saunders, Lewis & Thornhill, 2009). The authors further elaborate that response rates, reliability and validity can be maximized by doing the following:

i. Carefully designing the questions;
ii. Coming up with a clear layout of the form;
iii. Explaining logical the rationale of the questionnaire;
iv. Testing the questionnaire on a smaller sample size before fully administered;
v. Planning and administering the questionnaire carefully. regularity

According to Saunders, Lewis and Thornhill (2009), there are two types of questionnaires which are self-administered or interviewer administered. For a self administered questionnaire the respondent completes the set of questions available whilst with the interviewer administered, the interviewer records the responses from the informant. Self administered questionnaires have three types which are: online; postal and delivery and collection (Saunders, Lewis and Thornhill, 2009). Online questionnaires reach the respondent by email or via internet. Telephone and structured interview are the two types of interviewer administered questionnaires (Saunders, Lewis and Thornhill, 2009). In the telephone questionnaire the interviewer gets responses over a telephone conversation whilst in the structured interview, the informant responds to a set of questions being asked by the interviewer.

3.5.2.2 Interview

There are various types of interviews which vary depending on the purposes of the researches where they are used and the research strategy being used Saunders, Lewis and Thornhill (2009). One of the mostly commonly used typology of interviews is the one that is based on the level of formality and structure of the interview which classifies them into: structured, semi-structured and unstructured interviews. Another classification is on standardized and non-standardised interviews (Healey, 1991; Healey & Rawlinson, 1993 in Saunders, Lewis & Thornhill 2009). Robson (2002) cited in Saunders, Lewis and Thornhill (2009) gives the typology on: respondent and informant interviews based on the work of Powney and Watts (1987).

Structured interviews use questionnaires based on prepared and standardised set of questions (Saunders, Lewis & Thornhill 2009). Questions are read out and the answers are recorded and these may have pre-coded answers. There is room for further interrogation to get understanding of unclear issues. However, there is room for bias if
the questions are not structured well. Semi-structured and unstructured interviews are non-standardised (Saunders, Lewis & Thornhill 2009). In a semi-structured interview, the researcher has a list of themes and questions which may vary from interview to interview. Its weakness is that the possibility of omitting some questions is high. The order of the questions usually follows the flow of the discussion and there may be a need for follow up questions to answer unclear issues. Note taking and or tape recording are the ideal means of capturing the data (Saunders, Lewis & Thornhill 2009).

According to Saunders, Lewis and Thornhill (2009), unstructured interviews are informal and are used to explore in-depth understanding of areas of concern. In this instance the interviewee directs the discussion talking freely about issues since there are no structured questions and this is also known as the informant interview. Where the interviewer directs the discussion through questions, it is known as the respondent interview. Interviews can also be classified according to the interaction between the interviewer and the interviewee (Saunders, Lewis & Thornhill 2009). The interviews may be face-to-face, through the telephone, via post, through email or online. There is also an instance where an interviewee may have various respondents using a tool called focus group discussion (Anonymous, 2013) which is further discussed below.

### 3.5.2.3 Focus Group Discussions
A focus group is a congregation of people who have certain characteristics and provide information of a qualitative nature in a discussion (Anonymous, 2013). The group usually comprises of six to twelve people. The size is determined by two factors which are being small to enable everyone’s participation and being large to provide diversity of minds (Anonymous, 2013). The participants are chosen because of certain traits they posses and the discussion is led by a moderator who would probe for different perceptions and ideas, without being biased to attain consensus. A moderator should be able to make participants relax and discuss freely the issues at hand without fear
Annonymous (2013) gives the advantages and disadvantages of focus groups. The first advantage is that it offers flexibility which allows the moderator to probe for deeper analysis and quiz participants to elaborate on their answers. Outcomes are quickly known in the discussion. The last advantage is that focus group discussions may cost less in terms of planning and conducting than large surveys and personal interviews. These may provide a platform of interviewing a lot of people which may be difficult to do when conducting one to one interviews (Saunders, Lewis & Thornhill, 2009). The following are the disadvantages of focus group discussions:

- A skilled moderator is essential;
- Differences between groups can be difficult to analyse because of qualitative nature of the data;
- Groups are not easy to assemble. There is need to come up with a designated place at a particular time for the session; and
- Participants may not be free to express their views in front of their colleagues.

Saunders, Lewis and Thornhill (2009), cite a disadvantage of focus groups as a result of one participant wanting to dominate the discussion over others.

Although the discussions above involve focus group discussions as a data collection instrument, this case study collected data from its respondents using a self administered semi-structured questionnaire and a semi-structured interview. Focus group discussions were not ideal for this study as the respondents could not be gathered at one point by virtue of their job positions which are diverse. The use of focus groups could also be difficult as gathering the respondents with different job positions may deter those on the

(Saunders, Lewis & Thornhill, 2009). Krueger (1988) and Babbie (1992) cited in Annonymous (2013) reported that focus group discussions have been helpful in assessing needs, developing plans, testing new ideas or improving existing programmes.
lower positions from fully expressing their minds. The use of a questionnaire and an interview enabled the researcher to gather adequate and reliable data from the respondents. Semi-structured types of both questionnaires allowed the researcher to probe the informants in order to gain more detail on the questions under study whilst guided. The first category of respondents was made up of the Director-Finance, Catchment Manager, Operations Manager (Mazowe), Business Development Manager, Human Resource Development Officer and Hydrologist and they responded to self administered semi structured questionnaires. Semi structured interviews were conducted with Director-Special Projects; Commercial Manager and Operations Manager (head office) making up category 2 to triangulate the data that was provided in category 1. Triangulation allowed the researcher to verify facts as a result of responses provided through both interviews and questionnaires.

3.5.3 Data Analysis

According to Yin (2008), data analysis involves examining, categorizing, tabulating, testing or rather recombining both quantitative and qualitative evidence to address propositions of the study. The author further explains that case studies that use qualitative data are usually difficult to analyse as there is no defined way of doing it. However, there are five techniques of analyzing cases studies which are: pattern making; explanation building; time series analysis; logic models and cross-cases synthesis (Yin, 2008). Tesch (1990) cited in Saunders, Lewis and Thornhill (2008) reported that strategies that are used to analyse qualitative data are grouped into four main categories that are: understanding the language used; noting the reliability of data; understanding what the text or action mean and reflection. Some of these strategies are structured and procedural whilst some are not. In the given examples the first two strategies are structured, procedural and the results derived are deductive (Saunders, Lewis & Thornhill, 2008). The data in these structured strategies is coded and analysed as if it is quantitative whilst for others which are inductive there is use of data display tables and detailed write ups.
Neuman (2006) prefers explanations detailing findings of qualitative research. He further elaborates that explanations are rich in detail, sensitive to context and have the capacity to show the complex processes of social life. Explanations thus help to clarify theory and processes. However, some researchers prefer to analyse qualitative data through descriptions (Neuman, 2006). This study presented and analysed the data collected using data display tables (matrices), descriptive write ups and explanations as Miles and Huberman (1994) report. The data was analysed using the five techniques given by Yin (2008) as mentioned above.

3.6 Conclusion
This research followed a case study strategy whilst following a qualitative philosophy extent. After analyzing the research design and the available sampling techniques, judgmental sampling was adopted for this qualitative research. Respondents were chosen from executive and middle and first line management who are involved in strategy direction, formulation, implementation, monitoring and evaluation. Data from these people was collected using semi-structured self administered questionnaires. Semi structured interviews were also administered to triangulate data given in questionnaires. The data collected was presented and analysed using data display tables and descriptive analysis in Chapter 4 below.
CHAPTER 4: RESULTS AND DISCUSSION

4.1 Introduction
This Chapter focuses on results presentation, interpretation, analysis through a discussion. Data was drawn from self administered semi-structured questionnaires administered to six managers. Semi structured personal interviews were also conducted to gather data from three managers. Data is presented through data display tables and description of findings. The discussion of the findings is done comparing the attained results with what is in the relevant literature in Chapter 2. Conclusions and recommendations drawn from the results; research limitations and areas for further study are well articulated in Chapter 5.

4.2. Key Respondents: Category 1
The semi-structured questionnaires were self administered to the Director-Finance, Catchment Manager (Manyame), Operations Manager (Mazowe), Business Development Manager and Hydrologist (Mazowe). The questionnaire in Appendix I was divided into three parts. The first part captured demographic information about the respondents and the second part looked at the general information on the strategic business plan which was being used by ZINWA. The third part focused on addressing the first four objectives of this study.

4.2.1 Demographics
Table 4.1 below shows a summary of demographics of all the respondents to questionnaires.
Table 4.1: Summary of demographics of ZINWA questionnaire respondents

<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th>PROFESSION</th>
<th>GENDER</th>
<th>AGE</th>
<th>PERIOD WITH ZINWA (years)</th>
<th>PERIOD AT CURRENT POST (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director Finance</td>
<td>Accountant</td>
<td>Male</td>
<td>36-45</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Catchment Manager</td>
<td>Civil Engineer</td>
<td>Male</td>
<td>36-45</td>
<td>22</td>
<td>4</td>
</tr>
<tr>
<td>Operations Manager</td>
<td>Civil Engineer</td>
<td>Female</td>
<td>36-45</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>Business Development Manager</td>
<td>Accountant</td>
<td>Male</td>
<td>36-35</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Staff Development Officer</td>
<td>Human Resource Practitioner</td>
<td>Male</td>
<td>36-35</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Hydrologist</td>
<td>Hydrologist</td>
<td>Female</td>
<td>20-35</td>
<td>4.5</td>
<td>4.5</td>
</tr>
</tbody>
</table>
The respondents had a diverse professional background of technical, commercial and social sciences showing that the management team is well balanced for tackling issues pertinent at ZINWA. They were all below the age of 45 implying that the authority had a thrust of engaging young managers who are vibrant, energetic and are in touch with contemporary issues although there was also a need to have old and mature managers to groom and mentor the young ones. Most of the respondents had more than five year working for ZINWA, implying that they have knowledge of the operations of the organization. Generally all the managers were recruited from within as most of them had been employed by ZINWA before they assumed their current posts. However there was an exception of the Hydrologist who was recruited at her current post.

4.2.2 General Issues

Generally all the respondents gave ZINWA’s vision as being “to become a world class stock exchange listed provider of water based lifestyles”. The mission statement “to competitively provide water related products and services to customers on a sustainable basis” was also described by all the informants. However, one of the respondents criticised the mission statement as lacking the markets that are served by ZINWA, the geographical boundary of service provision and the technology that is used to provide the service. The following core values of ZINWA: Innovativeness; quality products, dependable, product adequacy, motivated staff, mutual respect, professionalism, transparency, commitment, efficiency, effectiveness were also stated by the respondents. Table 4.2 below summerises the responses which are related to ZINWA strategic business plan.
Table 4.2: Responses to the strategic business plan for ZINWA

<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th>ZINWA’s STRATEGIES</th>
<th>STRATEGY KEY DRIVERS</th>
<th>CHALLENGES FACED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director Finance</td>
<td>- To consolidate, expand and improve sales of products and services</td>
<td>- Quality service and products</td>
<td>- Restricted finance, budgets not linked to strategy</td>
</tr>
<tr>
<td></td>
<td>- To identify &amp; exploit new water related business opportunities</td>
<td>- Competitive prices</td>
<td>- Very few workers understood the strategy</td>
</tr>
<tr>
<td></td>
<td>- To increase &amp; diversify revenue streams</td>
<td>- Reliability</td>
<td>- Organisational structure not compatible with strategy</td>
</tr>
<tr>
<td></td>
<td>- To adopt a new business culture</td>
<td>- Good image</td>
<td>- No incentives for workers to embrace the strategy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Cost efficiency</td>
<td>- Poor communication</td>
</tr>
<tr>
<td>Catchment Manager</td>
<td>- Commercialization</td>
<td>- Adequate &amp; capable human resource</td>
<td>- Inadequate resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Functional, functional &amp; effective water business</td>
<td>- Unfavourable socioeconomic environment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Efficient &amp; effective internal controls</td>
<td>- Conflicting strategies from departments. No vertical fit between Corporate &amp;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>departmental strategies</td>
</tr>
<tr>
<td>Operations Manager</td>
<td>- Affordable water produced at low cost</td>
<td>- Product quality</td>
<td>- Lack of resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Product availability</td>
<td>- Unclear responsibilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Excellent customer care services</td>
<td>- Lack of top management support</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Affordable prices</td>
<td>- Incentives not linked to performance</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Lack of staff development</td>
</tr>
</tbody>
</table>
Table 4.2: Responses to the strategic business plan for ZINWA (continued)

<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th>ZINWA’s STRATEGIES</th>
<th>STRATEGY KEY DRIVERS</th>
<th>CHALLENGES FACED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Development Manager</td>
<td>-To consolidate, expand and improve sales of products and services</td>
<td>-Adequate and capable staff</td>
<td>-Lack of financial resources resulting in failure to implement strategies</td>
</tr>
<tr>
<td></td>
<td>-To identify &amp; exploit new water related business opportunities</td>
<td>-Functional, effective &amp; profitable water based business</td>
<td>-Liquidity crunch affecting the nation</td>
</tr>
<tr>
<td></td>
<td>-To increase &amp; diversify revenue streams</td>
<td>-An efficient &amp; effective internal control systems</td>
<td>-Lack of staff motivation due to delays in salary payments</td>
</tr>
<tr>
<td></td>
<td>-To adopt a new business culture</td>
<td></td>
<td>-Lack of strategic business partners to provide financing/skills for new projects</td>
</tr>
<tr>
<td>Staff Development Officer</td>
<td>-Suspending overtime</td>
<td>-Suspending contract staff</td>
<td>-Political interference in collection of funds owed</td>
</tr>
<tr>
<td></td>
<td>-Internal recruitment</td>
<td>-Internal recruitment</td>
<td>-Labour law restricts on choices to take in terms of managing labour costs</td>
</tr>
<tr>
<td></td>
<td>-Multi-skilling and tasking</td>
<td></td>
<td>-Poor funding</td>
</tr>
<tr>
<td>Hydrologist</td>
<td>-Provision of safe &amp; clean water to clients</td>
<td>-Customer satisfaction</td>
<td>-Political environment</td>
</tr>
<tr>
<td></td>
<td>-Timeous revenue collection</td>
<td>-Stable cash-flow</td>
<td>-Financial resources</td>
</tr>
<tr>
<td></td>
<td>-Motivation of staff</td>
<td>-Staff turnover</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Stakeholder involvement in water management</td>
<td>-Meeting IWRM principles/goals.</td>
<td></td>
</tr>
</tbody>
</table>
However, on the current Strategic Business Plan for ZINWA, the key focus is on commercialization and the following business strategies were crafted to achieve that:

- To consolidate, expand and improve sales of products and services.
  - Putting up a sustainable tariff structure

- Identifying and exploiting new water related business opportunities
  - Other profitable opportunities - locally and elsewhere

- Increase and diversify revenue streams
  - Improving the financial base
  - Establish new business opportunities - organic or acquisitive growth

- Adopting a new business culture
  - Market products
  - Building a positive corporate image
  - Sharing the mission and vision with all stakeholders

From the responses gathered only half of the informants managed to explain the main strategies being pursued by ZINWA. This shows that the strategy was not well understood by all managers which is a weakness within the strategic management process. The strategies for ZINWA’s commercialization are based on the harnessing benefits from resources that the authority owns that is dams, canals, rivers, water supply stations, water in general, expertise, reputation and institutional arrangements and their core competencies which are their capabilities.

Limited financial resources emerged as the major challenge that hampered the full implementation of ZINWA’s strategic plan. However, poor top management support, incompatible organogram, poor participation of general workers in the business strategy and political influence were also cited as challenges to the success of ZINWA’s
business strategy. The success of any strategy depends on full commitment by top management to execute it. However this has been reported to be absent in ZINWA hence the failure to fully realise the benefits of the strategy at hand. Every business strategy should be complimented by a structure that allows the set objectives to be attained. The respondents reported that the existing organogram conflicted with the existing strategy thus the objectives were not easy to obtain in that set up. The responses also pointed out that there were no incentives to enable full participation of workers in the business strategy. This could be attributed to the fact that there was limited support from top management and that the organogram did not fit the strategy in place.

4.2.3 Objective One: ZINWA Resources

The first objective was: to establish the resources which are owned by ZINWA. To address this objective the following two questions were asked:

i. List the resources owned by ZINWA in order of their importance; and
ii. Explain what makes the above mentioned resources important to the operations of ZINWA

The responses are summeried in Table 4.3 below:
### Table 4.3: Resources owned by ZINWA

<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th>ZINWA’s RESOURCES</th>
<th>WHY RESOURCES ARE IMPORTANT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Director Finance</strong></td>
<td>- Employees</td>
<td>- Employees carry out the operations</td>
</tr>
<tr>
<td></td>
<td>- Highly competent skills</td>
<td>- ZINWA work requires competent staff</td>
</tr>
<tr>
<td></td>
<td>- Infrastructure &amp; equipment (dams, vehicles, water supply stations)</td>
<td>- Infrastructure &amp; equipment enable production &amp; service delivery</td>
</tr>
<tr>
<td></td>
<td>- Operational process</td>
<td>- Processes enable production to be carried out efficiently &amp; effectively</td>
</tr>
<tr>
<td></td>
<td>- Finances</td>
<td>- Finances support all the processes</td>
</tr>
<tr>
<td><strong>Catchment Manager</strong></td>
<td>- Financial</td>
<td>- Finance is the media for operations</td>
</tr>
<tr>
<td></td>
<td>- Human Capital</td>
<td>- Human capital drive operations</td>
</tr>
<tr>
<td></td>
<td>- Water supply infrastructure</td>
<td>- Infrastructure, buildings &amp; vehicles generate revenue</td>
</tr>
<tr>
<td></td>
<td>- Buildings &amp; vehicles</td>
<td></td>
</tr>
<tr>
<td><strong>Operations Manager</strong></td>
<td>- Human resource (HR)</td>
<td>- HR is what makes the operations work</td>
</tr>
<tr>
<td></td>
<td>- Water supply stations</td>
<td>- Water supply stations purify and distribute water to customers</td>
</tr>
<tr>
<td></td>
<td>- Dams</td>
<td>- Dams store water for further use</td>
</tr>
<tr>
<td></td>
<td>- Cash (finance)</td>
<td>- Cash enables all the operations to work</td>
</tr>
<tr>
<td><strong>Business Development Manager</strong></td>
<td>- Water: dams, rivers, ground water</td>
<td>- Water required for drinking &amp; irrigation</td>
</tr>
<tr>
<td></td>
<td>- Infrastructure: canals, water reticulation</td>
<td>- Infrastructure enables supply of commodity to customers</td>
</tr>
<tr>
<td></td>
<td>- Human resource: engineers, hydrologists</td>
<td>- Human resources provide labour, know how and skills</td>
</tr>
<tr>
<td></td>
<td>- Assets: rigs, vehicles, buildings</td>
<td>- Other assets sustain operations</td>
</tr>
<tr>
<td><strong>Staff Development Officer</strong></td>
<td>- Human resource (HR)</td>
<td>- HR-unique skills built over time</td>
</tr>
<tr>
<td></td>
<td>- Water infrastructure (dams, canals)</td>
<td>- Dams store the main product water which is of national and strategic value</td>
</tr>
<tr>
<td></td>
<td>- Information technology (IT)</td>
<td>- IT provides a link between these resources and operations of the authority</td>
</tr>
<tr>
<td><strong>Hydrologist</strong></td>
<td>- Dams and canals</td>
<td>- All services provided through these</td>
</tr>
<tr>
<td></td>
<td>- Water supply stations</td>
<td></td>
</tr>
</tbody>
</table>
Human capital, finances, water supply infrastructure (dams, canals, tanks, pipeline), buildings and equipment emerged as the key resources owned by ZINWA from the responses. Human capital was reported as having multi expertise in civil engineering, structural engineering, mechanical engineering, hydrology, hydro geology. The workers were also reported to be hard working, committed and resilient to harsh economic conditions. The importance of human capital was attached to service delivery as they are the key driver of the organizational processes. Finances generated from the water supply and consultancy services at ZINWA were also reported to be key resources possessed by ZINWA. Finances were reported to be important as they enable all the business processes to take place and their absence may grind the organization to a halt.

Water supply infrastructure which is involved in the storage and reticulation of water was reported as an important resource for executing ZINWA functions. Buildings and equipment such as draglines, drilling rigs and theodolites were also noted as key resources possessed by ZINWA. The importance of buildings was given as they house various equipment for water treatment, reticulation and administration processes. These were also reported as the assets that are used to generate revenue for the authority. One of the respondents highlighted that information communication technology infrastructure (ICT) that links all the seven ZINWA catchments, supports departments and the head office as a key resource to the organization. The importance of ICT was reported to be that of an enabler of all the processes as it could integrate and automate all the business functions thus bringing efficiency and effectiveness.

The above results show that ZINWA conforms to Penrose’s (1959) view of the firm as an administrative organization and a collection of resources (Rizal, 2012). Penrose further explained that the management of an organization integrates internal and external resources and develop them into products and services for profits. In the case
of ZINWA, we find that water is harnessed and stored in dams, reticulated to a water treatment station for purification and thereafter reticulated to customers (households, industries, schools, hospitals) as clear water (final product) which is sold to customers. The process is driven by specialized human capital, using specialized equipment in buildings and all the processes are integrated and automated using ICT. All the equipment and infrastructure is bought using finances and the workers are also paid using finances. From the entire resources mentioned human capital and water supply infrastructure to some extent are not easily imitated by competitors. Otherwise finances, equipment, computers, vehicles and buildings can be imitated by competitors thus it is those resources that are difficult to imitate that will give ZINWA a competitive advantage over others.

4.2.2 Objective Two: ZINWA Resources and VRIN Model
The second objective was: to determine if resources possessed by ZINWA are valuable, rare, cannot be imitated by other firms and non substitutable. Four questions listed below were asked to address this objective:

i. What value do you attach to the resources that are possessed by ZINWA?
ii. How accessible are the resources possessed by ZINWA?
iii. To what extent can ZINWA resources be imitated by other firms? and
iv. What are the substitutes of the mentioned resources and in what way are they substitutes?

The responses to the above questions are summerised in Table 4.4 below:
Table 4.4: Resources of ZINWA being valuable, rare, in-imitable and non-substitutable

<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th>RESOURCES VALUE</th>
<th>RESOURCES RARENESS</th>
<th>RESOURCES IMIMITABILITY</th>
<th>RESOURCES NON-SUBSTITUTABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director Finance</td>
<td>-Employees, high value thus requires continuous improvement</td>
<td>-They are readily accessible</td>
<td>-Resources cannot be easily imitated by others</td>
<td>-No significant substitutes</td>
</tr>
<tr>
<td></td>
<td>-Equipment, high value though some needs replacement</td>
<td></td>
<td>-Processes cannot be imitated</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Processes require new technology to maintain and increase value</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catchment Manager</td>
<td>-Very valuable, over a billion dollars</td>
<td>-Accessible</td>
<td>-Legal barriers giving ZINWA monopoly over water issues makes it difficult for ZINWA resources to be imitated</td>
<td>-Private players trying borehole drilling &amp; bulk water supply but Harare where ZINWA does not operate</td>
</tr>
<tr>
<td>Operations Manager</td>
<td>-HR not easy to valuate</td>
<td>-All are accessible</td>
<td>-HR cannot be imitated</td>
<td>-HR: minimum substitution</td>
</tr>
<tr>
<td></td>
<td>-Water supply stations require millions of dollars to build</td>
<td></td>
<td>-Water supply stations-there are government barriers to purify and distribute water to customers</td>
<td>-Water purification can be automated</td>
</tr>
<tr>
<td></td>
<td>-Dams require trillions of dollars to build</td>
<td></td>
<td>-Dams construction is government mandate only</td>
<td>-Bulk water suppliers only found in Harare</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Dams no clear substitutes. Boreholes can substitute dams to some extent but the drilling is monitored by ZINWA.</td>
</tr>
</tbody>
</table>
Table 4.4: Resources of ZINWA being valuable, rare, in-imitable and non-substitutable (continued)

<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th>RESOURCES VALUE</th>
<th>RESOURCES RARENESS</th>
<th>RESOURCESCES INIMITABILITY</th>
<th>RESOURCES NON-SUBSTITUTABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Development Manager</td>
<td>-Statutory mandate to manage water resources</td>
<td>-Water infrastructure are protected by law. Only ZINWA is mandated to manage</td>
<td>-Authority enjoys protection of the law for dam infrastructure</td>
<td>-Water resources no substitutes</td>
</tr>
<tr>
<td></td>
<td>-Infrastructure like canals, cannot be erected by ordinary people</td>
<td>-Specialised are expensive to acquire</td>
<td>-Investment on HR requires a lot of money e.g. to have water quality experts</td>
<td>-HR, machinery can be used but to a limited extent</td>
</tr>
<tr>
<td></td>
<td>-ZINWA has engineering skills for water resources such as dams</td>
<td>-Engineering skills are natured over long periods of human capital investment</td>
<td>-It may be sub-economic for some people to own specialized assets such as de-silting equipment</td>
<td>-Infrastructure-no substitute, water has to be conveyed somehow</td>
</tr>
<tr>
<td></td>
<td>-Other assets such as de-silting equipment are specialized assets</td>
<td></td>
<td></td>
<td>-Other assets-other options may be exploited rail, air where possible</td>
</tr>
<tr>
<td>Staff Development Officer</td>
<td>-Difficult to attach value to HR, but is of importance to ZINWA</td>
<td>-It is difficult to get people with the right technical qualifications and experience: engineers, hydrologists, dams take time and huge investments to build</td>
<td>-To a very limited extent. We are the only one in this kind of business</td>
<td>-Can outsource or hire engineering consultants</td>
</tr>
<tr>
<td></td>
<td>-Engineers and hydrologists have gained unique experience in water resources management which cannot be substituted</td>
<td></td>
<td>-Commercial skills like finance, hr, IT can easily be imitated though</td>
<td>-The rest are difficult to imitate</td>
</tr>
<tr>
<td>Hydrologist</td>
<td>-Over a billion dollars</td>
<td>-Accessible by everyone</td>
<td>-It take a long time to imitate infrastructure</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-No</td>
</tr>
</tbody>
</table>
It emerged from the responses that ZINWA resources were of a high value. In terms of infrastructure some were estimating it to be in billions of dollars. As for the human capital most of the informants failed to attach a value to the overwhelmingly valuable resource that was possessed by the organization. As long as the human capital is put to its rightful use it will bring results that are of high value such as organizational structures, infrastructure, equipment and finances. Thus the fact that these resources were of high value, it was not easy for competitors to own them thus giving ZINWA an advantage over them. The results also showed that it was difficult to access or come across human capital with specialized skills like those in ZINWA and also the specialized equipment and infrastructure. It is thus clear that human capital and water infrastructure were ZINWA’s resources which were rare. Some attributed the exclusivity of water infrastructure to the fact that the Water Act and ZINWA Act give ZINWA the ultimate mandate to manage water resources together with various stakeholders in Catchment Councils. The informants concurred in their responses that human capital and water infrastructure could not be easily imitated by any competitors.

The fact that ZINWA had a monopoly over water resources management, the special skills and qualities that had been developed by their workers could not be easily imitated. Same goes with the infrastructure which they owned which was unique for water storage, treatment and reticulation. This infrastructure was also very expensive to construct thus only organizations like ZINWA with government funding and support could invest in such infrastructure. Results also indicated that there were no substitutes for the specialized human capital and water infrastructure that were possessed by ZINWA. Although engineering consultants could be hired, they would not be familiar with the processes and infrastructure that was unique to ZINWA. Boreholes were also reported to substitute dams. However, these would not yield water that would be equivalent to that harnessed and stored in a dam. Moreover borehole registration and use was monitored by ZINWA together with Catchment Councils. In Harare where bulk
water suppliers were emerging, ZINWA did not operate there, thus they could not be regarded as a substitute to ZINWA’s water as a resource.

According to Barney (1991), for an organization to have a sustained competitive advantage as a result of their unique characteristics under the RBV theory, they must follow a VRIN (valuable, rare, in-imitable and non-substitutable) model which is well explained in Section 2.2 above.

It is clear from the results above that human capital and water infrastructure were ZINWA’s resources that follow the VRIN model thus would provide sustained competitive advantage. These resources were only specific to ZINWA and there was no other organization that had these resources. Integration and bundling of these resources would give ZINWA a sustained competitive advantage. The results of the study also showed that human resource qualities are path dependent and are developed over a long time and cannot be simply bought on the market by rivals thus concuring with Becker and Gerhart (1999) cited in Stiles and Kulvisaechana (2012). In order to fully realize the value of these resources thus to attain a sustained competitive advantage, ZINWA management has play around with four attributes of a resource as reported by Kraaijenbrink (2012). These attributes are resource suitability, resource combinability, resource fecundity and resource durability and they are well discussed in Section 2.3 above.

4.2.3 Objective Three: ZINWA Core Competencies

Objective three was: to establish the core competencies of ZINWA. There were two questions asked in order to help ask the third objective and are listed below:

i. Explain the core competencies of ZINWA; and

ii. Explain how you acquired your core competencies.

The responses to the above questions are summerised in Table 4.5 below:
<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th>ZINWA’s CORE COMPETENCIES</th>
<th>HOW COMPETENCIES WERE ACQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director Finance</td>
<td>-Highly skilled personnel&lt;br&gt;-Specialised equipment&lt;br&gt;-High quality service and products</td>
<td>-Formal Education&lt;br&gt;-Continuous training &amp; development</td>
</tr>
<tr>
<td>Catchment Manager</td>
<td>-Supply of portable water&lt;br&gt;-Supply of bulk raw water for irrigation&lt;br&gt;-Drilling &amp; equipping of boreholes&lt;br&gt;-Civil engineering consultancy</td>
<td>-Through hard work culture from the Department of Water Development &amp; Regional Water Authority for over 70 years.&lt;br&gt;-Continuous capacity building</td>
</tr>
<tr>
<td>Operations Manager</td>
<td>-Use of available resources in an efficient manner&lt;br&gt;-Highly skilled manpower&lt;br&gt;-Effectiveness, meeting its mandate of supplying water to its customers with no disease outbreaks.</td>
<td>-Employing right people for the job&lt;br&gt;-Good remuneration compared to other parastatals&lt;br&gt;-Good business ethics and morals&lt;br&gt;-Staff training and development</td>
</tr>
<tr>
<td>Business Development Manager</td>
<td>-Design of major water storing facilities such as dams&lt;br&gt;-Provision of portable water and water for water for irrigation&lt;br&gt;-Ground water management</td>
<td>-through conventional education&lt;br&gt;-Continuous development of personnel through short courses, seminars, workshops</td>
</tr>
<tr>
<td>Staff Development Officer</td>
<td>-Technical awareness, knowhow of processes&lt;br&gt;-Dedicated workforce&lt;br&gt;-Established distribution networks</td>
<td>-Overseas studies&lt;br&gt;-Employees have been in the organization for a long time</td>
</tr>
<tr>
<td>Hydrologist</td>
<td>-Highly technical staff&lt;br&gt;-Experienced personnel&lt;br&gt;Good institutional arrangement</td>
<td>-Good remuneration&lt;br&gt;-Strong government back up</td>
</tr>
</tbody>
</table>
The above results show that ZINWA’s core competencies were in design and construction of water supply infrastructure (civil engineering), treatment and provision of water, water resources management and ability of workers to deliver under harsh conditions. These capabilities were reported to have come from conventional education, in house on the job training and continuous training and development. All these capabilities also came about as a result of more than 70 years of water resources management and development being driven by the parent ministry. The induction and orientation process exposed the workers to various fields within the operations of ZINWA to add on to the academic and professional qualifications that would be possessed on joining ZINWA. The pressure from central government to provide water as both a social and an economic good compelled workers to deliver good work results.

According to Liu, Baskaran and Li, (2009), possession of resources alone does not guarantee sustainable strategic competitive advantage to firms but rather it is the organisation’s competence that yields benefits from strategic resources. They further define capabilities which core competences of an organization as the activities it do best, usually better than others. These come about through bundling and integrating resources in a process that achieves a preferred state (Grant, 1991 cited by Soto-Acosta & Meron-Cerdan, 2008). The above mentioned competencies of ZINWA were a result of use of a combination of specialized equipment, infrastructure, instruments, training and development, experience and reputation to meet set business objectives. This conquered with the description of capabilities given by Grant (1991) cited by Soto-Acosta and Meron-Cerdan (2008) as the complex patterns of co-ordination between people and other resources. According to Lengnick-Hall and Wolff (1999) cited in Liu, Baskaran and Li (2009), capabilities allow an organization to acquire and use external business chances.
4.2.4 Objective Four: Use of ZINWA Resources and Core Competencies

The fourth objective was: to find out if ZINWA has been using its resources and core competencies to increase its viability. Three questions were asked to address the fourth objective and are listed below:

i. Explain how ZINWA has been using the above mentioned resources to increase its profitability and hence viability?

ii. What huddles have you experienced in using your resources and core competences to increase ZINWA’s profitability? and

iii. How have you tackled challenges experienced at ZINWA?

Table 4.6 below summerises responses to the above questions:
**Table 4.6: Use of ZINWA’s resources and core competencies**

<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th>HOW ZINWA’S RESOURCES HAVE BEEN USED</th>
<th>HUDDLES EXPERIENCED IN USE OF RESOURCES</th>
<th>HOW CHALLENGES WERE TACKLED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director Finance</td>
<td>-Not able to effectively utilise resources due harsh economic conditions&lt;br&gt;-Debtors not fully honouring their debts to boost finances &amp; maintain ZINWA’s viability</td>
<td>-Mismanagement of resources&lt;br&gt;-Poor communication leading to poor resource utilization decisions</td>
<td>-Team building workshops&lt;br&gt;-Professional development&lt;br&gt;-Introduced Performance management&lt;br&gt;-Restructured top management</td>
</tr>
<tr>
<td>Catchment Manager</td>
<td>-Reducing operating costs&lt;br&gt;-Streamlining staff establishment</td>
<td>-Unfavourable economic conditions&lt;br&gt;-Political interference&lt;br&gt;-Policies which do not tally with ZINWA business</td>
<td>-Creation of survival strategies&lt;br&gt;-Motivation of staff&lt;br&gt;-Creating a sense of being commercial</td>
</tr>
<tr>
<td>Operations Manager</td>
<td>-Employee motivation increased profitability&lt;br&gt;-Adequate available water enabled high production led to increased sales and profitability</td>
<td>-Government intervention. Government directive not to disconnect defaulters&lt;br&gt;-Government setting sub-economic tariffs&lt;br&gt;-Good business ethics and morals&lt;br&gt;-Use of raw water by politicians who are adamant to pay</td>
<td>-Carrying out water restrictions not disconnections to defaulters&lt;br&gt;-Diversify into other water related projects which do not have government control e.g. bottled water&lt;br&gt;-Coming up with special tariffs to water users who are not heavily protected by government e.g. Miners</td>
</tr>
<tr>
<td>RESPONDENT</td>
<td>HOW ZINWA’S RESOURCES HAVE BEEN USED</td>
<td>HUDDLES EXPERIENCED IN USE OF RESOURCES</td>
<td>HOW CHALLENGES WERE TACKLED</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>-------------------------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>Business Development Manager</td>
<td>-New water projects designed to increase profitability</td>
<td>-General unfavourable macro and micro economy</td>
<td>-Control of costs to curtail expenditure</td>
</tr>
<tr>
<td></td>
<td>-Commercial projects such as bottled water-Kumakomo</td>
<td>-Effects of liquidity crunch</td>
<td>-New business initiatives to widen revenue base</td>
</tr>
<tr>
<td></td>
<td>-Borehole drilling-Live-water</td>
<td>-Lack of financial resources as cash-flows are failing to sustain operations</td>
<td>-New technology, such as BIQ to integrate and automate operations</td>
</tr>
<tr>
<td>Staff Development Officer</td>
<td>-Technical awareness, knowhow of processes</td>
<td>-Rewarding employees to their satisfaction</td>
<td>-Continuous employee engagement through Works Council</td>
</tr>
<tr>
<td></td>
<td>-Dedicated workforce</td>
<td>-Lack of funds for employee development</td>
<td>-Staff development through education assistance</td>
</tr>
<tr>
<td></td>
<td>-Established distribution networks e.g. hippo valley</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydrologist</td>
<td>-Increasing capacity</td>
<td>-Political influence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-Marketing</td>
<td>-Climate change</td>
<td></td>
</tr>
</tbody>
</table>
From the results it emerged that ZINWA had not been fully utilizing its resources to increase profitability due to financial challenges. It was reported that the inadequacy of finances could not facilitate the use of resources to generate more revenue. Others responded that rationalization of human capital resulted in lowering of operating costs. One respondent noted that ground water was used to provide raw material for a water bottling project in Save (Mutare) Catchment. The water was harnessed from the ground and exposed to reverse osmosis and Ultra-Violet radiation before it was bottled and distributed for sale. The bottled water was being sold to other ZINWA subsidiaries and in the eastern and southern parts of the country and provided extra revenue to Save Catchment as an SBU.

The huddles experienced in the use of ZINWA resources were mismanagement of resources, lack of communication, inadequate finances, bad macro-economic conditions and political influence. Mismanagement of resources was attributed to poor (wrong purposes and quantities) use of the resources. This brought inefficiencies and ultimately losses as revenue was forgone by that. Finance is the key lubricant of business processes and is required for full utilization of firm resources. Moreover, finances on their own are resources that could be used together with other resources to attain sustained competitive advantage. Lack of communication on the importance and use of resources could have led to their mismanagement. The limited inflows of cash into ZINWA could be attributed to bad macro-economic conditions characterised by high unemployment, high interest rates, expensive credit facilities, high production costs and low capacity utilization. These conditions do not promote economic growth and thus general liquidity of the economy. As such ZINWA’s clients who were supposed to pay for the water they consume from their earnings were not able to do so since their incomes are depressed. Most of them were not formally employed and relied on vending, farming, micro income projects and hand outs from well wishers. Political influence came in different dimensions which were formal and informal. Where it was
formal government gave controls the operations of ZINWA by setting clear and raw water tariffs that were sub-economic. ZINWA was then forced to provide an uninterrupted service at a loss without subsidies from government. On the other hand some consumers used political influence to default settling their clear and raw water bills.

The informants reported that they employed various strategies to tackle the challenges they experienced. Team building, professional development, performance management, staff motivation, water restrictions, special tariffs, control of costs, use of new technology and diversification into other businesses were some of the strategies that were employed to counter the challenges experienced. Team building, professional development and staff motivation were mainly targeted at human capital which had to be aligned to make good use of resources that were owned by ZINWA. This would improve on the understanding of the value and importance of resources and also help improve communication mechanisms. Controlling of costs would help in making the efficient use of finance as a resource. Use of new ICT technology would help in integrating and automating business functions thus bringing about efficiency in the execution of business. Diversification into water related businesses such as water bottling would ensure extra revenue inflows into ZINWA.

Following the modified RBV theory by Barney in 2001, a firm would have to follow a VRIO model in order to attain sustainable competitive advantage. This model thus brings in the concept of core competencies and capabilities. It shows how the firm should be able to bundle and integrate its resources together with external resources in order to come up with sustainable competitive advantage.
From the results ZINWA could not fully exploit its resources and opportunities on the market to improve its profitability. Moreover the organogram as discussed in the Sections above could not provide for the right implementation of the business strategy. According to Lippman and Rumelt (2003) cited in Sirmon, Hitt and Ireland (2007), the value of the resources possessed by a firm is only realized when resources are evaluated, manipulated and assigned appropriately in the organization. Thus failure by ZINWA to fully assign their resources and thus competences would not make them realize the full value of their resources. It is important to know resource functionality for one to appreciate of the value of a resource (Kraaijenbrink, 2012). The author further describes in Section 2.3 above. Resource management is “the comprehensive process of structuring the firm’s resource portfolio, bundling the resource to create capabilities and leveraging these capabilities with the purposes of creating value for customers and owners” (Sirmon, Hitt & Ireland, 2007, p273). The responses also show that ZINWA management failed to properly manage their resources.

4.3 Key Respondents: Category 2
Semi structured interviews were conducted by the researcher with the Director-Special Projects, Commercial Manager and Operations Manager-Head Office under the second category of respondents. These were meant to triangulate the data that was gathered using questionnaires through an in-depth discussion. The data is presented through descriptive analysis which is followed by a discussion of the results in relationship to the relevant literature. The areas under discussion are listed below and in Appendix II which guided the interview:

i. ZINWA’s vision, mission statement, core values and business strategies. The fitness of the structure to the strategy and challenges encountered were also discussed;

ii. The resources owned by ZINWA and why they give them a competitive advantage;
iii. Core competencies of ZINWA and how they were acquired; and
iv. Use of the resources and core competencies in-order to gain competitive advantage.

General Demographic information of these three informants is summerised in table 4.7 below.
Table 4.7: Demographics of interviewees

<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th>PROFESSION</th>
<th>GENDER</th>
<th>AGE</th>
<th>PERIOD WITH ZINWA (years)</th>
<th>PERIOD AT CURRENT POST (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director Special Projects</td>
<td>-Civil Engineer -Business Administrator</td>
<td>Male</td>
<td>46-45</td>
<td>24</td>
<td>1</td>
</tr>
<tr>
<td>Commercial Manager</td>
<td>-Accountant</td>
<td>Male</td>
<td>36-45</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Operations Manager</td>
<td>-Civil Engineer</td>
<td>Male</td>
<td>36-35</td>
<td>20</td>
<td>7</td>
</tr>
</tbody>
</table>
4.3.1 ZINWA’s Business Strategy

Generally they all articulated well the vision, mission statement and core values of ZINWA as laid down in the strategic plan. ZINWA’s current vision, mission statement, core values, strategies and their drivers are well articulated in Section 4.2.2 above. The respondents also gave the strategies and their key drivers as illustrated in the strategic plan. The challenges that hampered the full implementation of the strategic plan were given as inconsistence in governance policy, incompatible organizational structure, financial, decentralization of the procurement system, use of obsolete technology, low usage of raw water. The challenges faced in implementation of the set business strategy are summerised in Table 4.8 below:

Table 4.8: Challenges faced in ZINWA

<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th>CHALLENGES</th>
<th>REASONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director-Special Projects</td>
<td>-Inconsistency in governance policies</td>
<td>- No strong policy driver</td>
</tr>
<tr>
<td></td>
<td>-Incompatible organogram</td>
<td>- Absence of a governance policy framework</td>
</tr>
<tr>
<td></td>
<td>-Finances</td>
<td>- Consumers not paying. Sub-economic tariffs.</td>
</tr>
<tr>
<td>Operations Manager</td>
<td>-Use of old technology</td>
<td>-lack of funds and instruments for investment</td>
</tr>
<tr>
<td></td>
<td>-Finances</td>
<td>-Consumers not paying. Sub-economic tariffs</td>
</tr>
<tr>
<td>Commercial Manager</td>
<td>-Finances</td>
<td>-Consumers not paying. Sub-economic tariffs.</td>
</tr>
<tr>
<td></td>
<td>-Decentralisation of procurement</td>
<td>-Empowerment of SBUs</td>
</tr>
<tr>
<td></td>
<td>-Incompatible organogram</td>
<td>-Lack of strategy support from top management</td>
</tr>
</tbody>
</table>
Inconsistence in governance policies was sited as the most important causer for failure of full implementation of the strategic business plan at ZINWA. The parent Ministry did not have a standing Water Policy and is in the process of crafting it. The strategic business plan for ZINWA had to be guided by the National Water Policy and as such the board had often been changing its corporate direction without allowing the standing business strategy and structure to live their lives. This also happened in the water pricing system where the tariffs were slashed by the parent Ministry without prior consultation with the service provider ZINWA. This made ZINWA fail to fully realize the benefits of its strategies. A ban of disconnecting defaulting customers by the central government also left ZINWA with no means of enforcing their customers to pay for the water they would have consumed.

The existing organogram was reported to be not enabling full implementation of the set business strategies. There was no specific driver of the commercialization thrust which was adopted to bring the authority to profitability. Of all the strategies that had been adopted, none of them have really taken shape. Moreover the Commercial department which was supposed to be the main driver co-ordinating all the commercial activities as laid down in the strategic business plan was left with only developing new businesses. The department head even reported to a Director of Ground Water and Drilling Services yet it was supposed to be a stand alone unit working with all the departments and SBUs and reporting to the CEO. The various SBUs did not get a chance to carry out all the commercial projects that had proposed to carry out. Each SBU was supposed to recruit a person to drive sales activities but that did not happen three years down the line. As such ZINWA could not accomplish its commercial business strategies.

Financial challenges were reported to be emanating from non payment of service delivered by customers. The major debtor reported was government (through various departments such as Zimbabwe National Army, Zimbabwe Republic Police, Zimbabwe prison Services, Ministry of Health and Child Welfare and Ministry of Agriculture, Irrigation Development and Mechanisation); irrigators, general households and
commercial companies. The restricted inflow of revenue to government from taxes, customs duty and levies due to the depressed economy has contributed to the financial challenges in government. Ironically, ZINWA could not stop supplying water to these key departments but they were forced to channel all the few resources they had towards that. However, payments were done at most twice a year in bulk but not in full to cover all the arrears accrued by government. Individual households and some companies were equally affected by the liquidity challenges making them being unable to settle their water bills. With a directive from central government not to disconnect defaulters, ZINWA continued to supply treated water to non paying consumers. This made ZINWA accrue huge debts to its suppliers of key materials such water treatment chemicals, pumps, motors, pipes, valves and fittings and legging behind in paying salaries by two months. Irrigators who were mostly resettled farmers did not settle their irrigation water bills in full although they were successfully using the water to grow their crops. Some of the irrigators used political influence to avoid paying for their water.

An unviable tariff structure was also reported to have contributed towards limited revenue inflows into the Authority. The fact that ZINWA was spatially distributed with different types of water supply systems and dams meant it was very difficult to come up with a viable tariff structure. There was a national blend pricing structure, but with a weakness of failing to finance the operations of the organization as the operating conditions were not uniform. Although, there was no clear cut policy of system specific prices of water, this was perceived to be a good way of making the business viable.

Decentralisation of procurement from head office to Catchments which are SBUs was reported as causing challenges to the smooth operations of ZINWA. The organization could have enjoyed benefits of economies of scale through centralised purchasing of universal stock items such as water treatment chemicals, pipes, motors, bearings, meters, belts, fuels and oils in bulk. Centralised purchasing would also allow the procurement of goods and services from renowned suppliers with quality goods at credit terms. However, SBUs were buying these items in smaller quantities and at unauthentic
suppliers who would supply sub-standard goods and usually on a cash basis. This made the authority lose money that could be channeled towards some other more deserving areas. Moreover whilst these suppliers were operating on a cash basis most of ZINWA’s customers were paying their bills at a cycle of more than 60 days thus leaving ZINWA with very limited working capital all the time.

4.3.2 ZINWA’s Resources
The respondents gave the resources that are owned by ZINWA and their importance to the operations of ZINWA. Table 4.9 below summerises their responses.

*Table 4.9 Resources Owned by ZINWA according to interviewees*

<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th>RESOURCE</th>
<th>IMPORTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director-Special Projects</td>
<td>- Human capital</td>
<td>- Drives the operations by integrating other resources</td>
</tr>
<tr>
<td></td>
<td>- Water infrastructure</td>
<td>- Store, treat &amp; reticulate water to customers</td>
</tr>
<tr>
<td></td>
<td>- Finances</td>
<td>- Enables execution of all the operations.</td>
</tr>
<tr>
<td>Operations Manager</td>
<td>- Water infrastructure</td>
<td>- Store, treat &amp; reticulate water for various uses</td>
</tr>
<tr>
<td></td>
<td>- Human capital</td>
<td>- Operate machinery &amp; carry out operations</td>
</tr>
<tr>
<td>Commercial Manager</td>
<td>- Human capital</td>
<td>- Carry out operations activities</td>
</tr>
<tr>
<td></td>
<td>- Water infrastructure</td>
<td>- Store, treat and reticulate water to customers</td>
</tr>
<tr>
<td></td>
<td>- Machinery and equipment</td>
<td>- Assist human capital in carrying out operations</td>
</tr>
</tbody>
</table>

ZINWA was reported to be the only authority in the country that owned more than 200 dams that stored water used for irrigation, domestic purposes, power generation,
manufacturing, mining and recreation. Where local authorities such as Harare, Bulawayo, Mutare and Gweru operate ZINWA did not have water supply stations but instead it had dams where the local authorities bought water for treatment. All the water in the country was reported to be under the control of ZINWA somehow as every water user had to apply for a permit through ZINWA and had to pay water levies. ZINWA had the authority to influence the granting and termination of these permits.

Although water related equipment such as drilling rigs, drag lines, survey equipment and boats were unique to ZINWA. They could be easily accessible by anyone from the supplies. However, they were of high value of both purchasing and service delivery, cannot be easily imitated and could not be substituted by any other equipment as it was specific to their use. ZINWA had a reputation of being a water resources organization thus any water activities associated with ZINWA were rendered authentic by the public. The human resource at ZINWA is very valuable for delivery of service. The skills of water infrastructure design and construction, hydrology, water resources management, borehole sitting and drilling and water treatment and reticulation were only found in ZINWA. If anyone was to join the authority they would need at least a year to be trained on the technical work done at ZINWA. The qualities possessed by ZINWA staff could not be easily imitated as they were acquired over years with special training and could not be substituted by any other qualities.

Finances were reported to be a key resource for ZINWA as it supports all the operations in the authority. Although the amount of revenue collected as a percentage of sales has declined in the past four years to about 30%, ZINWA collected more than $2 million dollars every month from all its SBUs. If a certain portion of that say 5% was to be reserved for investment concession schemes such as Build-Operate and Transfer (BOT) for investment in new infrastructure, it would ensure that the Authority keeps pace with modern technology and infrastructure which is more efficient and profitable to use. As such it would be able to meet the demand for water especially portable that is
ever growing. Thus, whatever amount of money that would come in as revenue received would make a difference in changing the profitability of ZINWA.

From the responses given above it is evident that water a resource that is stored in dams and underground is the key resource owned by ZINWA which adheres to the VRIN model as given by Barney (1991). The resource is complemented with its infrastructure (dams, canals, piping, water supply stations) and fall under the physical category of resources according to Barney (1997). Other resources that are also valuable, rare, in-imitable and non-substitutable to ZINWA are reputation (organizational resource), human resource (human capital resource). These resources are unique to ZINWA thus are cannot be transferred to any organization and are heterogeneous to ZINWA thus follow the RBV theory principles (Barney, 1991; Wenerfelt, 1984). According to Wenerfelt (1995), these resources which follow the VRIN model will enable them to use them to have a competitive advantage over others.

4.3.3 ZINWA’s Core Competencies
The study revealed five main core competencies of ZINWA and how they were acquired. These responses are summerised in Table 4.10 below:
Table 4.10: Core competencies of ZINWA according to interviewees

<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th>CORE COMPETENCIES</th>
<th>HOW COMPETENCIES WERE ACQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director-Special Projects</td>
<td>-Design &amp; construction of water supply infrastructure</td>
<td>- Formal education, on the job training, short courses</td>
</tr>
<tr>
<td></td>
<td>- Hydrology and water resources management</td>
<td>- Formal education, on the job training, short courses</td>
</tr>
<tr>
<td></td>
<td>- Ground water resources management</td>
<td>- Formal education, on the job training, short courses</td>
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<td></td>
<td>- Mechanical &amp; electrical engineering</td>
<td>- Formal education, on the job training, short courses</td>
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<tr>
<td></td>
<td>- Ability to perform multi-tasks under harsh conditions</td>
<td>- Formal education, on the job training, short courses, pressure to deliver</td>
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<td></td>
<td></td>
<td>- Induction, orientation, pressure to deliver</td>
</tr>
<tr>
<td>Operations Manager</td>
<td>-Design &amp; construction of water supply infrastructure</td>
<td>- Formal education, on the job training, short courses</td>
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<td></td>
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<td>- Formal education, on the job training, short courses</td>
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<tr>
<td></td>
<td>- Mechanical &amp; electrical engineering</td>
<td>- Formal education, on the job training, short courses</td>
</tr>
<tr>
<td></td>
<td>- Ability to perform multi-tasks under harsh conditions</td>
<td>- Induction, orientation, pressure to deliver, long-term exposure to work</td>
</tr>
<tr>
<td>Commercial Manager</td>
<td>-Design &amp; construction of water supply infrastructure</td>
<td>- Formal education, on the job training, short courses</td>
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<td></td>
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<td>- Ground water resources management</td>
<td>- Formal education, on the job training, short courses</td>
</tr>
<tr>
<td></td>
<td>- Ability to perform multi-tasks under harsh conditions</td>
<td>- Pressure to deliver, long-term exposure to work</td>
</tr>
</tbody>
</table>
ZINWA was reported to be known for design and construction of water infrastructure and had staff workers committed to executing that. The staff used various equipment such as theodolites, stuffs, tapes and pegs to survey and identify suitable sites for dams, canals, tanks, pipe lines, water supply systems and irrigation schemes. They also used their skills to design and produce drawings for these various civil works. ZINWA staff also worked with private contractors using equipment such as tippers, frond end loaders, compacters, bowsers and blasters to construct this infrastructure. Skills used, were possessed by Civil and Mechanical Engineers, Hydrologists, Surveyors, Technicians, Estimators, Draughtsmen and Journeymen (building, mechanical, plumbing and carpentry) employed by ZINWA.

ZINWA staff was reported to be also good in hydrology and general water resources management. Under hydrology they accounted for surface water that is getting in and out of the system using the hydrologic cycle. This was achieved through studying precipitation; river flows; uses for irrigation, domestic, hydro-power generation, manufacturing and mining; storage, percolation; evaporation and evapor-transpiration. The Hydrology section of ZINWA thus kept records of dam capacities; river flows at designated places and evaporation rates all the time. The section also carried out river flow modeling and thus flood and hydrological drought monitoring. In water resources management they worked with various water stakeholders such as farmers, miners, residents, political and local leadership in doing integrated water resources management. They advised them on catchment management practices which rannged from land use to water resources. It was also reported that ZINWA was the only organization that has staff with these competencies.

The respondents highlighted that ZINWA has a sound Ground Water Management section. This was said to be involved in the management of data pertaining to the available ground water in the country. It had a data base of all hydro-geological formations in the country and its characteristics. The data kept depicted the areas with the most ground water and how it could be harnessed sustainably. This section was
reported to be involved in drilling and equipping of boreholes which are used to harness
ground water. This section even assisted the Standards Association of Zimbabwe to
come up with borehole drilling standards which have to be adhered to by all borehole
drillers. The staff in this section could maintain and repair groundwater rigs,
compressors, trucks and all the drilling equipment. Some private players tried to provide
drilling services but could not match the standards at ZINWA. The only other play that
came close to ZINWA standards was the District Development Fund, but the
organization stopped fully operating in 2007 due to financial challenges. ZINWA staff in
its nine workshops around the country was said to be good at maintaining and repairing
pumps, motors, pipes, valves and motor vehicles. Although, this could not give them a
competitive advantage over others since it was not their core business and there were a
lot of players who can do that, it still remained one of their core competencies which
could make it profitable.

The Informants reported that ZINWA staff posses a key competency that has made
them execute all the above mentioned competencies. This is the ability to perform well
under harsh economic conditions especially the past ten years when the country was
faced with high inflation, foreign currency shortages, high unemployment rate, fuel
shortages, food shortages and disease outbreaks. At the peak of harsh economic
conditions in 2007 to early 2009, some public service providers such as hospitals,
clinics, schools, ZESA and Tel One could not fully operate and some even closed
especially in the health sector but ZINWA never stopped supplying water although the
supplies were not consistent. With valueless salaries and poverty, ZINWA workers
never went on strike and continued to soldier on providing their services. The results
show that, ZINWA workers are even able to do at least two more tasks other than those
they were trained to ado a demonstration of multi skilling. Prior to the formation of
ZINWA in the 1990s, the then Department of Water Resources Development had a
policy of rotating staff from one section to the other. Thus one would work for two year
under the Hydrology section then move to Planning, to Operations and to Designs and
Construction, so that at the end of ten years one would have all multi skills. Even the technical workers were exposed to the general administrative and financial tasks such that they could easily execute those duties the benefit of the Authority.

The responses show that the core competencies possessed by ZINWA came about as a result of commitment, in-house capacity building, on the job problem solving and academic education. The drive from the parent ministry to compel ZINWA to provide water as a social good adequately and consistently instilled a sense of hard work and service delivery into ZINWA workers. This made the workers come up with solutions to solve any challenges that may hinder executing their mandate. This also made the workers being able to work under harsh conditions displaying commitment and loyalty to their work. The process of induction and orientation of new staff members exposed ZINWA workers to various operations of the authority. Rotational deployment of staff also contributed to multi-skilling of these workers thus could execute multi tasks. Short courses and problem solving troubleshooting also contributed towards building core competencies in ZINWA. Above all, the basic education that was attained by workers at ordinary, advanced, certificate, diploma and degree level enabled them to join the authority with some inherent capabilities which would then be reinforced whilst working. The staff development programme for certificate, diploma, degree and post graduate qualifications also helped in building the various core competencies in ZINWA.

As discussed in Section 4.2.3, core competences complete the full benefits of resource possession. Thus the above mentioned core competences which are similar to those highlighted in Section 4.2.3 would enable ZINWA to engage in various business activities at an advantage over would be competitors. The core competences of ZINWA came about a result of bundling and integrating specialized equipment, infrastructure, instruments, training and development, experience and reputation thus agreeing with the depiction of capabilities given by Grant (1991) cited by Soto-Acosta and Meron-Cerdan (2008) as the complex patterns of co-ordination between people and other
resources. Thus the occurrence of core competences in ZINWA is conforming to the cited literature in Chapter 2 above.

4.3.4 ZINWA’s Resources and Core Competencies Use for Survival
After identifying the resources and core competencies possessed by ZINWA, the informants also identified new income generating projects that could be carried out to increase revenue inflows for ZINWA. Table 4.11, summerises the suggestions given by the respondents:
<table>
<thead>
<tr>
<th>RESPONDENT</th>
<th>NEW IDEA/PROJECT</th>
<th>RESOURCES USED</th>
<th>CORE COMPETENCIES USED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Director-Special</td>
<td>-Changing the mindset of staff towards commercialization of the organization</td>
<td>-Human capital</td>
<td>-Ability to work under harsh conditions. Change management skills of management &amp; consultants</td>
</tr>
<tr>
<td>Operations Manager</td>
<td>-Control of operating costs &amp; proper allocation of resources</td>
<td>-Human capital, water infrastructure, buildings &amp; equipment</td>
<td>- Water resources management. Water treatment &amp; reticulation</td>
</tr>
<tr>
<td></td>
<td>-Sustainable pricing of water</td>
<td>-Administration equipment &amp; infrastructure</td>
<td>-Water resources management. Water treatment &amp; reticulation</td>
</tr>
<tr>
<td></td>
<td>-Irrigation development. Partnership with large irrigators. Strong marketing &amp; promotion of raw water usage</td>
<td>-Water infrastructure</td>
<td>-Water treatment and reticulation</td>
</tr>
<tr>
<td></td>
<td>-Fisheries</td>
<td>-Water storage infrastructure</td>
<td>-Aquaculture knowledge of strategic partners</td>
</tr>
<tr>
<td></td>
<td>-Hydro-electricity power</td>
<td>-Water infrastructure &amp; rivers</td>
<td>-Hydrology &amp; electrical engineering knowledge of strategic partners</td>
</tr>
<tr>
<td></td>
<td>-Bottled water</td>
<td>-Water infrastructure</td>
<td>-Water treatment &amp; reticulation</td>
</tr>
<tr>
<td></td>
<td>-Boating, lodging</td>
<td>-Water infrastructure</td>
<td>-Civil engineering &amp; hospitality knowledge of strategic partners</td>
</tr>
</tbody>
</table>

**Table 4.11 New income generating projects at ZINWA**
<table>
<thead>
<tr>
<th>Commercial Manager</th>
<th>-Irrigation development. Partnership with large irrigators</th>
<th>-Water infrastructure</th>
<th>-Water treatment and reticulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td>-Bottled water</td>
<td>-Water infrastructure</td>
<td>-Water treatment and reticulation</td>
</tr>
<tr>
<td></td>
<td>-Alluvial gold mining</td>
<td>-Rivers</td>
<td>-Hydrology &amp; mining knowledge of strategic partners</td>
</tr>
</tbody>
</table>
All the respondents reported that ZINWA could use its resources and core competencies to increase its profitability thus survive in the harsh conditions is faced with. The following were suggested as ideas/projects of making use of ZINWA resources and core competencies: hydro-electric power stations; irrigation development; improve water supply using photovoltaic power; fisheries; lodges; bottled water; water kiosks and alluvial gold mining. These would be either executed by ZINWA on its own or with partners.

The first respondent highlighted operational issues could be implemented in ZINWA using their resources. The first one was changing ZINWA employees’ attitude towards that of commercialization would help in increasing the performance of the organization. Most ZINWA workers had been working as civil servants in government and were not exposed much on executing duties on a commercial basis thus they needed to change their mindset. This was also cited as one of the reasons that led to the failure of the full implementation of the laid down business strategies. For this to take place there would be the use of human capital and knowledge of change management of ZINWA management and consultants. The ability of the workers to perform any task under harsh conditions is one of the core competences of ZINWA that could be used to make the organization more profitable.

The issue of rationalizing operational costs and appropriate allocation of resources was also highlighted as one of ways of using ZINWA resources to increase its profitability. Lack of control of resources and improper allocation of resources leads to inefficiencies and thus increased cash outflows. This would be done through business process re-engineering which eliminates non-core business processes and operations. Ultimately resources will be apportioned where they are productive and there will be increased efficiency and thus increased profitability. In implementing this there will be a use of all the resources possessed by ZINWA. There would also be the use of water resources management, water treatment and reticulation core competencies of ZINWA.
The other operational issue was restructuring of the tariff regime that was not sustainable. One of the challenges that was noted was the use of a blend price across the whole country. Moreover, this was also controlled by central government in order to protect the vulnerable groups in the society. However, the price controls did not come with subsidies to support them but rather led to ZINWA being strained in its operations. Catchment or station specific tariffs will help in removing losses which are being made through the use of blend prices. In some instances customer specific sustainable tariffs would also enable ZINWA to remain afloat. In implementing this idea, there would be the use of administration equipment such as computers and core competencies of financial and water resources management.

Using the existing dams, new ones and rivers, it was reported that ZINWA could benefit from electricity generated using water at these reservoirs. Examples of dams that have been targeted for hydro-electricity are Mutirikwi, Kondo, Nyatana and Tokwe-Mukosi. However, Gairezi, Chimanimani and Biriwiri rivers were also reported to have good sites for hydro-electricity generation. The generated power will be for specific projects or would be sold into the national power grid. Hydro-power generation would be done through partnerships with energy firms. Development of irrigation systems to ensure supply of water to the edge field of the farmer was also reported to be another new project that could be done to gain benefits from the water and irrigation development competencies possessed by ZINWA. Most irrigators used their own means to reticulate water from either a dam or a river to their fields and most of them are not able to do it well. Those who did not have their own pumping and reticulation equipment were not able to make use of the water which is potential revenue for ZINWA. Where there were energy challenges, suggestions of using photovoltaic power (solar) were made, even for water supply systems which are diesel powered.

Following the mission of providing water based lifestyles, it was reported that fisheries, boating, lodging and any water based entertainment could be developed at every dam owned by ZINWA and the facilities would be open for leasing to any potential
entrepreneurs. This would make sure that the authority realizes income from non-water consumptive activities. The abundant ground water under the control of ZINWA could be used to do a water bottling project. Apart from generating extra revenue to ZINWA, this project would guarantee customers of clean water ideal for drinking and cooking whilst the tap water could be used for bathing, washing and other chaos thus following world standards. Water kiosk concept was also suggested. This is whereby ZINWA would provide bulk water purchase points where people who are staying where full portable water development is to occur could come and buy the water in bulk. These points are usually hydrants at main water lines which would be used to develop those places are staying. This method would ensure that ZINWA provides water to everyone at the same time getting some income that it would not have had if there was no bulk supply.

Alluvial gold mining along rivers has been increasing in the past five years. It was reported that ZINWA being the custodian of all rivers would make use of this and venture into the lucrative business. Since it did not have expertise in this, partnerships were reported to be ideal for these projects. Apart from proving gold for commercial purposes, alluvial gold mining would also help in desilting silted rivers.

4.4 Summary of Findings
The results of this study brought out a number of issues. Below is a summary of the research findings:

i. ZINWA recruited its managers from staff that is within the organization.
ii. ZINWA business strategy was not fully understood by all the managers.
iii. ZINWA lacked consistency in governance policies.
iv. ZINWA’s structure did not fit well with the available business strategy.
v. There was no adherence to the existing strategy in execution of work in ZINWA.
vi. The research established that human capital, water infrastructure (dams, canals, pipelines, boreholes), finances, buildings and equipment (vehicles, pumps,
motors, filters, draglines) were the resources owned by ZINWA. Bundling and integration of these resources enable ZINWA to attain its business objectives.

vii. All the resources of ZINWA have any of the attributes in question however; it is only human capital and water supply infrastructure that have all the four attributes. They are thus the only resources that are particular to ZINWA and heterogeneous to other organizations. Human capital and water supply infrastructure therefore follow the VRIN model of the RBV theory that was suggested by Barney (1991).

viii. The core competencies (capabilities) of ZINWA are: design and construction of water infrastructure; treatment and provision of water; water resources management and ability of workers to deliver service under harsh socio-economic conditions. These attributes came about due to formal education of employees, induction and orientation programmes, on the job training, continuous staff training and development and the pressure from central government to deliver. These core competencies are realised as a result of combining human capital with other resources to attain the objectives of ZINWA.

ix. Results show that ZINWA has not been fully utilising its resources and core competencies to increase its viability. Poor organizational communication as a result of an unfit organogram and general mismanagement of resources were cited as the reasons for limited use of resources and core competencies in ZINWA. The other reasons established are lack of finances to lubricate the business processes under bad macroeconomic conditions and political influence. Thus the situation at ZINWA does not follow the VRIO model by Barney (2001), a modification of the VRIN model which is key for application of the RBV theory of the firm. This is because ZINWA as an organization failed to apply its resources and core competencies (capabilities) to gain sustainable competitive advantage thus improve its profitability.
x. The study also established that the resources and core competencies of ZINWA can be used to increase new business in the form of fisheries, boating and lodging at various dams. Bottled water could be made using ground water from boreholes, water kiosks, hydro power stations and development of irrigation systems to the farmers’ edge field are some of the projects that can be done to make use of ZINWA’s resources and core competencies.

xi. The study largely conforms to the proposition since there was very limited application of the RBV theory of the firm at ZINWA as a result of limited support of top management to make use of their resources and core competencies. Although, the current business strategies were crafted to make use of the resources and core competencies of ZINWA it is not clear if they were actually based on the RBV theory.

4.5 Conclusion
This Chapter focused on presentation and discussion of data that was collected from six semi-structured questionnaires and three semi-structured interviews of ZINWA management. The informants were judgmentally chosen for their roles as ZINWA management in business strategy formulation, planning, implementation and monitoring and evaluation. Data collection instruments were administered to answer the first four objectives of this study. Data was presented using data display tables and descriptive analysis. There were also some discussions of the findings linking them with the available relevant literature. The results showed that the ZINWA business strategy is not fully embraced by every manager. The key resources owned by the case under study were human capital, water resources infrastructure, finances, buildings and equipment. Of the identified resources only human capital and water resources infrastructure followed the VRIN model. The results also brought out civil engineering, water treatment and supply, water resources management and the ability to deliver (services) under harsh economic conditions as the core competencies possessed by ZINWA. It also emerged that the authority did not fully utilize its resources to improve its
profitability. The results also showed various projects such as irrigation development, hydro electricity generation, fisheries, boating and water bottling which could be carried out by ZINWA using their resources and core competencies to improve on their profitability. The following Chapter 5 focuses on the conclusions from the study, limitations and challenges experienced in the study, recommendations and areas of further research.
CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This Chapter infers and concludes findings from the previous Chapter. It also gives recommendations, limitations of the study and areas for further study. The inferences are made on each of the objectives of the study.

5.2 Conclusions

5.2.1 Objective One: To establish the resources that are owned by ZINWA
Conclusion:
The research established that human capital, water infrastructure (dams, canals, pipelines, boreholes), finances, buildings and equipment (vehicles, pumps, motors, filters, draglines) were the resources owned by ZINWA.

5.2.2 Objective Two: To determine if resources possessed by ZINWA are valuable, rare, cannot be imitated by other firms and non-substitutable
Conclusion:
All the resources of ZINWA had some of the attributes in question however; it was only human capital and water supply infrastructure that had all the four attributes. They were thus the only resources that are particular to ZINWA and heterogeneous to other organizations. Human capital and water supply infrastructure therefore followed the VRIN model of the RBV theory.

5.2.3 Objective Three: To establish the competences of ZINWA
Conclusion:
The study established that the core competencies (capabilities) of ZINWA were: design and construction of water infrastructure; treatment and provision of water; water resources management and ability of workers to deliver service under harsh socio-economic conditions. The results also showed that these attributes came about due to
formal education of employees, induction and orientation programmes, on the job training, continuous staff training and development and the pressure from central government to deliver.

5.2.4 Objective Four: To find out if ZINWA has been using its resources and core competencies to increase its viability

Conclusion:

It is evident from the results that ZINWA had not been fully utilising its resources and core competencies to increase its viability. Poor organizational communication as a result of an unfit organogram and general mismanagement of resources emerged as the reasons for limited use of resources and core competencies in ZINWA. The other reasons established were lack of finances to lubricate the business processes under bad macroeconomic conditions and political influence. Thus the situation at ZINWA did not follow the VRIO model a modification of the VRIN model which is key for application of the RBV theory of the firm. However, the study also established that the resources and core competencies of ZINWA could be used to increase new business in the form of fisheries, boating and lodging at various dams. Bottled water could be made using ground water from boreholes, water kiosks, hydro power stations and development of irrigation systems to the farmers’ edge field are some of the projects that could be done to make use of ZINWA’s resources and core competencies.

5.2.5 Test of the Research Proposition

The proposition of this research was “RBV theory of the firm did not yield benefits at ZINWA because of the limited knowledge by management on how to apply it”. The study largely conforms to the proposition since there was very limited application of the RBV theory of the firm at ZINWA as a result of limited support of top management to make use of their resources and core competencies. Although, the current business
strategies were crafted to make use of the resources and core competencies of ZINWA it was not clear if they were actually based on the RBV theory.

5.3 Recommendations
This section makes recommendations to ZINWA board and management on issues which the researcher deems necessary for the improvement of operations of the organization. These are based on the research findings cited above.

5.3.1 Strategic Management
Firstly ZINWA has to adopt a governance policy which either comes from the parent ministry or is crafted by it board of directors in accordance with the Water Act and ZINWA Act. Other policies such as the human resources, ICT, audit, credit, disaster recovery and operations will then be guided by the main corporate governance policy. Strategic business planning processes should be fully participatory with every level of operations being involved and represented. These strategies can be planned, implemented, monitored and evaluated to their expectations if they are driven by a senior member of management who is dedicated to the success of the authority. To complete the business strategy, there has to be a complementary organogram that enables the easy flow of information and execution of the business strategies.

5.3.2 Valuation of ZINWA Resources
Valuation of resources owned by ZINWA will enable them to rationalize their operations in-order to improve efficiency and thus productivity. After valuation of resources and core competencies the organization will be able to carry out business process re-engineering thus eliminating non-core and costly operations and resources. Human capital audit is required to establish the quality and quantity of skills that are available in the organization.. Once the right human capital has been put in place, there is a need to have performance management of which human capital is part of the strategic resources in this process. These will establish the relevance of certain human capital in the business and would provide a guide for the need for training and development of
people in certain key areas. Water infrastructure valuation at least once every year would enable ZINWA to identify any need of investing in new technology that is more efficient in service delivery.

ZINWA should also adopt a green business model. This is when the business model is based on the balance of the existence of natural resources, people (employees and community) in the business environment and the profits that are made by the organization. Sustainable business processes reduce negative impacts of business processes to the employees, people in the community and the environment at the same time maintaining profit levels to the organization.

5.3.3 Use of VRIN Resources and Core Competencies (Capabilities)
Since there is under utilisation of resources and core competencies at ZINWA, there is room to make use of these attributes. Following the concept of water based lifestyles, ZINWA has a great potential to venture into lodges, fisheries and game parks around dams. The current more bottled water plants can be set up even in every SBU as the potential is very high. ZINWA also has a potential of developing irrigation schemes in areas close to their dams so that they can sell more raw water to irrigators. ZINWA can also form partnerships with companies which consume a lot of raw water such as Tongaat Hullet in the South Eastern Lowvelds, Ratings in the South Eastern Lowvelds, and ARDA that has farms all over the country. Water kiosks which were suggested by some respondents in Chapter 4 above can also be a source of extra revenue to ZINWA whilst providing water a social good to people. It was also suggested by some respondents that ZINWA can partner for hydro-electricity power generations at their existing (Mutirikwi, Osborne) and future (Tokwe-Mukosi, Kondo and Silverstroom) dams

ZINWA can also establish trading ventures which specialize in water related goods such as pumps, motors, pipes, meters, fittings, water treatment chemicals, geysers, tapes and electrical components. This can be complemented by providing plumbing services
to the general public as a way of providing a comprehensive water solution to customers. The authority can also use its competencies in civil, structural, mechanical and electrical engineering and water resources management to set up a training school that can train its own staff, local authorities staff, farmers, companies and any other people on issues related to water. Specific areas of training include billing, water treatment, dam maintenance, swimming pool management, repair and maintenance of pumps and motors and irrigation systems design and maintenance. Consultancy in civil and structural engineering and environmental management to the general public can also be sources of extra revenue to ZINWA.

5.4 Study Limitations and Areas for Further Research
During the course of the study the researcher encountered some challenges that could compromise the quality of this research. Some of the respondents could not give positions on the organogram that were responsible for the poor performance of ZINWA. This could have been due to fear of victimization. Although ZINWA was a typical case of a firm in the public sector of Zimbabwe, it could have been ideal if other two cases each in different sectors such as energy and transport were included to get a broader picture of the public sector of Zimbabwe.

Considering the findings and limitations of this study, the researcher proposes some areas for further research in order to fully understand the application of the RBV theory of the firm in public companies such as ZINWA. There is a need to assess the resource valuation systems in public enterprises. This is to ascertain how these companies valuate their resources. Evaluation of performance management systems being used in public companies would provide an assessment of resource utilization of by these companies.
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Appendix I
AN EVALUATION OF THE USE OF THE RESOURCE BASED VIEW (RBV) THEORY IN ZIMBABWE’S PUBLIC SECTOR: THE CASE OF ZINWA

QUESTIONNAIRE FOR ZINWA MANAGEMENT

Number………. 

This study is being carried out by Graham Mugati a student at the University of Zimbabwe in partial fulfillment of the requirements for a Masters degree in Business Administration. This questionnaire is strictly for academic purposes and will not be used for anything else unless the authorities find it necessary to adopt some of its recommendations. The information that you are going to provide is going to be treated as private, confidential and exclusive. It will not in any way be used to harm the respondent completing this questionnaire or the organization/department that they work for. Your co-operation will be greatly appreciated in assisting to accomplish this research project.

(Please fill in the blank spaces and tick in a box where applicable. You can continue writing on a blank sheet if there is need to write more information)

SECTION A: DEMOGRAPHICS
1. Sex
   Male □   Female □

2. How old are you?
   a. 20-35 years □   b. 36-45 years □
   c. 46-55 years □   d. >55 years □

3. Profession

4. Period (years) at current position

SECTION A: GENERAL

5. What is the vision for ZINWA? Describe ZINWA’s mission statement.

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6. List the ZINWA’s core values

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................................................................................................................................................

133
7. Explain the main business strategies of ZINWA.

8. What are the key drivers of the business strategies named?

9. Name the challenges you experienced in implementing your strategies.

SECTION C: OBJECTIVES

- To establish the resources which are owned by ZINWA
10. List the resources owned by ZINWA in order of their importance.

11. Explain what makes the above mentioned resources important to the operations of ZINWA.

- **To determine if resources possessed by ZINWA are valuable, rare, cannot be imitated by other firms and non-substitutable**

12. What value do you attach to the resources that are possessed by ZINWA?

13. How accessible are the resources possessed by ZINWA?
14. To what extent can ZINWA resources be imitated by other firms?

15. What are the substitutes of the mentioned resources and in what way are they substitutes?

- To establish the core competencies of ZINWA

16. Explain the core competences of ZINWA.
17. Explain how you acquired your core competences.

• To find out if ZINWA has been using its resources and core competencies to increase its viability.

18. Explain how ZINWA has been using the above mentioned resources to increase its profitability and hence its viability.

19. What challenges have you experienced in using your resources and core competences to increase ZINWA’s profitability?
20. How have you tackled challenges experienced at ZINWA?

END

Appendix II
AN EVALUATION OF THE USE OF THE RESOURCE BASED VIEW (RBV) THEORY IN ZIMBABWE: CASE OF ZINWA

MANAGEMENT INTERVIEW GUIDE

This study is being carried out by Graham Mugati a student at the University of Zimbabwe in partial fulfillment of the requirements for a Masters degree in Business Administration. This interview is strictly for academic purposes and will not be used for anything else unless the authorities find it necessary to adopt some of its recommendations. The information that you are going to provide is going to be treated as private, confidential and exclusive. It will not in any way be used to harm the respondent completing this questionnaire or the organization/department that they work for. Your co-operation will be greatly appreciated in assisting to accomplish this research project.

ISSUES FOR DISCUSSION

i. ZINWA’s vision, mission statement, core values and business strategies. The fitness of the structure to the strategy and challenges encountered were also discussed;

ii. The resources owned by ZINWA and why they give them a competitive advantage;

iii. Core competencies of ZINWA and how they were acquired; and

iv. Use of the resources and core competencies in-order to gain competitive advantage.

END