



## MIDLANDS STATE UNIVERSITY

## FACULTY OF ARTS

## **DEPARTMENT OF DEVELOPMENT STUDIES**

## TOPIC:

An assessment on how the closure of mining industries has affected the development of small towns in Zimbabwe: A Case Study of Shabanie Mine in Zvishavane.

BY

## RUMBIDZAI PRECIOUS ZINYAMA

R132586H

# DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF THE BACHELOR OF ARTS HONOURS DEGREE IN DEVELOPMENT STUDIES DEGREE.

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## **RESEARCH ACKNOWLEDGEMENT FORM.**

#### MIDLANDS STATE UNIVERSITY

## FACULTY OF ARTS

## DEPARTMMENT OF DEVELOPMENT STUDIES

NAME OF STUDENT RUMBIDZAI PRECIOUS ZINYAMA

REGISTRATION NUMBER R132586H

NAME OF SUPERVISOR MR S. NHONGO

## **RESEARCH TOPIC**

An assessment on how the closure of mining industries has affected the development of small mining towns in Zimbabwe: A case study of Shabanie mine in Zvishavane.

I, the undersigned do/ do not acknowledge that the above student has consulted me for supervision on his research project until completion. I therefore do/do not advise the student to submit his work for assessment

Signed..... Date.....

## **DEDICATION.**

I would like to dedicate my thesis to my family for their unwavering support and love through the trying times of my studies up to the day I officially finished my Honours Degree.

#### ACKNOWLEDGEMENTS.

I would like to extend my profound gratitude to the Almighty God and all those who made my end goal, the submission of this thesis a success.

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#### **ABSTRACT.**

The aim of this research was to assess how small mining towns in Zimbabwe have been affected by the closure of mining industries in terms of development using the case study of Shabanie mine in Zvishavane. In assessing the closure of mines, sustainable development was looked at to give the framework of what is expected in development as well as sustainable development goals. ZMDC was assessed in this research as it is the corporation that is in charge of maintaining and caring for the mines facing closure and closed. A number of aspects concerning the closure of mines were taken into considerations to the upbringing of this research. These are, importance of mining to development, negative effects of mining closure on development, indigenisation policy, reasons for the closure of Shabanie and the negative and positive reasons for the closure. Kamativi mine is briefly looked at to see what closure does to mine. Mines can close without warnings due to lack of markets and lack of machinery. However, mines should adopt the planning of mine closure as a necessary measure, avoiding a link with politics and making sure that worker welfare is maintained. The education of mine workers should be exercised for the establishment of an effective mining industry with productive skilled workers aiming at developing the area they operate in and Zimbabwe. The major research instruments used were interviews, questionnaires and structured observation. Descriptive methods were used namely qualitative approach and quantitative approach as the research design.

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ACRONYMS DMP	Department of Mines and Petroleum
DRC	Democratic Republic of Congo
EIA	Environmental impact Assessment
EPA	Environmental protection Authority
EP Act	Environmental Protection Act
GO	General Offices
HIV	Human immune Virus
ICT	Information and Communication Technology
MSU	Midlands State University
NGOs	Non-Governmental Organisation
POSB	Peoples Own Servings Bank
PPE	Personal Protective Equipment
RSA	Republic of South Africa
SDG	Sustainable Development Goals
STI	Sexually Transmitted infections
UNDP	United Nations Development P
WA	Western Australia
WHO	World Health Organisation
ZANU PF	Zimbabwe African Union Patriotic Front

ZESA Zimbabwe Electricity Supply Authority

ZMDC Zimbabwe Mining Development Corporation

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#### **CHAPTER 1: THE PROBLEM AND ITS SETTING**

## **1.1 Introduction**

Mining is a major sectorial player in the economic growth of Zimbabwe. Mining had put Zimbabwe on the world map but closure of mining industries has raised eyebrows. Closure of mining companies has affected the development of small mining towns in a saddening manner. These mining companies had seen the development of road facilities, rail network, water and sanitation, ICT and manufacturing and infrastructural development. The near closure of Zimplats resulted in people losing their jobs leading to a higher rate of unemployment. Workers from closed Zisco-Steel lost their jobs and are failing to access food and health services (Business Herald 13 August 2014). This has made development to come to be standstill as other businesses are affected as well like the banking sector. Continued closure of these mines has led to people being unable to acquire education, health facilities, shelter, and food thereby failing to provide individual and economic development resulting with an underdeveloped economy.

#### **1.2 Background of the study**

Mining is the cornerstone of the economic development turnaround of Africa. It saw countries develop fast after the Second World War. In 1992, the World Bank identified Zimbabwe, along with DRC and Namibia as 'category A' countries requiring the highest level of investment to make it big in the mining sector thus showing that Africa when it comes to mining was growing fast and being recognised in the world. Modern mining began in 1892 and by 1990 over forty minerals were being exploited and the two most valuable products by far were gold and asbestos in the past 100 years but this changed with the emergence of nickel and ferrochrome as major exports and recently the exploitation of platinum group mineral UNDP. Asbestos's importance in the development of the countries was found to have been essential in the developmental growth of the economy.

In Southern Africa, South Africa and Botswana are the top two countries who are being recognised mostly in mining as they are well invested and have good relations with the industrialised countries. Zimbabwe as a country has been doing well in the mining industry as mining accounts for 11% of the gross domestic product (GDP) Makore and Zano 2012,

which is major in the development of the country. This has seen small mining towns forming the nucleus of some of the country's economic growth points. Shabanie mine in Zvishavane is an example of a mining town that was transformed by mining from a small dusty rank to a small town.

Shabanie mine started asbestos operations in 1916 and developed into one of the small towns in the country. It slowly grew until it was connected to a railway network in1928. The mine was granted municipality status in 1968 which resulted in it being transformed into a town. It has been housing over 5,000 workers staying in places like Kandodo, Noel vale, Maglass, Mkwasha, Hill view, Ailovo, Chinda heights and Birthday supporting over one hundred thousand (100,000) families from the six constituencies surrounding the mine. At its peak it produced an output of more than one hundred and forty thousand (140,000) tonnes of asbestos (Financial Gazette 2016). Between 1965 and 1978 asbestos was the countries principal mineral in terms of the value of output (Segula 2015) proving Shabanie mine's asbestos as the economic backbone of the country of Zimbabwe. Shabanie mine has seen infrastructural development with the construction of schools, recreational areas, houses, clinics and a hospital in Zvishavane. Mashava mine, Temeraire mine, King mine was opened as sister mines of Shabanie mine with its backing. Under the Indigenisation Policy Act for black empowerment, the mine was acquired by Mutumwa Mawere who operated the mine until 2004 when the company was seized by the government, starting its fast track road to closure.

#### **1.3 Statement of the problem**

Mining companies in Zimbabwe have been facing a lot of challenges that has led to their closure. These challenges include lack of investment, politics, corruption and smuggling, poor management practices, indigenisation policy, fast track land reform, economic weather, sanctions, mal administration and lack of machinery hindering the development of these mining industries and the area in which they operate in. Mining closure may be planned, but most often they happen prematurely (Laurence 2006). Premature closure of Shabanie mine has seen closure planning as a vital step to take for mining. Zimbabwe Mining Development Corporation (ZMDC) was established by the government of Zimbabwe in 1982 under the Parliament Act no 31 to oversee the maintenance of mining industries to make sure they develop. Indigenisation policy was established in 2007 as a measure to improve the

production of mines and investment. This policy by Zimbabwe was established to encourage black empowerment aiming to improve mining productions through hard work as workers own them because they are black. However, the indigenisation policy has failed to stop mines from closing leading to more mining companies' closure which has seen Zimplats and Zisco steel retrenching workers and almost closing. Although it was implemented as Shabanie mine was already facing closure, the indigenisation policy helped in the fast track closure of the mine.

In the early 1990s Canadian company Turner and Newall considered selling their associated mines including Shabanie Mashava mines because exporting asbestos was becoming a nightmare due to the restrictions on the use of asbestos the price slump in the mineral business (Chimunhu 2013). This is when Shabanie mine's journey to closing started. Asbestos market not paying meant fewer investors as people invest where they also make profit. This and above challenges can be best brought out using Shabanie mine as a case study. The closure of Shabanie mine resulted in massive school dropouts, high mortality rates, people losing accommodation and jobs, development stopped and investors stopped investing in the mine all of which crippled the small town and its road to being a prosperous developed town.

#### **1.4 Conceptual framework**

Closure of industries is when the once functioning mining companies are no longer active due to many challenges they face especially economic instability which leads to lack of investors and the death of industries. The closure of mining industries has resulted in people living below the poverty datum line as people are no longer able to take care of their families hence the cessation of development in these small towns. An unemployed Zimbabwean is not able to send his child to school and lack of education equals to no ideas on how to develop.

The closure of mining industries is done by the Environmental Protection Authority (EPA) which is the statutory authority of the environmental act (EP Act) Sellers 2015. Its duty is to conduct Environmental Impact Assessment (EIA) of significant proposal in Western Australia (WA) in accordance with part (vi) of this Act. EPA goes on to assess mine closure-this is a significant risk and identifies rehabilitation and closure as a preliminary key

integrating factor of a proposal (EPA 2013a). It also assesses the key environmental factor of rehabilitation and mine closure as part of the e EIA process. These steps were not taken by Shabanie mine as there was abrupt closure leading to the people facing the effects mostly negative from its closure.

The department of mines and petroleum (DMP) is also involved in the assessment of mine closure. This is the lead regulator and decision making authority for mining projects in Western Australia (WA) under the mining Act of 1978. Sellers (2015) say DMP is required to formerly refer a mining proposal to the EPA. EPA will then make a decision as to whether the proposal requires a formal EIA. This environmental assessment will see how long the project will last and how much is needed to pay for the future closure of a mining industry. These steps whether they have been followed by the Shabanie mine or not is still a step that is vital as it would have prepared the mine owner, the workers and the investors including the government for the worst which would have helped in the effects of the mine closure being effectively handled.

Effects of the closure of Shabanie mine are mainly seen in Zvishavane. These effects have seen the quick stop of development as businesses have closed down, people doing immoral activities and seeing former workers not being able to financially sustain themselves. High death rate has come about in places with closed mining companies due to immoral behaviour as a source of livelihood. However, the effects of closure of mines has also had positive impact on the development of these towns as people have ventured into different sectors in order to survive which has given birth to the informal sector with microfinance institutions emerging to cater for these small businesses hence development.

Development is when an area where people live is transformed from being a growth point to a township to a small town until it becomes a city due to an activity which will be done in that area to provide money for its growth. Development can be also defined as the process of converting land to a new purpose by constructing buildings or making use of its resources (United Nations World Commission 1987).

Todaro and Smith (2006) defines development as a multi-dimensional process involving major changes in social structures, popular attitudes and national institutions as well as the acceleration of economic growth, the reduction of inequality and the eradication of poverty.

The definition makes it clear that that development is made up of many ideals and when they are met development is said to have taken place in that certain region or state. Development determines the type of investment that comes the way of a particular person or sector. All that is needed is working hard for development goals to be achieved.

A small town is a place that has modernised from being a rural area to a growth point and from there to township until it becomes a town which has businesses like banks and big supermarkets offering employment to the people in that town. For a town to be constructed there has to be what is known as environment footprint, environment footprint is the concept of a land and water area that is needed to support indefinitely the standard of living of a given human population (Ritchie et al 2009).

European Union defined small towns as one with a population between 1 500 and 40 000 inhabitants. A small town also has a municipality which looks over it and skilled leadership which is able to handle the situation that is brought by being a town, banks, supermarkets, ordinary shops, hospitals, markets, police camps and prisons as well as industries are found in a town.

## **1.5 Research objectives** General objective

To assess the development brought by Shabanie mine to Zvishavane and effects on this same development brought by its closure.

## **Specific objectives**

- To understand the importance of a skilled workforce to avoid high unemployment rates in the future.
- To look at the reasons for the closure of Shabanie mine and assess if ZMDC is effective in managing struggling mines or it should be dismantled or have leadership changed.
- ♦ Come up with recommendations to avoid future closure of mining industries

## **1.6 Research questions** General question

What positive and negative effects did Shabanie mine have on the development of Zvishavane?

## **Specific questions**

- Q.1 How did Zvishavane a small growing mining town manage the closure of Shabanie Mine.
- ♦ Q.2 What were the causes of Shabanie mines closure'
- Q.3Was the closure of Shabanie Mine because of mal administration or it was politically motivated.
- Q,4 What is the meaning of Indigenisation as a policy in mining

## **1.7 Significance of the study**

This research will benefit mine owners, academics, geologists, mine workers and ministry of mines and ZMDC in understanding the causes of the closure of Shabanie mine and understanding what is needed to save a mine in order to avoid seeing the negative effects of the closure of a mine in a small town. These people will help in the maintenance of an environment where the mining industries are protected and attracted to investors as they will know the benefits brought to a place as well as a country due to productive mining which include employment and development.

## Mine owners

They will be able to understand the importance of having shareholders or an active mine committee in a company so as to be able to help each other in terms of avoiding a crisis in the future and should have a closure plan before they start operations.

## Academics

Will be able to know the importance of mining in a society and how to deal with early warning signs and what a good administration which is not corrupt can do in the sustenance of a mining company.

## Mine workers

These workers will be helped by this research to see the importance of acquiring education so as to understand what mining is all about hence being able to help with ideas for the betterment of a mining company they would be working for.

#### Ministry of mines

This ministry will be helped in understanding the importance of investors in mining activities and will encourage the drafting of policies that are investor friendly. Avoidance of politics in running companies for a fruitful outcome will also be learnt.

#### ZMDC

A corruption free administration which operates this corporation will be created so as to promote the month to month monitoring of mines by experts who are able to identify early warning signs in a mine to avoid closure and prevent people from losing their jobs.

#### Geologists

The research will help the geologists to help mine owners in understanding the level of mineral deposits so as to avoid surface shaft mining where underground mining s needed. Geologists should educate mine owners on the type of mining required for a specific mineral to avoid closure of mines with unreachable resources underground.

#### **1.8 Delimitations**

Zvishavane is a mining town in the Midlands Province. It is surrounded by low hills and it is 97km west of Masvingo on the main road of Bulawayo to Masvingo. It is 121kilometres from Gweru and 27 kilometres from Mberengwa. As a mining town, it has rail links to Gweru, Beitbridge, Harare, Bulawayo which then links to South Africa and Mozambique.t has a population of 35,896 (Geonames Geographical data base 2014).

Platinum, gold, asbestos, beryl, chromite iron ore are also mined in this area at Buchwa and diamonds have also been recently discovered at Murowa. The focus of the research is Shabanie mine a bigger asbestos mine which gave birth to sister mines and helped in the development of Zvishavane but suffered closure. Zvishavane was formerly called Shabanie. The name has been said to derive from 'Shavani', a Ndebele word meaning finger millet and trading together according to Wikipedia 2016.

#### 1.9 Limitations of the study

This study is politically based and this makes the research more difficult and limiting as more information is secretive and not to be talked about. Information about Shabanie mine is hard to access especially from ZMDC which was running this mine after it was taken away from Mutumwa Mawere. Ministry of mines refuses with Shabanie mine information and this makes it hard for the researcher to put together a convincing research. Scholars on Shabanie mine closure are limited which is also a challenge as one does not have a lot of information to understand Shabanie mine. This researcher went to ZMDC and chamber of mines and asked for information on Shabanie mine to no avail. Using the available scholars for information whilst asking and interviewing different people on the current situation and effects of Shabanie mine compared to the time it was operational was used by the researcher.

## 1.10 Chapter breakdown

Chapter 1

This chapter comprises of introduction to the research, background of the study, statement of the problem, research objectives and questions, delimitation and limitations of the research and significance of the study.

#### Chapter 2

Literature review on the effects of the closure of Shabanie mine on the development of the small town will be looked at with the example of two other mines which has closed down in Zimbabwe. Views from scholars will be discussed in this chapter.

#### Chapter 3

This chapter focuses on the methods used in collecting data showing the advantages of the data and its disadvantages of each data method used. It's a methodology based chapter.

#### Chapter 4

Data is presented and the findings are looked into in this chapter. Graphs, charts and tables will be used to present the evidence.

#### Chapter 5

Summary, recommendations and conclusion make up this chapter.

## **CHAPTER 2: LITERATURE REVIEW**

#### 2.0 Chapter Overview.

This chapter will give an understanding of mining and development, effects of mining closure on development, reasons for the closure of mines in Zimbabwe and the closure of Shabanie mine and its effects on development. Some of the sustainable development goals (SDG) of 2015 are going to be used in this chapter to understand the development expected in a mining town whilst addressing also the challenges that faced the mine of Shabanie and the effects of its closure on the development of Zvishavane. Some of these goals are to be used in understanding the gap left by the scholars in assessing the effects of mines closure bringing out scholars' bias for focusing more on the mining processes rather than the closure and how it affects development.

## 2.1 Understanding mining, closure and development

According to Wikipedia 2016 a mine is a site where mineral ores are extracted from the ground by excavating surface pits and subterranean passages. Minerals are found underground and in Zimbabwe the great dyke is a belt that has many minerals. Mines differ

in the sizes and grade of their ore which contributes to their economic contribution and lifespan. Mining helps the running of upstream and downstream sectors which benefit from good productive operations of a mine.

According to Down and Stock cited in Acheampang (2004) mining is the removal of minerals from the earth's crust in the service of man. Men are essential for the mining process to take place in the mining project

Mine closure takes place due to exhausted resources with social, economic, environmental and technical factors involved in making the activity of mining not attractive to investors. Globally the numbers of closed mines they can probably be counted in millions yet so called legacy mine sites have received relatively little attention in the academic literature (Worrall et al 2009). Scholars on mining have ignored the closure of mining sites, the reason for the closure of these companies and ways to avoid closure of mining companies in the future. This is a gap in the literature review of mining scholars.

Mining industries should have a mining closure plan when they open to avoid becoming legacy sites. This makes it easier for workers to find new jobs as they will be aware of when their mines will close thereby avoiding a rise in the unemployment rate when workers are retrenched. Otto (2009) has reviewed trends in mine reclamation and closure regulations in several jurisdictions, including various forms of financial assistance including upfront company payments to land rehabilitation funds.

Seller (2015) argues that before preparing a mine closure plan for existing sites or operations with approved commitment and or conditions that contain specific closure outcomes, landform designs parameters or rehabilitation criteria, proponents are encouraged to contact relevant DMP or OEPA Environmental Offices application of the guidelines to these sites operations to ensure that DMP and the EPA's rehabilitation and closure are achieved. This means there is a process that takes place before a company opens and thinks of closure. The Environmental Protection Authority will then take its steps in assessing the proposal and

understanding the proposed closure and the Department of Mines and Petroleum (DMP) will be there to make decisions on the projects to be undertaken as EPA will have taken care of the closure plan. The 2010 amendments to the mining act require a mine closure plan to be submitted to DMP for assessment and approval as part of mining proposal applications. Under the mining act where there has no break in tenure holders of mining tenements are responsible for any obligation imposed on that tenement including the rehabilitation of disturbed land related to mining activities even if the land was not disturbed through the operations of the current holder. The rehabilitation through payment of workers' salaries should be done by the ZMDC though the debts were done by Mutumwa Mawere. This saw the responsibility of paying the workers of Shabanie mine being taken over by ZMDC but failed because the asbestos being produced using shaft mining was low and could not get a higher price on the market.

According to Protection Authority 2011 there are steps to be followed when a closure assessment process takes place. These steps are:

- Is the mine site subject to the mining Act 1978?
- If implemented, is the proposal likely to have a significant effect on the environment
- Refer to EPA-Is rehabilitation and decommissioning a preliminary integrating factor?
- Proponent to provide more details- is rehabilitation and decommissioning a key integrating factor
- The EPA and the DMP will both assess mine closure

If all the above steps are done, then both parties will assess but if the first step is not done then only the EPA will assess mine closure and if all the stages are:

- Not referred to EPA or EPA decision is not assessed
- Rehabilitation and decommissioning not identified by the EPA as being significant
- EPA indicates that rehabilitation and decommissioning can be managed by the DMP or is not likely to cause significant impact or risk

Then only the DMP will assess the mine closure. The above steps being considered will make closure of mines effective and understood.

Brut land report states that sustainable development is development that meets of the present without compromising the ability of future generations to meet their needs (World Commission on Environment and Development 1987). Development should cater for the needs of the future generations but many companies lack that, as they use up all the resources to greedily meet their own needs in mining.

Todaro and Smith 2006 say in economics sustainable development can be explained through the capital approach. According to this approach, the productive assets can be divided into financial capital, fixed capital (buildings and machines), environmental capital (natural resources and other ecosystem services) and human capital (knowledge and skills). The development of infrastructure and machinery makes the development of a certain area to quickly take place and human capital which will in still knowledge and skills will make the employees to work better with more professionalism improving the production of the mining companies and doubling the development of that certain area or country.

An ecological approach to sustainable development is through resilience. Resilience can be defined as 'the capacity of a system to absorb disturbance and recognise while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks' (Walker 2004:2). Sustainable development can therefore be interpreted as maintaining and strengthening resilience so that all the change that takes place in a certain community will be maintained and will be productive for the development of the community and the nation for the enjoyment of the present and future generation.

The concept of sustainable development is commonly divided into three pillars or dimensions: economic, environmental and social. All three pillars need to be considered in order to achieve sustainable development. Economic is concerned with the factors that determine the production, distribution and consumption of goods and services. Environmental is an environment that encompasses the interaction of all living species, climate weather and natural resources that affect human survival and economic activity. Social is the characteristics of living organisms as applied to populations of humans and other animals.

#### 2.2 The importance of mining on development in small towns.

The importance of mining is seen with the effects that come from the mining activities. What is achieved by the availability of a mine at a certain area can be seen as the positive effects of having a mine in an area. There are social, economic and environmental effects of mining. The positive effects encourage development whilst the negative effects of mining hinder the development of a community. Mining offers employment to 25,000 people as of 2014( Segula 2014).

Jobs are created through hiring by mining companies which does it directly and indirectly mining activities which are the upstream and the downstream such as beneficiation and exploration respectively lead to more employment. Jobs are created in the community of mining such as in service due to increased spending by miners and their families. This relation between the number of direct jobs and those indirectly created in other parts of the economy is known as the employment multiplier.

According to Rapport mining the number of jobs captured by a region depends on the existence of potential for up and downstream activities. The downstream and upstream business will result in the employment of more people who are able to get jobs in order to provide for their families maintaining the environment around them. The qualification of the local workforce and experience should be considered so as to have an effective mine with high production. This view by scholars leaves out the gap of those uneducated miners that are providing productive labour developing mines in Africa. Experience without education has worked with the encouragement of salaries. Most miners in Ayshire mine in Banket are not educated, they come from different countries in Africa and yet they are helping in the development of Banket into a small town.

Flemming et al (2014) argues that bigger and more diverse economies are better equipped to supply inputs needed and thus capture possible jobs. He points out that the more inputs available the more people are employed at a certain level. Edjemo (2013) and Ritter (2001:224) support this argument as they see a greater number of people being employed and the unemployment rate being low. The gap that these scholars leave behind is that they do not

see that the more inputs like machinery are put on the mining sight the lesser people are employed since a machine is able to do the job of many people. Also, it is not only the bigger economies who are just managing to do that as we see also production taking place in economies like DRC where they are moving faster ahead in terms of mining and employment rate improved.

People develop when employed as they are able to send their children to school and to access health services. A prolonged and healthy life of an educated being will result in ideas that will lead to more development strategies that will make the transformation of a certain area into a town possible. Hajkowicz et al (2011) has compared the gross value of minerals production with a broad set of quality life indicators and seen the improvement of the life of the people, they are able to develop themselves in terms of having shelter, they are able attain a quality lifestyle needed and are able to secure their lives and those of their loved ones providing basic needs.

The downstream and upstream sector see the diversification of the economy through their development as they employ more and more people even after the closure of a mining industry for they are able to offer services to other open mining companies. Ritter (2001:226) argues that the economic opportunities may be viable even after local natural resources have been exhausted through selling goods and services to mines located elsewhere or to other sectors. The impact of the closure of a mine, a producer for the downstream sectors will result in the sector providing services to other mines. The services they will offer to other sectors may not be profiting which saw Tunall retrenching workers after the closure of Shabanie mine.

Mining activities bring about infrastructural development. Mining companies construct houses, clinics, hospitals, recreational areas in terms of beer halls for their workers resulting in the development of that certain area.

#### 2.2.1 Who is affected by mining?

Stakeholder theory has been developed from management and organisational literature and stakeholder management refers to how organisations deal with 'any group or individual who can affect or is affected by the achievement of the organisations objectives' (Freeman 1984:46). The theory is there to make sure that all people's needs are considered and people are looked at and the effects on those people caused by mining is investigated and resolved in a way that benefits the mining sector and the people.

People abroad are affected by mining through global warming and benefiting from the minerals at a lower price and they prepare the minerals into final products like rings and sell it back to Africa at a higher price thereby benefiting more. Dust and noise affect the mines neighbours. People who like to enjoy the natural environment and have fun during leisure are affected as the environment is degraded due to deforestation, land and air pollution.

#### 2.3 The negative effects of mining on development.

The negative effects of mining are usually the environmental effects that come up with the operations of the mine. Social effects are also seen as well as economic effects. Abrahamsson et al (2014) says the fly in fly out method causes the disruption of families, lower communication cohesion and the entrenchment of gender roles. This is associated with blood pressure and fatigue and injuries caused by accidents. Workers are not safe as they are transported from one work place to another creating room for accidents and development of that specific area where the mine is located in than the area in which they live in. Accidents results in the death of skilled man or injuries making a worker not able to carry out the required duties thus hindering development.

Looking at gender mining is a male dominated industry where men make up 90-95% of blue collar workers (Hojem 2014). Gender equality is not being practised in mining. Stereotypical gender roles known as the macho masculinity has led to a lot of dysfunctional organisations that limit learning and create opposition to the introduction of safety procedures. This has seen miners in Muriel mine in Banket in Zimbabwe going to work underground without enough safety clothing as they are seen as man who are muscular and lack the education of

protecting themselves from the cyanide that comes out from that particular mine as it is a gold mine. Strict norms about gender roles has seen people being employed due to their masculinity which is cultural than based on talent. This has seen a lot of women who are trained in the mining field not getting more attention as the mining field is deemed the domain of men rather than women. This is a gap in the mining industry which should be looked at as women are coming into mining because of talent improving the mining industry with new ideas. The use of machinery can help in accommodating women in the mining field to make work easier.

Mining sometimes disturb the indigenous populations which are the natural surroundings, livelihoods which are important for indigenous identity and cultural heritage. Soderholm and Svahn (2014) argues that there is a trend towards mining companies negotiating agreements with local communities and indigenous people, including inter alia workforce quotas and support to regional development funds. Some mining places in Zimbabwe have seen the consultation been carried out. The traditional myths have seen mines like Pan African mine closing after having cut a tree that was sad to be traditional. The movement of workers from different countries to the mining sites has resulted in the indigenous culture of the people being lost as people with different cultures are staying together losing the culture of the original people in that mining town. Cultures of the people should be observed so as not to hinder the production n the mining industry a gap left out.

According to Moffat and Zhang (2014:62-63) influx of workers can lead to housing shortages and put pressure on local welfare providers such as hospitals. Mines are not able to cater for the many workers that will be accommodated by the company when production is booming. More workers employed to help in the running and production of the company will end up causing over population leading to house shortages. This has seen some workers sharing houses or living in houses that are not sanitary enough or good for their health just for shelter. A balance between the workers being employed and housing should be maintained so as to provide shelter for all workers to cater for worker welfare as well as development.

Mining has also led to an increase in undesirable activities such as prostitution and alcohol abuse (Esteves 2008:41). Mining activity results in prostitutes moving from neighbouring areas to target the workers. This migration results in the spread of diseases as these prostitutes will sleep with anyone which is a threat to human health, less development is achieved as people die and families break up due to this immoral behaviour. Alcohol abuse will lead to less development taking place as workers will squander all their income on alcohol making them unable to invest in businesses to develop the places they live at. Awareness campaigns on the dangers of immoral activities should be highlighted by scholars so as to educate the workers to avoid being involved n these activities.

#### 2.4 Closure of Shabanie mine's negative and positive effects on development.

According to Segula of Chamber of mines Zimbabwe between 1965 and 1978 asbestos was the country's principal mineral in terms of the value of output. Shabanie being the top asbestos mine during that time contributed in the development of Zimbabwe and Zvishavane. Mutumwa Mawere the owner of Shabanie mine from 1998 after acquiring it from the Canadian company Turner and Newall who owned the mine in the 90s made great profits as he marketed the asbestos in South Africa. Mawere an entrepreneur with business in mind was able to pay the workers and encourage production with good returns from the mineral. The Canadian company had sold the mine after the mineral had restrictions on the world market as was said to cause cancer and diseases like mesothelioma. Mawere journey as Shabanie mine owner was promising as workers were taken care of with high production taking place.

Abrahamsson et al (2014) says among predominantly physical factors are decent housing and accessibility. During its operational years Shabanie mine built houses for its workers in Maglass, Kandodo and Neil high density locations for lower class workers, with low density suburbs being Noel vale, Hill view, Chinda height and Birthday for workers with better qualifications as well as managers of the mine. Any worker regardless of class was able to access accommodation in accordance with SDG9, which is about infrastructure, innovation and industries as part of sustainable development. This goal says mining requires infrastructure, including industrial infrastructure resulting in development as there is room for people resident in that area to develop more. Zvishavane transformed into a town because of Shabanie mine operations made it to develop into a town with businesses like banks and supermarkets opening. Houses were maintained and all cracks were repaired.

Infrastructure development is also seen in the construction of schools by Shabanie mine. This is not only development of infrastructure but human development and also national development. Education of workers children meant a generation which is educated which can bring transformation to the area of Zvishavane and Zimbabwe at large. Shabanie mine primary school, Gaths mine primary school, Temeraire primary school and King Mine primary school are all schools owned by Shabanie mine. The fact that these schools are not only in Zvishavane makes the mine a pioneer or carrier of education to parts of Zimbabwe. The increase in the literacy rate of the country will increase the ability of a learned generation to improve not only today but also tomorrow. Every compound had its own school which made education universal for all children article 11 of the African Charter on children's rights which states that every child has the right to education.

Hospitals were also constructed for the health services provision for a nation that believes in a healthy life. World health organisation (WHO) 2005 defines health as a state of complete physical, mental and social wellbeing of an individual and not merely the absence of disease and infirmity. A physically fit worker is able to work happy encouraging him to positively interact with his family and make plans to send his children to school or to build a house which is development. Lapalme (2003) supports a healthy worker saying that the social dimensions of sustainable development and the mining industry a background paper the author sorts issues according to 'healthy people, healthy environment', 'innovation and learning' and 'vigorous and proud communities.' Healthy workers result in effective production. Injuries faced at work were treated nearby at the Shabanie mine hospital for all workers and everyone was able to access those health services. Vigour is witnessed when a person is healthy and works with all his might to achieve a certain goal in this case to increase production. A better working rank would be attained and more salary received after hard work. Shabanie mine had a clinic for every compound and one hospital. This made it safe for the workers and their children to access health needs and services according to the African charter on children's right article 14.

Transportation was also improved by Shabanie mine in Zvishavane. There were company cars that were used, buses, excavators and lorries to ferry all the asbestos that resulted from the production at the mine. Roads lead to Gweru, Mberengwa, Masvingo and Bulawayo. The rail connects to Gweru, Bulawayo and then connects to Harare then link to Maputo Mozambique and South Africa.

Employment was created by the establishment of Shabanie mine which saw many people being employed. Many people from moved from their original birth places coming to Zvishavane in the Midlands Province in order for them to start a new life. SDG8 says employment and economic growth leads to sustainable development. A mine cannot work without employees as they are the ones who contribute to the productiveness of a company. According to Nsingo of (Bulawayo 24 news 2016) at its peak the asbestos producing giant had employed 5000 workers with over 100 000 families from the six constituencies surrounding the mine surviving from Shabanie mine. The mine employed a lot of people whilst some people not employed by the mine also benefited. Workers received their salaries on time; some had school fees for their children paid and workers hospital or clinic bills were taken care of by the mine. Protective clothing known as PPE was supplied so as to protect workers from diseases caused by asbestos. Other sectors such as the banking sector and supermarkets were constructed to cater for Shabanie mine workers providing residents of Zvishavane with jobs. The downstream sectors also benefited as they were able to employ a number of people and one of the downstream sectors was Turnall which made final processing and selling of the asbestos. Shabanie mine saw Turnall employ about 1500 people helping in decreasing the unemployment rate and people being able to afford a meal per day.

The existence of Shabanie mine made it to have sister mines which are Mashava mine, Gaths mine, King mine and Temeraire mine. Workers were also employed in these mines making Shabanie mine a big employer with over 50,000 families surviving from it.

Recreationally Shabanie mine made sure it had beer halls in all the locations and clubs including the famous golf club. This was nicely built for all class workers to enjoy after a long day at work. An upstairs and downstairs club with golf being played as well as darts with swimming pool available for a dive on a hot summer day. These facilities were built for

leisure. A fine restaurant which offered the best service was a ticket for workers to work hard in order for them to have a piece of that leisure after a good day's work. Shabanie mine sponsored a soccer team called Shabanie Mine FC which was created in 1914 and backed the team in terms of finance. Shabanie Mine FC became known as one of the best soccer teams in Zimbabwe. The soccer players were also called the Chinda boys showing a bit of class as Chinda heights it's a low veld area for the higher-class workers of Shabanie mine.

Many reasons are blamed for the closure of Shabanie mine. Shabanie had it all until Mutumwa Mawere was accused by ZANU PF of misusing funds to benefit himself which was called externalising foreign currency in violation of the country's laws which made him to run away to South Africa in fear of being arrested. The famous mine was taken by the government in 2004 and started its road to closure. The involvement of the government in the mine through ZMDC was to make sure mining would continue at Shabanie mine without corrupt owners but the plan backfired. Many reasons are said to have resulted in the closure of Shabanie mine. These are politics, misuse of funds and ill administration, corruption and smuggling, lack of markets/economic climate and lack of machinery.

Politics is argued to be one of the reasons for the closure of Shabanie mine. 'political imperatives took precedence over economic goals, most marked in the land reform programme but also in exchange rate policy the pricing policies of parastatals ... and the indigenisation and economic empowerment act...economic policies seem to have been driven by the need to secure immediate and medium term political goals, while paying scant attention to collateral social and economic consequences of such actions' (UNDP 2008:211). The land reform programme is argued to have been political by the ZANU PF in order for them to win votes after the2000 elections. Sachikonye (2012) points out that this fast track land reform of February 2000-june 2000 broke the land policy of 1998 which said five million acres of land would be redistributed but saw the hectares increasing to nine million hectares. The number of beneficiaries was increased from the 162,000 specified in the previous land resettlement programmes to 300,000 under the A1 programme (small scale farms) and 51,000 under the A2 model (predominately black run commercial farms). This land reform made investors to move away from Zimbabwe as they were scared that Zimbabwe because of making rushed decision would turn on their agreements thus no

investors for Shabanie mine. This land reform was a clear sign that any contract that the investors would sign would be rendered ineffective whenever the government of Zimbabwe would think they needed something new to embark on. Nsingo of Bulawayo 24 News argues that the power struggle between Mutumwa Mawere and the ZANU PF caused the closure of Shabanie mine. He argues that Mutumwa Mawere was a political pawn of the government and failed to repay loans given to him by the government and the government had to take away his company. This powers struggle made the ZMDC to take Shabanie mine under its management making it sink deeper and deeper in debt leading to its closure.

President R.G Mugabe once said 'where did Mawere get all the money to buy those mines. The government gave guarantees'. This was said a few years ago by the Zimbabwean President rejecting Maweres' claims that the mines belonged to him. This statement by the president proves beyond doubt that the mine was a political gain and Mawere was just a political pawn in the political game. The mining industry should benefit all Zimbabweans especially the people in Zvishavane in terms of development but involvement of politics has led to the closing of Shabanie mine.

Indigenisation policy is also a reason for the closure of this mine under politics. Black empowerment was recognised by the chamber of mines in the 1990s. This Act worked well as it gave entrepreneurs like Mutumwa Mawere control of mines after purchasing them from the whites without any struggles. The Indigenisation and Economic Act of 2007 worsened the situation of a failing Shabanie mine. This act states that 51% belong to the government whilst 49% belongs to the investor. This made it very difficult for the investors to invest in the mine of Shabanie as they will be at loss as they are the ones who would be paying workers and transporting the minerals as well as repairing and buying all the needed machinery after it is used up. Calculations would mean the government would gain more by just allowing investors to own a mine yet not developing whilst the investor will be at loss and this act scared away all potential investors.

Economic instability of 2008 due to political parties and sanctions also helped in destroying the once flamboyant Shabanie mine. The Herald 17 April 2014 states that the economic ban

on export of unprocessed chrome ore and chrome fines as part of efforts to promote value edition was seen as an unstable decision being made by a country in need of money to balance the economy. This scared away investors as it made the government unreliable in keeping promises made on a contract and after its own gaining. Saunders (2010) argues that the ensuring economic instability and growing political unpredictability deprived the potentially high growth sector the kind of investment needed to sustain and expand existing operations. All potential investors stayed away and saw the Zimbabwean government not being able to fund Shabanie mine with money as an investor. The sanctions were meant to affect only some individuals of the ZANU PF party which is the ruling party and saw the rest of Zimbabweans being affected. These sanctions made many countries in Europe to stop trading with Zimbabwe and affected the marketing of asbestos. The debt Zimbabwe has to the World Bank makes it to not be a rich playground for the investors and a negative effect on development looms. Kanyeze et al (2011) supports Zimbabwe being in debt as he says in August2010 the total external debt amounted to \$6, 5 billion which constituted about 120% of GDP. This debt has also been negative on the development of Shabanie mine as the funds that should be going to the development of the company ends up being halved so as to clear the national debt.

Zaba 2013 argues that the issue of mal administration is another negative effect to the development of the small town of Zvishavane. The administration of the mine under Mutumwa Mawere was no longer clear as he is accused of misusing funds for his personal gain. Mal administration took place under ZMDC as funds were no longer being used transparently and scams are bound to have taken place. The debt which Shabanie mine had and owed to ZESA was not paid by ZMDC but worsened to the extent that the electoral company had to turn off power resulting in the ground level of the mine being flooded and workers not being able to mine ending up being advised by this government to use shaft mining. ZMDC is full of experts and how mining experts could not be able to help the mine from its shackles but to worsen it is saddening. Weak governance, corruption and irresponsible company behaviour (Sachs and Warner 2011). These are under mal administration which hinders the progress of a company leading to its closure. A company not responsible for how it is run and changing of management leads to corruption as there are no records showing how the company is being run which was the fate of Shabanie mine in the hands of ZMDC hence its closure and no development.

Limited markets have also affected the mine. Shabanie mine was one of the best African asbestos mine that had access to many markets in United States, United Kingdom, Angola, Nigeria, Zambia, Mozambique, India, Iran, the United Arab Emirates, china and Indonesia. The availability of many markets and the success production of Shabanie mine made Zimbabwe to develop Zvishavane into a small town as its future was certain to bring about great profits. The loss of markets by Shabanie mine after it was said to cause diseases made it not marketable. The World Health Organisation (WHO) says white asbestos 'is a known cause of human cancer'. This outburst by WHO made asbestos to have low global market demand and to have low investors interested of sponsoring or owning the mine which has a limited the market. The demand and price of mined resources is generally determined on global markets which tend to be volatile and cyclical, the result is boom and bust and fragile communities (Radetzi 2008). Asbestos no longer had market and as the main resource for Shabanie mine it was looming for closure. The developing countries being made to not trade on the market because of what asbestos causes without looking at the people benefiting from using it and how to use it without it harming the health of someone is what should be first assessed before going public as every mineral has its effect on the health of people.

Lack of machinery led to Shabanie mines closure. The lack of machinery led to mine workers being told to fix the machinery as there was no money to fix it according to interviews. It is evident that not only Shabanie is facing the machinery problem. Sibanda (2014) says in the current state 65% of the plants is now beyond repair of any upgrade and would require a completely new structure looking at Zisco steel. This shows a pattern in the machinery department and with the money that comes from the produce one can wonder why the companies' never buy the required machinery to replace. Without machinery, a company will not move forward especially a mining company. Kurkkio et al (2014) one important explanation of Sweden's success in innovation is the close and long relationship and collaboration between mining companies and the equipment. Mining industries that have a relationship with their equipment take good care of their machinery making the machinery to be in a good condition for a good mineral production and effective mining producing a good outcome which benefits the workers the company as well as the development of the town. Machinery is essential for production with the right equipment more progress is bound to take

place in the development of a company (Anderson 2014). Anderson clearly supports the notion that with machinery available and in good condition production is bound to happen and developments take place. Machinery available should be taken good care of by mining companies who do not afford new equipment and scholars should be considered.

"...infrastructure in the form of road, rails, ports, electricity and communications was under developed in most countries....' Deloitte 2015 says that those ideals in the above statement are the developments that are expected for a mine to have great investors who are willing to invest to the end. This is one reason why many developing countries are not able to sell and market their end products as they do not have ports and electricity. The turning off of electricity at Shabanie mine whilst in the hands of ZMDC resulted in the machinery being ruined and closure of the mine resulting in a high unemployment rate. Many workers lost their jobs from a company which used to employ about 5 000 workers which was left with about 500workers. Retrenchment of workers hindered the development of Zvishavane as many people were no longer able to develop their lives let alone develop Zvishavane without having a source of income. The human development index says a person should be able to develop himself in order to be content encouraging the development of the place they live in or work at for it to be a conducive environment for them and their families. The little issues like electricity should be considered when budgeting for mining as t s vital a gap in literature.

Ritter 2001:230-231 points out that disturbance of local indigenous culture or local inflation are problems associated with the closure of mines. The closure of Shabanie mine saw the people in Zvishavane are people of different cultures due to the mine which used to employ a lot of people even from outside the country. this has seen people losing their cultures and identity as they would want to fit in the community in fear of being deported to their countries and has seen other people not being able to get jobs elsewhere because of their nationality and lack of education. Considering the culture of the mining area should be practised by mines and documented to avoid going against beliefs especially n Africa.

Another effect of the closure of Shabanie mine is seen on the former workers. The workers lost their jobs and have not managed to make developments in their own lives. Hajkowicz et

al (2011) have compared the gross value of minerals production with abroad set of quality of life indicators. He argues that the quality of life lived by workers is seen by the amount of production and the profit from that. This was seen to be different at Shabanie mine as workers produced asbestos and it was sold in RSA (Republic of South Africa) and the money was not accounted for and did not come back to pay workers or improve working conditions or machinery thus no quality of life was given to the workers and their lives changed drastically and led to the deaths of some workers who died due to starvation and stress since they were deprived the right to the money they had worked for. Socially the workers have also been affected in marriages being broken and education deprived from them and their children. Scholars should look at the closure of mines and how production affects the quality life indicators of the people to have solutions on measures to be taken by the workers to maintain quality life.

Economically the closure of Shabanie mine affected businesses especially banks. The banks lost a lot of money as they had given workers loans. The closure of the mine and its failure to pay its workers saw banks lose a lot of money which they had loaned the workers which saw them closing down. Microfinances also closed down as they no longer had businesses and the people started to have look for other ways to earn money so as to survive. All those people employed by these sectors lost their jobs as well as the downstream and the upstream workers lost their jobs and over 30,000 families that used to survive on Shabanie mine lost all they had and development happening in their lives stopped seen at Temeraire, Gaths mine as well as King mine. People lost their jobs as the sister company Shabanie had closed down and was no longer able to fund the other sisterly mines. Mining sector should operate together with other sectors like tourism so as to have a supporting sector when one closes.

Dropouts from schools was seen in the schools owned by Shabanie mine, the mine failed to make sure that it survived under the leadership of Arafat Gwaradzimba and could not pay workers resulting in the workers furthering their studies to drop out and their children failed to write exams in 2009. Petkova-Timmer et al (2009) reviews social impacts of mining which include increased traffic density and accidents, lower school enrolment, physical and social effects of shift work and pressure on local social fabric and identity. This shows that the enrolment of school is low when the mine is operation meaning it goes lower when mines

close down. It is general known that skilled workers are known to develop and to multiply the production as they are a skilled workforce and trained and that no longer was the case with Shabanie mine which lead to the collapse of the mine and an end to the development of a small town on the verge of growing. The schools ended up being privately owned by individuals lost the privilege to attain education resulting in some turning into prostitution for survival some becoming gold panners and lucky ones becoming airtime sellers. The literacy rate dropped in schools making midlands number in the literacy levels as many children failed to attain education in a place called by people as a town. Educational funds should be separated from the wages so as to make sure children have finances for school and children should be educated on how they can access scholarships limiting dependency on the mining sector thus t closes.

Infrastructure development stopped as the mine was no longer able to build their private houses. UN Habitat 2010 says since cities are the future habitat for the majority of the workers with the generous monies they received (salaries) during Maweres reign were building houses the new Eastlea location in Zvishavane near town and the blessed ones were able to finish and those unlucky ones had to sell some of those stands to survive on the money and limited the development of the small town. Maintenance of the company houses stopped and many workers are living in dilapidated houses according to (The Independent June 2016). As if not enough the company forced the eviction of the workers from the Maglass sections 130 former workers yet the company owes the miners many thousands back dating to 2009. The roads from town to noel vale the low veld areas is covered in potholes which can harm the good conditions of a car. Some worker bought their cars which they use as taxis to earn a living but the condition in which u see that same car in after two years is heart touching as the potholes are doing damages to these cars and hence no development as people buy cars as mode of transportation and as their roadway to making money to survive but ends up without anything.

Health wise the clinics do not really work except the one at the mine and the main hospital near town and the mine. The hospital does not work as the mine hospital as it is now being headed by (Dr) Doctor Mataka who now runs the hospital as a private practise and is expensive for a jobless person and makes people die because they cannot afford the money

needed to consult a doctor before being admitted. A dead person cannot develop anything therefore this also was an effect that avoided the possibility of development. In all levels of mining health risks occur with dust exposure (Stephen and Ahern 2001). Without mining activity, there is a small risk of people being exposed to the dust from mining the asbestos so the health sector will be ok and people can be able to manage. The transport sector has been messed up as the cars all were sold by the company and the top positioned bosses of the company used money from Shabanie mine and paid lawyers and went to court and received the cars they used to own during the mines operations as their property. Mining effects should be documented in reports that makes the people aware and find prevention which is not done by scholars.

Recreationally the golf course is no longer that much maintained and this has led to former workers no longer enjoying the places they called their own. Many beer halls are being rented and that special treatment of the workers is no longer there as individuals. The mines GO offices the headquarters is being rented by Midlands State University (MSU) and is now the main campus for arts students. This has left the former workers without places to relax at and the grounds are being used by MSU students and have left not much for the workers and their families. The swimming pools are being paid for and the Chinda boys are now are story of the past people known as being famous before as the mines soccer team. Recently the team has been said to have no money to sponsor it far as the sponsor was Shabanie mine now they are in a financial crisis and for a great team as this team a sponsor is greatly needed. Mining recreational places should be maintained by voluntary members so as to bring comfort to the former workers.

The pollution caused by the mining processes is no longer affecting the small town hence development. Bridge (2004) says effects of mining vary not just according to who stakeholders are but also according to factors such as geological conditions, mining technology, economic and political context. The emission of gases is no longer happening making the air so clean and the environment is now free from bad gases and people smelling those bad gases which affect their health. The environment is safe as no more deforestation takes place for mining activities making the place to be full of trees promoting the development of other sectors such as the game park sector and it protects the heritage of the African culture who believes in the protecting of the cultural forests and the pollution of water stopped leading to development as people are able to use the river water and not get sick since it does not have waste from the mine which is development as a healthy person can bring out ideas to change for the better a community.

The informal sector coming alive as well as women empowerment is also another effect of the closure of Shabanie mine on the development of Zvishavane. The informal sector is mostly dominated by women. The closure of the mine has made some women to start their own cross border trading businesses, selling of second hand clothes and selling fruits in town. Street vending is the most visible activity within the category of the informal sector and it is found everywhere in the world both in the developed and developing countries (Lyons and Snoxell 2015). This vending has seen people getting enough money to buy food and clothes for their families and has seen most women being able to build houses from these businesses and are able to send their children to school. This has given the women a sense of responsibility unlike the cultural way in which women are seen as baby making machines and house wives. Microfinances have opened up to give financial support to this sector by providing loans payable even with interest. Kotahwala (2012) microfinance improves status of women at individual, community, nationality, regional and global level. These microfinances have helped women in earning a living and boosting their self-esteem improving the development of Shabanie mine as a mother takes care of her family that is the same with women and the informal sector. The money they get is for the development of their society and families as their status improves so does everything around them. The opening up of businesses has made the town to develop further though at a slower rate.

The renting by MSU the mine premises has been an effect of the mines closure on development. This renting of the mine premises by the university has made rentals to be paid and they are being given to the government which is operating the mines and development is taking place as a university is building its campus which is good for the educational sector as the children are motivated to work so as to attain a degree at a place that is near home. This also has seen the opening of banks like POSB and their maintenance and the opening of Ok supermarket to cater for the needs of the increased population which includes the students Ritchie and Randall (2009) environmental footprint is the concept of a land and water area

that is needed to support indefinitely the standards of living of a given human population. That concept of urban development has seen the above opening of businesses which is development into a town with all needed infrastructure to cater for human needs. Saloons have also opened together with butcheries which has seen people being able to use the pool and develop the business sector whilst also being able to maintain the town status and improving it into a bigger town not only relying on the mining sector. The students rent the houses and the workers former are able to have money for their survival as they lease 2 or 3 rooms to students earning money to put their children back to school and are able to maintain their houses as well. Mining houses should be sold to workers paying monthly repayments so as to avoid dilapidation and homelessness which should be given notice by scholars.

The closure of the mine saw the schools being run by different individuals after purchasing them from the government. This effect has made the education level to improve as the new owners have to maintain good grades so as to have sponsors and to produce the best students for their status to be upheld. These individuals now school owners have seen Non-Governmental Organisations (NGOs) pitch in to help in paying fees for the children who are not able to and has seen the donations of bikes and all their safety wear to school children who come from faraway places. This has reduced the distance the children walk to school and help them focus in class as they are less tired and has improved the educational sector as the people are participating and the parents are happy to send their children to school as they have better grades and school dropout has also decreased. Sponsors should be sourced during the operational years of a mine so as to support the schools even after the closure of mines.

Mhangura mine and Kamativi mine faced the same problem of closure creating a high rate of unemployment and backward of development as the small towns could not be able to handle the effects of the mines closures. Looking at Kamativi mine known for the mineral tin and its closure one can tell that it faced almost the same problems faced by Shabanie mine. This mine was opened in 1936 and produced tin till it closed down in 1994. The former workers of Kamativi mine lost a lot of their benefits but came out with some packages. This left the people having a broken future and the betterment of their future was affected by a decision that was made available by the market closure though the mine was able to manage

production. According to Chronicle October 2016 at its peak Kamativi was the biggest underground tin mine n Africa with 1,350 workers employed and had infrastructure to support workers and their dependants. In 1991 workers were retrenched due to falling commodity prices and closed down in 1994. Owes ZESA \$6 600 and houses were handed over to Hwange Rural District Council. The same problem that was faced by Shabanie mine was also faced by Kamativi. ZMDC should thoroughly investigate the closures and come up with measures to avoid closure and effects like homelessness that affected former workers of Zvishavane and Kamativi.

### **CHAPTER 3: RESEARCH METHODOLOGIES.**

#### 3.0 Chapter Overview.

This chapter focuses on the research methods used to gather up information. These research methods have their advantages and disadvantages. Qualitative research design has been used using desk research, in depth interview, structured observation. Quantitative research design was used also by the researcher to understand the closure of Shabanie mine and its effects on the development using longitudinal approach and questionnaires. Longitudinal approach has also been used looking at cohort, retroactive and panel These methods have helped in understanding the research on the closure of Shabanie mine and its effect on development.

#### 3.1 Research design

Refers to the overall strategy that you choose to integrate the different components of study coherent logical way thereby ensuring you will effectively address the research, problem. It constitutes the blue print for the collection, measurement and analysis of data.

#### **3.1.1Research methodology**

Qualitative methodology best explains the way to find information on the effects of the closure of mining industries. Blaxter (2001) believes that this is an approach used by a researcher in carrying out a convincing research. Fritz (2008) says qualitative research can be done also using in-depth interview, participation observation and structured observation. Qualitative research is a broad umbrella term that covers a wide range of philosophies.it can examine people's experience in detail by using specific set of research methods... (Hennink et al 2010). Quantitative research is used to quantify attitudes, opinions, behaviours and other defined variables the methods include questionnaires, face to face interviews and longitudinal studies etc.

## **3.2 Data Mining Tools**

#### **3.2.1 Population sampling**

The researchers target are the workers of Shabanie mine who are now former as they were retrenched. These are the people who are being affected by the closure of the mine and are living with the negative effects every day. Former workers are unable to send their children to school, cannot access health services, and their participation in the research will help in the future closure of mining industries.

#### 3.2.2 In depth interviews

The research is most touching when we see that the retrenched workers did not get their salaries or compensation packages from the company and some were evicted resulting in them going to court against the government. It involved intense interviews with a small number of respondents to explore their situation following the closure of Shabanie mine which was a source of their survival. The main objective was to discover their perspectives on a particular situation, idea, and program (Boyce 2006). The former workers of Shabanie mine were granted by the court permission to own the company houses until they are fully compensated. It was an emotional interview as the harsh effects of the closure of Shabanie mine is seen in the lifestyles of these former workers and gives the researcher a clear picture of the harsh conditions of a mines closure on the people especially former workers and their families.

Former workers were able to be open up as they said mal administration was the reason that saw closure and their lives has been unbearable since the mine was taken by ZMDC as they were not able to be paid as they have slip money and no money in their pock.et. Slip money being money written on the payslip. It created a friendly environment whereby the researcher and the respondent were able to discuss every issue even political. It made the researcher to get information on the corruption that was happening on the company even during the reign of Mawere and also knowing that the ZMDC is benefiting from the rentals. It is so sad to know workers who are supposed to benefit from that rental money are not receiving anything and are getting fired for silly reasons like not coming to work when called to attend work. These workers are no longer receiving salaries and they do piece jobs and are called to attend wok maybe they are working in Mutare and when they do not come they are fired from work. After being fired the former workers of Shabanie mine cannot claim their monies and packages according to the ruling by the Zimbabwean high court that any retrenched workers must not be given a package unless on special cases. In depth made the recruiting and scheduling process easier. The researcher was able to recruit a few individuals who are now pensioners and some who are still young, the results were the same and it shows that the closure of Shabanie mine has made the workers to lose their families as some of their wives and children to resort to prostitution to survive. This has been a blow at the development of the Zvishavane town as many of those in prostitution are contracting HIV which has made the death rate to be high. It is easy to meet one person at a time for an interview as the schedule is not tight but allows the researcher to meet the respondents when they are free.

However, this research method needs the researcher to establish a friendly speaking tone and to be able to read the body language of the respondent. This made it hard for the researcher to really ask some questions as they were sensitive and respondents were afraid to answer. This research method is the fact that it is not commonly accepted. At a situation of economic and political instability people are afraid to be interviewed thinking they will be exposed and lose their jobs. Investigating the operations of the mine owners and find a solution in helping the mine by the government will help.

#### 3.2.3 Structured observation

Visiting the mine and recording observation by the researcher and watching miners still at Shabanie from afar was enlightening. This made the research more truthful and understandable as looking closely and observing makes it clear that investment is needed to help these mines from closure. The rusty machinery is evident that they need to be bought in order to help in the production as it makes it difficult and dangerous for the workers to use the old rusty machinery. This visit helped the researcher in seeing the condition of the mine currently and was able to survey the mine and see the conditions the mine workers worked under and how they got exposed to the diseases and the safety measures taken to protect the workers from getting injured and how they got covered in hospital bills and compensation. Getting access of reports which shows the amount of asbestos that is still underground was hard as the people still working at the mine were protective of the company reports. This method was important as it was not expensive and made the researcher to get exposed to the mining area and seeing how operations was handled helped in understanding what the former workers were toking about during the interview and was helpful in the planning and recording of data understanding mining fully. However, this method did not fully give the researcher information on what went wrong with Shabanie mine.

#### 3.2.4 Questionnaire

Ornstein (2013) says these are a set of questions used to gather information about a certain research on a bigger wider scale. This questionnaire is going to be used by the researcher in acquiring more information on the development brought about by Shabanie and the effects caused by its closure. The information will help mine owners in understanding what happens to the people and their areas when they are laid off work without their packages and when a mine just closes without warning leading to people into poverty.

The questionnaires are practical and easier to collect data from the former mine workers and residents of Zvishavane. Large amounts of data are obtained from a number of people at a short space of time. This gave the researcher the time to see people and know a lot of information about the effects of Shabanie mines closure as people really open up on paper on what happened to Shabanie mine and its impact on development under care and maintenance. The quantified data is useful as it can be used to compare and contrast with the data that is already available and gives a view of what was left by the other researchers on the information that was taken before by different scholars who were also looking at Shabanie mine. This was used to measure the transformation that took place from its operational period till closure observing. Technology has been useful in putting the information together and making sure that it is tangible. The results from this will help in making up of new theories of what happens at a mining company and skilled workers should be hired based on merit.

However using questionnaires makes the information questionable as they cannot be proved since some respondents would alter information to get want sympathy. Reading the change in emotions, behaviours and feelings of the respondent is hard and does not show the state of the respondent if the responses are truthful. It lacks validity as research tool. The researcher is not able to really know how valid the information being given is and it also limits the respondent in expressing themselves further focusing on the questions. This makes vital information about Shabanie mine to be lost as respondents are limited by questions to give information not asked but necessary.

#### 3.2.5 Desk research

Desk research involves the summary collation of existing data. According to business data 2016 it is the gathering and analysing information already available in print or publication on

the internet. The researcher used the desk research to get information on Shabanie mine and how it closed down. Pdfs, newspapers and mining books were used to understand the effects of the mines closure on the education of the workers and their children and drove them to doing immoral activities in order to survive. Mandava is known for the prostitution as people are looking for money. This research method was helpful in that the needed information was taken and it was not expensive as the data on Shabanie especially the reason for the closure of the mine was mentioned and the researcher was able to know the assumptions on the closure of Shabanie mine. However, this research was not able to give details of when Shabanie mine was still operational and had limited scholars on the research of Shabanie mine and it closure

## 3.2.6 Longitudinal approach

Torrey and Smith (1996) stated 'longitudinal data is important for studying individual transitions and the cumulative effects of life cycle transition on later life outcome and for studying cultural differences and changes. Longitudinal research on transitions is also important in understanding the life cycles of social conflicts the evolution off governance, and the development of economies'. The timeline when using this approach is unique and amazing as it made the researcher to look at Shabanie since it was operational, the problems that caused the mine to close and the closure of the mine as well as the effects of closure on development in Zvishavane. The way workers were treated during the reign of Mawere and when the company was taken by ZMDC in the hands of Gwaradzimba made the researcher see that it was then that the workers started receiving payslip money not cash in hand and was also the time when workers were forced to work without proper clothing exposing them to diseases like mesothelioma and cancer caused by breathing the asbestos.

It helps to see the progress and change in the people as it helped in seeing the life style now being lived by the people of Shabanie compared to how they used to spend their time after work relaxing at their clubs and beer halls now being leased. Panel involves re interviewing workers and residents of Zvishavane about Shabanie mine which is difficult, as the attitudes of people change by being asked over and over again the same issue. Workers fear that the more they get interviewed the more they are open to being politically arrested as some information has to do with the government not being transparent. Cohort was used by the researcher in observing the workers in comparing their current life with the previous one and has seen the death of some former workers due to inability to acquire health services since they are not being paid. Retroactive was used by the researcher to compare with the updated data on the internet and saw that scholars were more concerned with what caused the closure of Shabanie mine not looking at the contribution it made to the development of Zvishavane when it was still operational and the effects its closure brought on the residents and its former workers. Longitudinal approach deals with stability and change and that is what development is about so it really helped the researcher to see the change in development. During its operational years a town was established whilst mines were opened in nearby areas for example in Masvingo, however closure led to businesses closing down and the town being nicknamed a ghost town

However, this approach is expensive and needs a longer period of time to be conducted which the researcher did not have as the researcher used comparison based on the information collected long ago and interviews to determine the changes with now and before. Maintaining contact and re interviewing people especially workers was hard as people are willing to just say what happened and doing it again they felt it was going to get them fired if it was discovered.

#### 3.3 Validity

Validity is seen in the real things versus what is expected to be seen in the study and what is on ground. Using Shabanie mine as a case study, it represented all closed mines in assessing how the closure of mines affect development. In depth interview, questionnaires as well as structured observation were used in gathering information to understand the research.

#### 3.4 Collection of data procedure

Legality and professionalism were considered in the conduction of this study. Permission was asked from Shabanie mine to do a research on the mines closure and visits were made to the Ministry of Mines in Harare to help in the study. The Ministry gave a go ahead though they did not give information. This made the researcher to freely look for information on the study and observed the way Shabanie Mine used to operate before its closure and the aftermath of its closure affecting development.

#### **3.5 Ethical considerations**

The researcher is used honesty in looking for data and giving results of the research making sure that no information is fabricated. It helped the researcher in understanding that looking for the results from all the interviews and the articles was helpful in understanding the real situation these former workers are facing trying to overcome challenges.

**3.5.1 Objectivity** is another ethic that was used to avoid bias. This ethic helped the researcher in gathering information and trying by all means to analyse all the data taken so as to avoid any wrong information which leads to false results.

**3.5.2 Integrity** helped the researcher to strive for consistency and keep promises to get to the root of Shabanie mines closure. The closure of the mine has many myths but the researcher is certain mismanagement and politics were the root causes that led to the closure of the mine.

**3.5.3 Confidentiality** was used to bring out the hidden truth behind the closure of mining industries with the help of people inside who do not want to be known. Many workers feared to be fired and let go without any packages so they had to give anonymously for confidentiality purposes.

**3.5.4 Respect for intellectual property** is one ethic that helped the researcher to avoid plagiarism in giving credit to those scholars who have paved a way for the understanding of this research. Many scholars on Shabanie mine especially the newspapers were helpful in showing the researcher what Shabanie mine was all about and what happened for it to close.

**3.5.5 Sharing of ideas, data and being open to new ideas** is under the ethic of carefulness which made the researcher open to new ideas about Shabanie mine so as to understand how its closure has affected the development of Zvishavane. Development in Zvishavane has greatly been affected by the closure of Shabanie mine which has seen some banks closing down and the informal sector rising.

**3.5.6 Responsible monitoring** is an ethic that helped in the education of students and geologists in understanding what mining is all about and help them see that other area that is left unseen leading to closure of mining industries. These people need to know that the

transparency in handling of mining funds and less involvement of politics as well as working with skilled workforce is vital for the smooth running of a company and will help to avoid closure. Policies favourable to investors should be drafted whilst giving a certain percentage to the development of the area housing the mine.

# CHAPTER 4: DATA ANALYSIS, PRESENTATION AND INTERPRETATION.

# 4.0 Chapter Overview.

This chapter is all about presentation, looking closely at the information and interpretation of gathered data from the workers of Shabanie mine and the ordinary residents of Zvishavane. Primary and Secondary data was collected and these were extracted through questionnaires and in depth interviews. The information from the data mining tools was used to answer research questions. These are:

- What positive effect did Shabanie mine have on the development of Zvishavane when it was still operational?
- How did Zvishavane a small mining town manage the closure of Shabanie mine?
- Was the closure of Shabanie mine because of mal administration or it was politically motivated?
- What is the meaning of indigenisation as a policy?

# 4.1Response rate

This shows the number of people who participated against those targeted by the researcher. The high response rate shows minimum biased response and the validity of the results.

# 4.1.1 Questionnaires

Table for questionnaires

## Table 4.1: Questionnaires response rate

Population	Targeted	Responded	Not responded	Response rate
description				%
Former workers	10	9	1	90%
Ordinary	5	5	0	100%
residents				
Total	15	14	1	93.33%

Source: primary data

A total of 15 questionnaires were used to collect information from former Shabanie mine workers and residents. Nine out of ten were answered by the former workers making it 90% whilst all questionnaires were answered by the residents making it 100% response rate. This response made the information to be vital and reliable to the success of the research.

# 4.1.2 In depth interview

Table 4.2: in depth interview response rate

Population	Interviews	Interviews	Response rate
description	scheduled	conducted	
Former workers	10	10	100%
ZMDC	1	0	0
Residents	8	7	88%
Chamber of mines	1	1	100%
Total	20	18	90%

Source: primary data

Interviews scored 90% response rate. The researcher was able to conduct just 18 interviews out of the 20 scheduled. Two interviews failed because the people cancelled last minute as they feared the information they would give would put them in trouble as it would be sensitive. The 90% rate proves the information is credible.

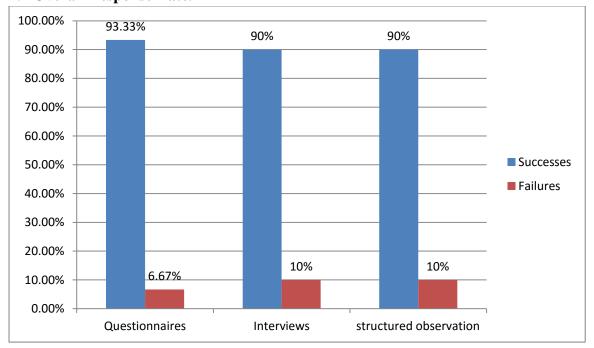
## 4.1.3 Structured observation

Table 4.3: Structured observation response rate

Week days	Time	Time scheduled	Time taken	Time spent
Monday	1100hrs	2hrs	2hrs	100%
Wednesday	1400hrs	2hrs	1hr 30mins	75%
Saturday	0900hrs	1hr	1hr	100%
Total		5hrs	4hrs 30mins	90%

The researcher selected three days for carrying out structured observation of the Shabanie mine to see how the miners are working and the production being done. Observation done during the week was to see if there was any production taking place at the mine. The observation done on the weekend was to see if operations were serious as on the weekdays and if production was happening seeing the extent to which Shabanie mine needs investment

to be transformed. The production on the mine is saddening as it there is no large amount of asbestos that is being mined since the machinery cannot manage to dig deeper and underground is flooded. Measures are being taken to remove the water from underground but a lot of machinery has been damaged. Time taken by the researcher at the mine was not the whole scheduled time as the researcher saw that the workers had not much to do and had to quickly dismiss. Different time sets of observation was done to see if there was production being done more at a different time than the other time. This helped in understanding the closure of Shabanie mine and the less production that is happening at the mine under the leadership of ZMDC.





#### Source: primary data

The graph shows the research tools used to collect data by the researcher. The three research tools are questionnaires, interviews and structured observation. Failure and successes are indicated in the graph showing how much they helped in finding useful information which is to be used in answering the research questions on the closure of Shabanie mine and its impact on the development of Zvishavane as a town representing all closed mines in Zimbabwe as a case study.

## 4.3 Findings.

### 4.3.1 Closure of mining towns.

The closure of mining industries in small towns showed the researcher that the towns are left with backward development. The effects of the closure of mining towns are both negative and positive all affecting the development of these towns. Closure of these mines have resulted in high rate of unemployment, prostitution, gold panning, marriage breakages, retrenchments and all these have resulted in poverty. Negative effects on development has resulted in poverty not being alleviated as people are living under the poverty datum line which has led to the abrupt stop of development as weak people who are starved cannot work to develop their towns. Prostitution has led to the spreading of diseases such as HIV and STIs (sexually transmitted diseases) which has led to the death of many people as they are not able to go get treated at the hospitals as the hospitals in their mining towns have closed down due to low funding or are still working but no longer afford to render services expected to be rendered by hospitals such as giving people medication as they are unable to buy the drugs needed. Retrenchments of workers have resulted in them moving out of the company's houses resulting in squatter camps. In Pan African mining all those retrenched were forced to go and live in an area that is outside the town and were told not to mingle with the other people. This has also seen people spreading disease because they stay too close to each other thus limiting development. The fewer people that would be left on the site will not think of developing a town but will be thinking of getting a meal to eat just to survive and development will be the least of their worries. The research showed that the people in the different mines that have closed down have resorted to gold panning in places with gold and has led to the killing of other illegal miners who are trapped underground by these closed mines which collapse on them. Black-market selling of minerals results in the depletion of the resource in small amounts, while serving the selfish purposes of a few individuals.

### 4.3.2 Reasons for the closure of mines.

Through interviews and research the researcher was able to discover that the closure of mining industries which affects development does not just happen but there are reasons behind the closure. These reasons have resulted in development not taking place as they are the backbones to the mine not being able to go forward operating as the means of production will be limited. The most common reasons are politics, mal administration, economic instability, lack of electricity due to misuse of funds, lack of markets, environmental climate,

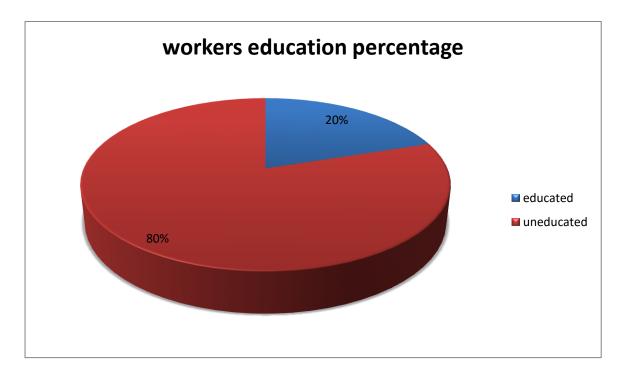
and lack of machinery and private ownership of mines. These are the reasons mainly leading to closure of mining industries in Zimbabwe. Lack of markets has hindered the development of small mining towns as the markets availability makes the production of minerals to take place and this lack of these markets made Kamativi mine to close down after it was not be sold. The reopening of the tin market has seen investors eyeing the mine to invest on it which brings about infrastructural development and employment of the people in that certain area.

Politics has been ranked as the top reason for closure of mining industries as top officials like Victor Gurupira who is a minister and owns many mines Ayshire mine in Banket being one of his. The involvement of political leaders in the ownership of mines has led to funds being diverted to political interest of one's party neglecting the development of the area in which the mine is located as these political leaders are mostly resident in Harare the capital city of Zimbabwe and have businesses outside the country and in Harare thereby not being able to develop the areas in which mines are located but in which they live leading to quick closure of mines as they do not benefit from the returns from the minerals mined from them.

#### 4.3.4 Mine Workers and Education.

Zimbabwe is seen as one of the literate countries in the world. Education has always been one of the countries priorities seeing over 80% of the people being literate. Unfortunately, in the mining industry the 20% of uneducated people are into mining as going underground needs masculinity not education. This has been discovered by the researcher as the other reason mines have failed to make it and for the high rate of unemployment. 80% of mine workers are uneducated and most can only write their names which has made the mine owners to retrench workers whenever they want as they do not even understand the contracts they sign and believe whatever they are told which is not enough for them to sue the company if they are unjustly retrenched. 20% is the educated and they are the ones that get retrenched and are given big packages as they know they are able to go to the labour court and report a company for unfair dismissal. This populace of uneducated workers has made the failure of mining companies quicker as the one who will be put in charge of underground operations will not be able to really read instructions on a machine and results in many mistakes and destruction of machinery hindering the production of that company. The educated 20% is mostly found in the offices and goes underground when there is an emergency usually and this routine will

mostly be too late as the damage will be done already and thus leading to the closure of the industry.



Pie chart presenting workers education.

The pie chart clearly shows that the workers who are educated people are few and with mining becoming one of the most competitive industry in Africa people especially workers should be able to read and write and having at least reached o level so as to have skilled workers who are able to make the production of a mining company as their first and most important goal so that they are able to make more profits thereby improving machinery and their salaries and taking Zimbabwe higher on the world market for quality production from a skilled workforce.

## 4.3.5 Positive effects of mining industries closure to development.

Mining industries closures have resulted in the development of small towns. Closure of Shabanie mine made the informal sector to become more alive as a noticed sector of development. The selling of second hand clothes and vending has made the small town to start functioning again. People realised that it is not only mining that can develop the community but also entrepreneurship. The researcher also realised that the mining properties being leased to people and institutions like MSU has resulted in the town banks reopening as people have increased in numbers and has also helped in people opening up businesses and supermarkets as they are confident that the multiplied number of people now in Zvishavane will help in the development of that town. The reopening of business has resulted in the circulation of money and in the development of the town as people are building houses to lese to students and mimosa a mining company has managed to employ some of the retrenched workers offering them a good salary that is able to help them take care of their families including sending their children to school which is sustainable development as the future generations are being educated to improve the current standards of mining and to look at the development of the nation. OK Supermarket opened up and the development of the town is moving forward. Recreational centres like Caravan park in Zvishavane has thoroughly improved and the people are now able to relax and this is one of the development that is needed for a human being to feel happy and create more ideas and meet more people who are influential and can help in joint development ideas.

## 4.3.6 How Zvishavane town is surviving after its mines closure.

People in Zvishavane have resorted to doing several jobs to survive especially those that have not been employed after losing their jobs. Types of jobs such as taxi business, renting houses, employed at Mimosa, selling airtime, working in supermarkets, some still at Shabanie mine and gold panning. The people of Zvishavane are really trying to make ends meet after the closure of Shabanie mine. Selling airtime has seen some kids of the former workers and residents going to school and affording to get an education which is vital to their development into responsible beings. The different types of jobs have helped people to have a roof over their heads and to be able to have enough food to survive. The taxi business has seen the taxi drivers being able to sustain themselves as they are able to go home with at least \$2 a day as the y charge \$2 for a single trip. This makes it easier for them to provide for their families as they are the transportation from one place to another as kombis are not common or familiar with Zvishavane town

#### **4.3.7 Indigenisation as a mining policy.**

The chamber of mines saw the indigenisation of the black Zimbabweans as a way to empower them giving them right to the businesses they were not able to access during the colonial period. This was done in the 1990s which saw a few black personnel are being able to buy mining companies from the white owners. The researcher found out that the new indigenisation and economic empowerment act made things worse on the issue of investors for most mines. The 49% and 51% acquisition in foreign owned companies made the investors to fear putting their money in this mining industry as they do not have a guarantee if they will have anything in return. Saunders defines indigenisation policy as low grade participation. This definition makes the policy less attractive to investors leaving the sector without financial backup. Investor's interest in sustainability may be driven by risk management or by the pressure from other groups. When other people or institutions see the policies in the mining sector not be fair to them they will be afraid to invest where there is no competition though they love to take risk and risks are taken where one is confident of getting something though little in return. Mines like Shabanie mine are hard to find investors for because the asbestos is said to cause diseases and has the act on top to make it worse. The researcher found out that this policy is limiting the involvement of many investors in the uplifting of the mining sector as the people who are willing to invest are foreigners who have money and these people should be attracted. Zimbabweans who are empowered by this act have mines that do no grow into large operations but end up closing them without helping the people in that certain area in terms of development as most are eager to benefit only themselves. This policy should accommodate all types of investors in a fair manner whether foreign or not. The industrial stage involving mining should be taken into account and the policies to do with mining should benefit the state, investor as well as the town or area in which the mine is located in.

## 4.3.8 Workers migration.

A lot of skilled workers fled the town of Zvishavane for greener pastures. Some of the workers which the researcher interview said they saw the way their salaries were not being paid and had to look for other jobs in other industries. Some of these skilled workers are now rendering their services to companies outside Zimbabwe. Migration has led to the disruption of families and people losing their cultural identities. These people going to other countries has left the mining sector without the leadership of educated workforce as they are being offered good jobs with great packages in countries like Botswana and Tanzania were mining is taking place at a greater scale. These people will send remittances to their families in

Zimbabwe but it will not be enough to make development to take place in their different areas as they will be making a better life for themselves in Botswana than in their native country. Offering their experience and skills to another country will help in the development of that certain country whilst Zimbabwean development is standing still thus causing the development of that particular town to remain. On the other hand, these people help by the remittances they send home and thus help in the development of their families lives and in the development of the town they live in as some of them start businesses for their families to survive on and the economy is transformed and small towns are developed in terms of infrastructure.

## 4.3.9 ZMDC.

According to the Zimbabwe Mining Development Corporation Act (2001), ZMDC is the Zimbabwe Mining Development Corporation. The Zimbabwe Mining Development Corporation Act (chapter 21:08) was amended in 2001. The corporation is led by a board which is led by a chairperson who is in charge. The corporation has the following tasks as part of their job:

- To invest on mining industries on behalf of the state
- To plan coordinate and implement mining development projects
- To engage in prospecting, exploration, mining and mineral beneficiation programme
- To encourage and undertake the formation of mining cooperatives
- To render assistance to persons engaged in or about to engage in mining
- To review annually the general economic conditions and prospects of mining industry and in particular investment schemes
- To advice Minister on all matters connected with corporate investments in the mining industry and make recommendations for the proper coordination of all coordination investments
- To carry out any other functions and duties which may be imposed upon the corporation by any enactment

The ZMDC has failed to follow its duties as it has made mining industries to be under its wing for a long time which has seen development not take part in mining towns. Reporting to the minister has prone the investments and the decisions to be biased as the minister looks at

the interests of his political party than at the market reopening. Kamativi a tin mine has been under the corporation for almost ten years and investment has to be sort later yet the market for tin opened up in early 2000. This board has to be really serious on the issues to do with mining and avoid keeping mines under their leadership for long but eager to find investors so their competence should be seen and their ability to revive the mining industry. in the case of Shabanie mine ZMDC is said to have made the debt more worse and failed to pay the workers as the new owner and this has made the future of the mining industry to be in the hands of an incompetent corporation.

### **CHAPTER 5: FINDINGS, CONCLUSIONS AND RECOMMENDATIONS.**

### 5.0 Chapter Overview.

Chapter 5 gives a summary of each chapter in the dissertation. This section will give the findings and recommendations of the study and areas of further study are also considered basing on the data presented and analysed in order to understand the effects that closure of mining industries have on development.

### 5.1 Summary.

The aim of the research is to assess the impact of mine closure on the development of small towns in Zimbabwe looking at Shabanie mine. The research brought about four chapters and these chapters were summarised below.

#### Chapter 1

The chapter has the introduction of the research and has the background study of the research which shows the background of the mining industry. Statement of the problem in this chapter showed the reasons that led to the closure of the mines hence affecting development of small towns. Study objectives were also included in this chapter which led to the research questions being answered. Significance of the study is also found in this chapter and all chapter breakdowns is done highlighting what each chapter is all about and what is to be expected in the rest of the research.

## Chapter 2

Chapter 2 is all about literature review and examining the concepts brought about by the different scholars. Closure of mines is examined and its effects on development both negative and positive. Definitions of development and its importance are brought forward as well as the worker welfare and the indigenisation policy in mining. Shabanie mine as the case study was quite helpful as it made it easier for assessment of the mining industries to be brought out through it and also this chapter helped in bringing out the development brought by the closure of mines.

The closure of mining industries made them to be put under the leadership of ZMDC and this has made the Corporation to be analysed by the researcher using literature review. It is sad to

note the limited impact this corporation has on mines and the worse situations the mines end up in under its management.

### Chapter 3.

Research methodology and design are the centre of this chapter. It gave the disadvantages and advantages of different data mining tools like interviews, population sampling, and longitudinal approach, in depth interviews, structural observation and questionnaires.

#### Chapter 4.

Data was presented in this chapter in tables, pie charts and graphs. Data presented was collected from former Shabanie workers, residents of Zvishavane, residents of Banket and chamber of mines.

#### 5.2 Conclusions.

#### 5.2.1 Development after closure

The researcher was able to find out that there is development after the closure of mining industries as the people are able to come up with ideas on ways of survival. Selling of airtime has seen children going back to school and attaining education which is individual development. The informal sector has been seen rising and sustaining the small mining towns after their closure making mining to not be the only sector that can be followed in mining towns but also to try and venture into different sectors leading to infrastructural development.

#### 5.2.2 Women empowerment has been realised.

The closure of the mining industries has led to the empowerment of women in small mining towns. Women are able to venture in cross border trading and cater for the needs of the family ceasing to only being mothers and stay at home housewives. Women are now able to head their families to the extent of providing shelter and food for the family. Motherly skills are now being used in the vending businesses as well which has seen the opening up of financial institutions mostly microfinances who are eager to help the women with finance or capital so as to improve their standards of living. This has given women a high status in the community and a sense of responsibility.

### 5.2.3 Sustainability.

People in mining towns like Shabanie mine are now able to live the kind of lives they want as they are able to sustain themselves and their families as they have ventured in different businesses like the taxi business which can pay more at the end of the month compared to salaries and the money comes in cash and have no need to access it from the banks considering the cash crisis in Zimbabwe currently which has made the banks to limit the amount of cash withdrawn a day. This has seen people buying more cars thus development.

#### 5.2.4 Market challenges.

The closure of mining industries has resulted mostly from lack of markets. Kamativi closed down because its market for tin had gone down and Shabanie mine lost its market when asbestos was said to be causing cancer and other diseases like mesothelioma. Without markets minerals, can never be sold which has also seen the diamonds not selling well as the markets are limited. Markets should be open for African countries to sell without being labelled low class goods so as for developing African countries to be able to reach the developed stage with industries that are functioning with most of the population employed.

#### 5.2.5 Migration of people to other countries to find work.

The researcher found out that many people especially skilled workers have gone outside Zimbabwe for better working conditions riding Zimbabwe of people that have great ideas that can help in the development of the country. This has seen people not qualified being put on managerial positions when they do not even deserve it leading to failed industries and lack the moving forward of the economy as these people misuse money for their personal needs not realising the development of the community at large. Migration has seen marriages breaking and Zimbabweans dying in neighbouring countries under attacks like Xenophobia attacks that took place in South Africa were all Africans not South Africans were targeted and killed as they were accused of owning south African jobs thereby limiting chances of the real South Africans from owning jobs. These attacks have left children as orphans now street kids in the streets of big cities like Harare and families poverty stricken with no hope for the future.

Migration has also resulted in the spread of different diseases like HIV as it was a western disease and those that went to look for jobs in western countries brought it here. The promiscuity brought by this migration has made development inevitable as the people are too sick to build companies that can sustain the future generation but all they can do is run businesses to the ground.

### 5.2.6 Leasing of mining facilities.

Leasing of mining facilities has resulted in former mine workers not having places to relax at and has killed their hope for the reopening of the mine. The former workers especially of Shabanie mine has lost hope in the mien which has seen a large number of miners leaving the mining area for their original birth places as they have nothing left to offer to Zvishavane. This has seen some people leaving with all their achievements which had left the town as a ghost town with stopped development as people were not able to develop the small town whilst they moved to other places.

On the other hand, the leasing of mine properties like the GO which was leased to MSU has made the place to develop. An educational institution has made business people to come from their different areas and invest in Zvishavane as they have seen it as an opportunity for them to develop and has forced them to build houses in the town to access the development and monitor their business. The leasing of Mashava mine properties to GZ (Great Zimbabwe University) has made Masvingo also a small mining town to see development of businesses and houses as well as individual development as people are able to buy and sell different goods thus making a living.

## 5.2.7 ZMDC failing to revive mining industries under its care.

The ZMDC seems to have forgotten what it is all about and has lost its focus. Many mining industries have been under the care and maintenance of this corporation and nothing has

emerged from these industries. ZMDC should avoid the same reasons to led to closure of mines but should address the situations and make breakthrough n reviving the mining sector.

## 5.3 Recommendations.

## 5.3.1 Mine should have closure plans.

Mines should have closure plans and prepare for their closure in the future as this will be good for the mine to be prepared for any expectation in their world. Closure plans will make the mine to be sure and confident of the future ahead and how it could avoid closure. This keeps the company in check with what they are up against and time to time monitoring of the mine resources and the machinery will be carried out thus will not have a surprise attack but miners or workers will have their packages made in advance so as to sustain them after the mine closure and this will be good for the development of any mining town as the people have enough funds to sustain and develop infrastructure whilst securing another job or venturing into other sectors without fear of poverty.

### 5.3.2 Policies to do with mining should be amended.

Policies like the indigenisation policy should be amended in such a way that it pleases both the investors and the community. The community should be able to receive a certain percentage from the investment as it is their area that has the mine and they are the ones with the indigenous knowledge off that certain area. This will give more room investors to come and invest as they are confident that they will have profits in return as they will be confident in the percentage they are doing. They should be given room to expand and develop the mining towns they will be operating in as a way to give back to the community and this can be done with them building houses for the workers which they will permanently own as theirs.

## 5.3.3 Educating mine workers through short courses.

All mine workers should at least be able to write and read so as to be better equipped in the management of machinery underground. Yes, it is said that experience is the best teacher but also short programmes on what mining is all about and short courses should be conducted free of charge so that mine workers can never be exploited by greedy mine owners but can be able to know their rights thus promoting transparency and this will boost the production as

everyone will work towards a goal they all understand which is development of the mine as well as their lives.

### 5.3.4 Market research.

ZMDC as the corporation that deals with the mining industry should do a thorough research on the market and make sure they find a market for all the mines under their care. The availability of markets will boost the mining sector as everything will be sponsored by investors eager to get some profits from these mines. Africa should be given a fair chance just like any western countries to market their goods without myths surrounding their resources as all resources have effects on the human nature but are still being sold. A better understanding of the market will help the mines that will need to make their resources to know which countries to approach and what will be offered and if negotiations are necessary. Such vital information of current markets should be in the hands of ZMDC so as to make the access of these mines to the world markets easier with the backing of the state.

## 5.3.5 Politics should divorce from mining activities and transparency maintained.

The mining department should stand on its own not supporting any political party. The minister of mines who is in charge of this sector should not link politics and the mining sector. Politics stands on its own and its involvement will lead to corruption and the smuggling of resources in a bid for the royal elite to only benefit at the expense of the populace. Transparency should be maintained in the mining sector with the Zimbabwean population knowing the contribution being brought to the country and the town with the mine and the development it has done. If infrastructural development is being sponsored by the industry it should be broadcasted and the people should benefit with them workers knowing what their production is doing and getting their salaries fairly with bonuses to encourage them to work harder when necessary. Recently Zimbabwe lost 15 billion from sold diamonds which is unaccounted for. This hinders the development of the industry as mismanagement of a huge amount of money like that should be used in the buying of more equipment needing less investors but such mismanagement is destroying the mining sector. Transparency of funds should be upheld and introduced.

#### 5.3.6 Worker welfare should be practised.

Workers are the machines behind the production in the African economy. Workers should be treated with so much love and response. A sense of them owning the mines as part of their inheritance should be established so as to make them take more care of their mines as they will know their future and that of their families depends on the survival of the mine. Their salaries should be given to them when necessary and in full. Shabanie mine workers ended up working without their PPE. Protective clothing should be first priority by every mine worker making sure the workers are safe and healthy. Avoiding diseases and infections will make workers work for a longer time whilst gaining more experience which allows them to maintain the mine. Mine workers should also be given a platform to say their ideas out in ways they think the mine will make more progress and recreational facilities should be created for them and their families to enjoy as benefits of the work.

Mine workers' children school fees should be paid by the mine as its responsibility thus making the children to acquire education giving a sense of security to the lives of the future generation as well as a sense of pride to the parents in affording their children what most of these workers lack. Retrenchment of workers should be done with those being retrenched getting suiting packages which are able to sustain them whilst they are looking for other job opportunities. Pensioners should be acknowledged and receive their pension every month without deductions as an honour of serving in the company loyally and their children should be assisted with fees once in a while to make sure the children acquire education.

#### 5.3.7 Monitoring and good maintenance of machinery should be done regularly.

Machinery is essential for the development of mining industries. Mining equipment like excavators are necessary for deeper mining and these should be at the site and should be serviced and made sure they are safe and that all is working well. A relationship that is good between a person and the equipment will result in more production as the lubrication of machinery will see the machinery lasting longer. Electricity bills should always be paid so as to avoid the switching off of electricity which results in the flooding of the underground section and can destroy machinery worth thousands of dollars stopping production.

#### 5.3.8 Affordable monitoring and project assessment specialists.

Specialists who are there to monitor the development of mining projects should be affordable so as to allow many mining industries to access them and make sure they are monitored and are in the right track. Monitoring by these specialists will make it more effective as these people are able to see if there is corruption that is taking place through auditing and this makes the finances of the company to be clear of corruption and transparency will be maintained. Every mining industry being able to afford these specialists will help in the smooth running of this mining sector and will increase in production as there will not be misuse of funds in fear of it being discovered through monitoring and regular audits.

## 5.3.9 Gender equality

Gender equality is one of the most important factors that should be considered in the mining industry. This industry is deemed the masculinity area were the man are the ones who are at work especially underground and women are not allowed. The industry should look at the intelligence of the person before turning them away. Some women might have ideas that can be able to improve the industry so they should be given a chance to prove themselves. This can be a breakthrough in the development of the mining industry.

#### 5.4 Area of further study.

This research was looking at the closure of mining industries and how this has affected the development of small towns in Zimbabwe. Shabanie mine in Zvishavane was used as a case study. The researcher saw that it is important for other researchers and scholars to further study the following question:

- Why mining industries are failing to develop themselves
- Different policies on mining in Zimbabwe and their effects on getting investment
- Why markets for selling African resources are limited and associated with myths

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## **APPENDICES.**

## Appendix 1: Questionnaire for the residents of Zvishavane town.

My name is Rumbidzai Precious Zinyama. I am fourth-year student at Midlands State University. I am carrying out a research on the closure of Shabanie mine and how it has affected the development of Zvishavane town. This research is being done as a partial fulfilment of the requirements of Honours Degree in Development Studies. The information collected will be used specifically for academic purposes.

What benefits did you get during the period in which the mine was 1. functional?..... ..... 2. What do think caused the closure of Shabanie you mine?..... ..... \_\_\_\_\_ 3. How has the closure of Shabanie mine affected the development of the town?..... ..... ..... 4. How managing without the of the are you support mine?....

.....

5.	What do you recommend should be dor	ne to improve the way people	e are surviving and
reopen	•	of	the
mine?.			

Appendix 1:

## Appendix 2: Questionnaire for the former workers of Shabanie mine.

My name is Rumbidzai Precious Zinyama. I am a fourth-year student at Midlands State University. I am carrying out a research on the closure of Shabanie mine and how its closure has affected the development of the small town of Zvishavane. The research serves as a partial fulfilment of the requirements of Honours Degree in Development Studies. The information collected will be used specifically for academic purposes.

1. As a former worker of Shabanie mine comment on the contribution brought by Shabanie mine on the development of Zvishavane town during its operational years?

2. How were the working conditions at Shabanie mine?....

3. What benefits did you receive as workers during the reign of Mutumwa Mawere?

4. Where there any warning signs that showed you that the company was about to close?.....

.....

5. What do you think caused the closure of the mine?.....

6. Is ZMDC doing a good job in the maintenance of the mine at present?.....

7. How has the closure of the mine affected you and the community negatively and positively?

8. Now that the mining sector has closed down do you think development is still taking place? Why do you say so?....

9. What recommendations do you have for the reopening of Shabanie mine?

## 10. What do you think should be done to avoid closure of mining industries in the future?

# **Appendix 3: Interviews for the former workers of Shabanie mine.**

My name is Rumbidzai Precious Zinyama. I am a fourth-year student at Midlands State University. I am carrying out a research on the closure of Shabanie mine and how it has affected the development of the small town of Zvishavane. The research serves as a partial fulfilment of the requirements of Honours Degree in Development Studies. The information collected will be used specifically for academic purposes.

# **Interview Questions.**

- 1. What were the benefits you got during the operational years of Shabanie mine?
- 2. How were you workers treated in terms of getting your salaries and the working conditions during Maweres reign?
- 3. What do you think caused the closure of Shabanie mine?
- 4. How did the closure of Shabanie mine affect your personal development?
- 5. What are the effects of the mines closure to Zvishavane as your community?
- 6. Do you think it was a wise decision for ZMDC to be in charge of Shabanie mine?
- 7. What do you think must be done to avoid future closure of mining companies?
- 8. What do you think about the Indigenisation policy?

## Appendix 4: Interviews for Zvishavane Residents.

My name is Rumbidzai Precious Zinyama. I am a fourth-year student at Midlands State University. I am carrying out a research on the closure of Shabanie mine and how it has affected the development of the small town of Zvishavane. The research serves as a partial fulfilment of the requirements of Honours Degree in Development Studies. The information collected will be used specifically for academic purposes.

## Interview questions.

- 1. How did you benefit from the operations of Shabanie mine?
- 2. What do you think led to the closure of the mine?
- 3. What changed as a result of the closing of the mine?
- 4. Who do you think is to blame for the closure of the mine?
- 5. How are you surviving without the mine?
- 6. Do you think Shabanie mine has hope of starting operations?
- 7. What recommendations can you give to the government about mining companies and their reopening?

# **Appendix 5: Interview for Chamber of Mines.**

My name is Rumbidzai Precious Zinyama. I am a fourth-year student at Midlands State University. I am carrying out a research on the closure of Shabanie mine and how it has affected the development of the small town of Zvishavane. The research serves as a partial fulfilment of the requirements of Honours Degree in Development Studies. The information collected will be used specifically for academic purposes.

# Interview Questions.

- 1. What special role does ZMDC play in managing failing mines?
- 2. What is happening to mines in Zimbabwe causing many mines to close?
- 3. The ministry of mines as a department what measures is it taking to avoid and prevent these closures.
- 4. What went wrong with Shabanie mine?
- 5. Is there any hope of its revival?
- 6. As a specialist in mines what do you recommend should be done to help other operational mines to avoid closure?
- 7. Do you think politics and mining should work hand in hand?