AN INVESTIGATION INTO THE RELEVANCE OF SMALL-SCALE GOLD BUYERS TO ARTISAN GOLD MINERS IN ZIMBABWE: A CASE STUDY OF ARTISANAL GOLD MINERS IN KWEKWE

BY

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JULY 2012

SUPERVISOR: DR N. KASEKE
Declaration

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

Charles Muzika .................................................. ........................................

(Student) Signature Date

Dr. N. Kaseke .................................................. ........................................

(Dissertation Supervisor) Signed and Accepted Date
Dedication

To my wife, Perseverance Muzika and the entire Muzika family without whom this dissertation would not have come to fruition.
Acknowledgements

Firstly, I would like to acknowledge the effort that was expended by my supervisor, Dr N.Kaseke in guiding me throughout the duration of the study.

Secondly, my sincere gratitude goes to my wife, family members and friends for supporting me through the study period.

Lastly, to the Almighty I give glory for the blessings.
Abstract

The research investigates the relevance of small-scale gold buyers in the small-scale gold mining sector. There are a lot of small-scale gold buyers operating around Zimbabwe in general and in the gold mining area of Kwekwe. Mining activities of small-scale gold miners has become a key contributor to the overall gold production in the country despite their minimal technological advancement and little access to markets. The objectives of the research were; to assess the functions, benefits and contributions of gold buyers in the operations of small-scale gold miners in Zimbabwe.

Literature review on the role of intermediaries and their benefits in the small-scale gold mining sector were also reviewed. The outcome from literature shows that intermediaries play some critical functions. Strategies the small-scale gold buyers use in their gold buying operations such as cost-average techniques and forward buying were also outlined.

The study leaned towards the phenomenology philosophy because it provides qualitative data with depth in meaning. The case study was adopted as a research strategy. Data from the population comprising both the small-scale gold miners and small-scale gold buyers was collected using the interview research guide from a sample size of 120 participants with stratified sampling technique being employed.

The research findings revealed that the small-scale gold buyers are playing some critical functions in the operations of small-scale gold miners. Some of the major functions are; facilitation of gold marketing, provisions of capital and technological assistance. The research results also show that access to equipment and pricing discovery are the major benefits derived by the small-scale gold miners in Kwekwe area. The study concludes that the functions of small-scale gold buying, resource provision and financier are dominant from the small-scale gold buyers. The research also concludes that the small-scale gold miners operations improved as a result of assistance from the small-scale gold buyers. The research recommends that the small-scale gold miners be availed with loans and equipment while there should be set a small-scale gold marketing board by the government to regulate the buying and selling of small-scale gold miners produce. An area of further research is to investigate the role of funding and the economic effects on productivity in the operations of small-scale gold mining sector in Zimbabwe.
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<th>Description</th>
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<tr>
<td>ASMs</td>
<td>Artisanal and Small Scale Miners</td>
</tr>
<tr>
<td>AfDB</td>
<td>African Development Bank</td>
</tr>
<tr>
<td>AMSZ</td>
<td>Association of Mine Surveyors of Zimbabwe</td>
</tr>
<tr>
<td>BOP</td>
<td>Balance of Payment</td>
</tr>
<tr>
<td>EMA</td>
<td>Environmental Management Agency</td>
</tr>
<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
</tr>
<tr>
<td>EPO</td>
<td>Exclusive Prospecting Order</td>
</tr>
<tr>
<td>FPR</td>
<td>Fidelity Printers and Refiners</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GPA</td>
<td>Global Political Agreement</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>IMC</td>
<td>Institute of Management Consultancy</td>
</tr>
<tr>
<td>LBMA</td>
<td>London Bullion Market</td>
</tr>
<tr>
<td>MLF</td>
<td>Mining Loan Fund</td>
</tr>
<tr>
<td>MAB</td>
<td>Mining Affairs Board</td>
</tr>
<tr>
<td>MRO</td>
<td>Metals Refiner Operations</td>
</tr>
<tr>
<td>MMCZ</td>
<td>Minerals Marketing Corporation of Zimbabwe</td>
</tr>
<tr>
<td>NGO</td>
<td>Non Governmental Organisations</td>
</tr>
<tr>
<td>RBZ</td>
<td>Reserve Bank of Zimbabwe</td>
</tr>
<tr>
<td>US$</td>
<td>United States Dollar</td>
</tr>
<tr>
<td>PAYE</td>
<td>Pay As You Earn</td>
</tr>
<tr>
<td>PEST</td>
<td>Political, Economic, Social and Technological Factors</td>
</tr>
<tr>
<td>PMMC</td>
<td>Precious Mineral Marketing Corporation</td>
</tr>
<tr>
<td>ZMDC</td>
<td>Zimbabwe Mining Development Corporation</td>
</tr>
<tr>
<td>ZIDERA</td>
<td>Zimbabwe Development and Economic Recovery Act</td>
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CHAPTER ONE
INTRODUCTION AND BACKGROUND

1.0 INTRODUCTION

This dissertation investigates the relevance of small-scale gold buyers to the artisanal small-scale gold miners in Zimbabwe. There are a lot of sprouting buyers of gold who move around Zimbabwe buying gold from artisan small-scale miners. In the study area, Kwekwe there are well established and well known gold buyers to the small-scale miners. Therefore, it is important to assess what role these intermediaries are playing in the operations of the artisan small-scale miners.

The Chapter begins by outlining the general background of the mining sector in Zimbabwe, the contribution of the small-scale mining sub-sector to the national economy, the statement of the problem as well as the research objectives and justification. The overall structure of the dissertation is also outlined and the Chapter concludes with a Chapter summary.

1.1 BACKGROUND OF THE MINING SECTOR IN ZIMBABWE

1.1.1 An Overview of Zimbabwe’s Mineral Resources

Zimbabwe stand as one of the world’s most endowed countries when it comes to the abundance of God-given natural resources. The country is home to the world’s second-biggest platinum reserves and to two of Africa’s largest underground gold mines (Chamber of Mines, 2012). However, minerals such as, diamonds, platinum, iron ore and coal bed methane are amongst the largest well known reserves in the world but very little value is being realised from them (Monetary Policy Statement, 2009). For instance, there are no investment takers as yet in the extraction of coal bed methane whilst diamond mining is being hampered by political interferences both from a local and international perspective (ibid). The following mineral resources statistics from the Reserve
Bank of Zimbabwe (2009) give a summary of the estimated resources the country has as well as the current annual extraction rate from the ground through various mining activities. Table 1.1 shows that iron ore have the highest record of 30 billion tonnes and nickel have the least amounting to 4.5 million tonnes in estimated reserves.

Table 1.1: Zimbabwe’s Mineral Resources

<table>
<thead>
<tr>
<th>Mineral</th>
<th>Estimated Resource</th>
<th>Current Annual Extraction Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>13 million tonnes</td>
<td>20 tonnes</td>
</tr>
<tr>
<td>Platinum</td>
<td>2.8 billion</td>
<td>2.4 million tonnes</td>
</tr>
<tr>
<td>Chromite</td>
<td>930 million tonnes</td>
<td>700 000 tonnes</td>
</tr>
<tr>
<td>Nickel</td>
<td>4.5 million tonnes</td>
<td>9 000 tonnes</td>
</tr>
<tr>
<td>Coal</td>
<td>26 million tonnes</td>
<td>4.8 million tonnes</td>
</tr>
<tr>
<td>Diamonds</td>
<td>16.5 million tonnes</td>
<td>Infancy</td>
</tr>
<tr>
<td>Iron Ore</td>
<td>30 billion tonnes</td>
<td>300 000 tonnes</td>
</tr>
<tr>
<td>Copper</td>
<td>5.2 million tonnes</td>
<td>None</td>
</tr>
<tr>
<td>Coal Bed Methane</td>
<td>Largest known reserves in Southern Africa</td>
<td>None</td>
</tr>
</tbody>
</table>

Source: Reserve Bank of Zimbabwe (2009).

Zimbabwe is steadily recovering from the lost decade, and mining is important for the country’s recovery since the nation is sufficient in most minerals (Chamber of Mines 71st Annual General Meeting Magazine, 2010). According to the International Monetary Fund (2011), the government can only claim part of the mineral wealth through taxes and royalties. In this case, royalties are a form of resource rent levied on mining operations on the basis of a “rate per unit of mass” to compensate the state which owns mineral resources on behalf of the nation, for the exploitation of a finite resource (Chamber of Mines Journal, 2012). The resource rent on gold is now 7 percent of gross revenue from 4.5 percent
while that for platinum is 10% up from 5 percent (National Budget Statement, November, 2011).

The general increase in international metal prices, particularly for gold and platinum prompted the Ministry of Finance to make some fiscal adjustment to “maximize the contribution of mineral resources to the fiscus” (Biti, 2012). The prices of gold and platinum have reached new highs in 2012 of US$1 950 per ounce and US$1 900 respectively. However, simulations by market watchers project the price of gold to hit US$2 500 per ounce in 2013 because of Europe’s debt woes (Chamber of Mines Journal, 2012). According to Zimbabwe Independent’s business digest (27 April 2012), the mining sector contributed US$311 million in total taxes to the fiscus translating to 12% of government revenue collected in 2011.

1.1.2 Mineral Legislation Framework

In Zimbabwe, the mineral industry is regulated by the Mines and Minerals Act (Chapter 21:05) which has been in force since 1965. According to this Act, all the minerals in the country are under the custody of the President and a prospective miner is required by the law to first acquire rights of mining any mineral deposits through an application to the mining commissioner. The Mines and Minerals Act is the principal legislation that govern the mineral sector, however, there are some legal instruments that are also of great importance to the miners’ according to the Chamber of Mines (2012) which are:

(a) Gold Trade Act (Chapter 21:03);
(b) Precious Stones Trade Act (Chapter 20:27);
(c) Companies Act (Chapter 24:03);
(d) Mining (management and safety) regulations SI 109 of 1990;
(e) Minerals Marketing Corporation of Zimbabwe (Chapter 21:04) and
(f) Indigenisation and Empowerment Act (Chapter 14:33).
All of the above legal instruments lead to the overall mining policy in the country which is to sustain the development of the nation’s mineral resources as well as create employment opportunities. The mining sector is open to investment from both local and foreign investors. However, prioritisation to exploit the mineral deposits is vested in the minister of Mines and Minerals Development as stated by the Mines and Minerals Act (Chapter 21:05).

The Ministry of Environment take care of all issues to do with the environment such as land degradation, pollution and health amongst others which are given due attention at both project inception and development stages. In terms of the Environment Management Act (Chapter 20:27), mines are required to construct landfills as well as fencing off sites to prevent animals and human beings from danger. Sustainable waste management strategies should also be adopted such as compacting, backfilling and re-using or recycling waste. An environmental impact assessment (EIA) form is issued out to miners by the Environmental Management Agency (EMA) to certify legal compliance (Herald, 27 January 2012).

A prospecting miner is required to obtain a prospecting licence which allows the holder of such licence an entitlement to register as well as peg their claims. The claim becomes a registered mining site where the exploitation and extraction of mineral deposits take place. The duration for a valid prospecting licence is two years while five years is the duration for an approved valid prospector’s licence that can also be renewed after every five-year intervals.

The Exclusive Prospecting Order (EPO) gives a prospecting miner some exclusive rights to prospect in any defined area in Zimbabwe for specified minerals. The Mining Affairs Board (MAB) confers the exclusive prospecting order to an investor through an application and a deposit payment. The area size required for an EPO is 2 600 ha for precious stones other than diamonds and 65 000 ha for any other mineral (Chamber of Mines Journal, 2010).
The maximum period in Zimbabwe for operating an EPO is six years; three years being the initial period and the other three is the maximum possible extension period. Licence holders of an EPO are allowed by the law to submit work reports to be carried out in the next six to twelve months as well as reports of completed work in the past six to twelve months.

The permission granted to a prospecting miner is called a mining claim. The mining claims are categorically divided into two (Chamber of Mines Journal, 2010) which are; Base mineral claims for minerals such as asbestos, chrome and iron as well as Precious mineral claims for minerals of a significant value such as gold, diamond, platinum and silver.

Mineral claims are usually small in size of 25 ha for ordinary while a special claim covers an area between 26ha to 150 ha (Zimbabwe Mining Development Corporation, 2010). However, mining claims are normally grouped to form block claims because of their size. When a block claim is formed, it can be transformed into a mining lease for the sole purpose of simplifying administrative duties.

The Ministry of Mines and Mining Development is empowered to inspect mining claims annually with fees also being paid by the miners. The holder of a claim enjoys rights to prospect for other minerals as well as mine the resource in which the claim was registered for. The commissioner of mines expect the claim holder to meet minimum set standards so that the miners’ commit themselves to development work. Since mining plays such a critical role in the national economy, the government comes in to ensure that the country’s mineral policy regarding development and employment creation is attained.

1.1.3 The Government’s role in mining

The government is not involved in the day to day management of mining companies’ projects in the private sector, be they of foreign or local origin. However, the government is involved in mining through its parastatal companies namely; ZMDC (Zimbabwe Mining Development Corporation) and MMCZ
(Mineral's Marketing Corporation of Zimbabwe). The Zimbabwe Mining Development Corporation was formed by the government in 1982 as a way of participating in the mining sector as well as saving companies that were facing closure. ZMDC is also very active when it comes to exploration of minerals, mining and provision of assistance to the small-scale miners.

In 1992, the government formed the MMCZ for the sole purpose of marketing all the country's metals and mineral products with the exception of gold and silver which are marketed through Fidelity Printers and Refinery, an arm of the Reserve Bank of Zimbabwe. The parastatal generates its operational revenue through a commission charge of 0.975% on all mineral sales from its clients (Minerals Marketing Corporation of Zimbabwe, 2010).

When a prospecting investor satisfies the Ministry of Mines through the mining commissioner and the Ministry of Environment through the Environmental Management Agency (EMA) and all the legal obligations concerning investment in the country, mining activities can be commenced thereby contributing to the general economy.

1.2 The Mining Sector and its contribution to the national economy

1.2.1 Brief History of Gold Mining in Zimbabwe

Zimbabwe is known for being a gold producer dating back as far as 1906 during the colonial period by the British. Since the early mining settlements, mining has evolved around the growth of towns and cities (Chamber of Mines, 2010). Kwekwe and Gweru are some of the cities that have grown out of mining while, Bindura and Shamva are some of the towns that have emerged out of mining activities with gold being the dominating mineral.

The gold mining sector reached its peak of 1000 gold mining companies in 1938 with output worth 250 million British pounds being produced by the Rhodesian government as highlighted in the Seventh Commonwealth Mining and Metallurgical Congress report (1961). According to the Chamber of Mines
Journal (2010), gold production in post-independent Zimbabwe reached an all time record of 27 tonnes in 1999 to an all time low of 3.6 tonnes in 2008 due to economic induced operational challenges that resulted in many closures by the mining companies.

According to the Chamber of Mines (2012), the foundations of economic recovery are anchored on human capital and natural resources as well as different funding strategies due to the risky nature of the mining industry. However, the mining value chain requires each player to add value at each stage of the mining development from exploration to extraction and the final sale of the mineral. The mining industry still faces significant challenges with both political and economic stability being fundamental to encourage inward investment to increase productivity especially for gold which suffered a significant decline over the past decade. The following table outlines yearly gold production output in the country from 1999 to 2011 in tonnes.

Table 1.2: Gold Production in Tonnes (1999 – 2011)

<table>
<thead>
<tr>
<th>Production Year</th>
<th>Production Output (Tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>27.1</td>
</tr>
<tr>
<td>2000</td>
<td>22.0</td>
</tr>
<tr>
<td>2001</td>
<td>18.0</td>
</tr>
<tr>
<td>2002</td>
<td>15.5</td>
</tr>
<tr>
<td>2003</td>
<td>12.6</td>
</tr>
<tr>
<td>2004</td>
<td>21.3</td>
</tr>
<tr>
<td>2005</td>
<td>14.0</td>
</tr>
<tr>
<td>2006</td>
<td>11.4</td>
</tr>
<tr>
<td>2007</td>
<td>7.0</td>
</tr>
<tr>
<td>2008</td>
<td>3.6</td>
</tr>
<tr>
<td>2009</td>
<td>4.9</td>
</tr>
<tr>
<td>2010</td>
<td>6.5</td>
</tr>
<tr>
<td>2011</td>
<td>9.3</td>
</tr>
</tbody>
</table>

Source: The Chamber of Mines (2012)

The statistics in the above table indicates that gold output slightly recovered from an all time low of 3.6 tonnes in 2008 to 4.9 tonnes in 2009 after the adoption of the multiple-currency regime and the formation of the inclusive government under
the Global Political Agreement (GPA). The trend also points that the current situation is enabling the mining companies to increase their level of production, though on a marginal scale as reflected by an increase in tonnage of output from 6.5 tonnes in 2010 to 9.3 tonnes in 2011 respectively. However, the record breaking output of 27 tonnes in 1999 is still far from being achieved given the current operating conditions.

1.2.2 The Mining Sectors’ Contribution to the Economy

The mining sector is very important in the Zimbabwean economy with statistics currently indicating that it has overtaken agriculture after the land reform programme. According to the Chamber of Mines Report (2010), the mining sector currently contributes more than 50 % in export earnings and provides over 45 000 jobs in primary activities as well as over 15 000 downstream jobs in related industries such as mining suppliers subsector.

Mining also contributes directly to the national fiscus through PAYE (Pay as You Earn) in respect of workers’ remuneration with preliminary estimates in 2011 showing that over US$25 million was contributed by workers as pay as you earn. In addition, the Reserve Bank of Zimbabwe (2011) export statistics also indicate that mining was leading in terms of revenue generation in 2010 and 2011 as highlighted in table 1.3 below. This indicates that the mining sector continues to play a significant role in terms of foreign exchange earnings in the national economy.

Table 1.3: Mining Exports US$(m)

<table>
<thead>
<tr>
<th>Sector</th>
<th>2010</th>
<th>Percentage of total</th>
<th>2011</th>
<th>Percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining</td>
<td>1.2000</td>
<td>60 %</td>
<td>2.2000</td>
<td>50 %</td>
</tr>
</tbody>
</table>

Source: Reserve Bank of Zimbabwe (2011)

The data in table 1.3 shows that the mining sector accounted for about 60% in 2010 whilst regressed 10 percentage points to 50 % in the two comparative

The research conducted by the Chamber of Mines (2011) also shows that the sector contributed 47% to the Gross Domestic Product (GDP) in 2010, reflecting both the growth of the sector and the structural changes that have occurred over the past ten years. Mining contributed approximately 25.8% to the country’s GDP in 2011 and is projected to grow by a further positive 15.9% in 2012. Table 1.4 below shows the contribution of mining to the country’s Gross Domestic Product.

Table 1.4: Mining contribution to the GDP

<table>
<thead>
<tr>
<th>Sector</th>
<th>2010 Share of GDP (%)</th>
<th>2011 Share of GDP (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total National GDP (USD)</td>
<td>4 billion</td>
<td>47.0%</td>
</tr>
</tbody>
</table>

Source: Chamber of Mines (2011).

According to the data in table 1.4, mining’s share of exports to GDP averaged 29.4% for 2010 and 2011 respectively. However, in 2010, the mining sector generated export receipts of US $1.2 billion. The African Development Bank’s January economic review (AfDB, January 2012), estimated the mining sector to have grown by 25.8% with mining exports growing by 38.7% contributing half of the national exports in 2011.

In 2012, the mining sector is estimated to increase mineral export earnings to US$2.6 billion from US$2 billion realised in 2011 (Biti, 2012). In addition, the Zimbabwean mining sector is projected to grow by 15.9% in 2012 underpinning the overall economic growth in GDP terms of 9.4% up from 9.3% in 2011 and 8.1% in 2010 respectively (AfDB, 2012).
With the government’s economic empowerment drive, the participation of the small-scale miners has become of paramount importance to the economic wellbeing of the nation. Like being the case with other economic sectors of the economy, the mining industry is not an exception when it comes to small player’s participation with the IMF (2009) estimating that 25% of Zimbabwe’s total gold output comes from the small players; hence this study focused on the relevance of intermediary gold buyers in the small-scale mining sector for the overall economic well being of the nation.

1.2.3 The Small- Scale Miners’ National Economic Importance

The government put in place mechanisms that enhance growth in the small-scale mining sector after recognizing great potential of growth through employment creation and alleviation of socio-economic poverty among the indigenous people. The Ministry of Small and Medium Enterprises was formed in 1994 to spearhead this initiative for the good of the nation.

According to the Chamber of Mines (2010), Zimbabwe’s mining sector is focused on the diverse range of small to medium mining operations. This notion is also supported by the International Monetary Fund (2009) through arguing that, due to the general small scale nature of mining activities in the country, a figure between 100-300 000 small scale miners are estimated to be active throughout Zimbabwe indicating the strategic importance of this sector to the future of the mining industry.

The African Development Bank (AfDB) (2012), highlighted that gold output from the country’s small - scale producers has helped the country’s overall deliveries to rise by 50% in November 2011’s total output (African Development Bank-January Economic Review, 2012) . In October 2011, small-scale players’ gold deliveries improved from 126.5 kilograms in June 2011 to 388.1 kilograms and it then declined by 6 percent in November 2011 to 348.5kilograms. The AfDB (2012) says the role of the small miners is becoming more pronounced in the
country’s extractive industry and the economy at large despite a decline in November 2011.

However, the growth of this sector may be affected by the government’s hike of gold royalties from 4.5 percent to 7 percent with effect from 1 January 2012 and lack of capitalisation as further projected by the AfDB.

1.2.3.1 Small-Scale Gold Buyers

In Zimbabwe, the intermediary gold buyers are mandated to be registered for them to be in a position to deal with precious minerals like gold in accordance with the Mines and Minerals Act (Chapter 21:05) as well as the Precious Stones Trading Act (Chapter 20:27). According to the Monetary Policy Statement (July, 2004), a figure of 214 registered buyers and custom millers are working with Fidelity Printers and Refiners (FPR) to reduce grey market activities in the country since 2004.

According to Statutory Instrument 11 of 2012 (published on 27 January 2012), a licence to deal in precious stones and a gold buying licence now attracts US$100 000 and US$5 000 up from US$2 000 and US$2 500 respectively. A custom milling licence is now US$8 000 from US$2 000 (Sunday Mail, February 5-11 2012). When all the necessary registration procedures are undertaken by the prospecting buyers, a licence to play any one of the following roles is granted:

(a). Buying of gold from the small-scale miners and then selling it to the RBZ which minimizes some leakage of gold since they buy directly from the field of production. Small-scale gold buyers also access remote areas where the RBZ can not reach and in the process minimizing black market activities of gold trade in the country;

(b). Provision of finance to bail out the small-scale miners in their day to day operations, though on a limited capacity;
(c). Provision of some milling facilities and chemicals like mercury in the processing of gold ore. After milling, gold buyers charge some processing expenses which are deducted from the gold that the small-scale miners sell to the buyers; and

(d). Gold buyers also provide some technical assistance to the small-scale miners through the provision of relevant mining knowledge that can go a long way in improving the operations of the small-scale mining sector.

Small-scale gold buyers are also bound by the Gold Trade (Gold Buying Permits for Concession Areas) Regulation and the Mines and Minerals (Custom Milling Plants) Regulations Statutory Instrument 239 of 2002. In the mining City of Kwekwe, between 50 and 100 intermediary buyers are estimated to be operating whilst a figure of 55 is officially registered and they are estimated to be buying on average 10 kilograms of gold per small-scale miner per year. According to Mpofu (2012), the small-scale gold buyers have contributed over 600 kilograms of gold to RBZ in the first quarter of 2012 and around 2000 kilograms in 2011. However, efforts to increase deliveries are being affected by the inefficiency of FPR to pay them timeously with a waiting period of 30 days, hence allowing side marketing to prevail.

1.3 MACRO-ENVIRONMENTAL ANALYSIS OF SMALL-SCALE GOLD BUYERS AND MINING SECTOR

The researcher carried out an environmental scan using PEST analysis. The word ‘PEST’ is an acronym that stands for Political, Economic, Social and Technological factors that affect the operating environment of business (Aaker, 2001).

1.3.1 Political Factors

According to the IMF report (2011), the Zimbabwean economy is characterised with a lot of political risk emanating from the inconclusive land reform programme, the bickering of political parties in the inclusive government as well
as lack of consistent policies. These factors are scaring away investors who have since taken a wait and see approach with their investment funds. Statistics from the Chamber of Mines (2010) indicate that out of the US$50 billion to Africa between 2002 and 2007, only less than 0.1 percent of foreign direct investment (FDI) was received by Zimbabwe.

The enactment of the Indigenisation and Economic Empowerment Act (Chapter 14:33) by the government is also another political risk factor. On the 25th of November 2011, the government published general Notice 114 of 2011 which prescribes the minimum requirements for indigenisation plans to be submitted by businesses in the mining sector (Chamber of Mines, 2011).

The government set aside 51% as the threshold for foreign investors to cede to locals and only retain 49% of equity. The investing community is viewing this piece of legislation as a ploy by the government to nationalise their mines whilst the government is taking it as a black economic empowerment initiative. The government also gazetted new mining fees which the small scale mining sector is crying foul as too exorbitant against their operations (Sunday Mail, 5-11 February 2012).

The gazetted new mining fees is also an addition to an increase of mining royalties, with that of gold being increased from 4.5 percent to 7.5 percent with effect from 1 January 2012 (Herald, 1 January 2012) a situation which is not favourable to both the small-scale miners and the gold buyers’ operations.

On an international scale, the American government enacted the Zimbabwe Development and Economic Recovery Act (ZIDERA) in 2001 which prohibits American companies and investors from conducting business with some local companies like ZMDC (Zimbabwe Mining Development Corporation) a key player as far as the assistance of the small-scale miners is concerned. This is affecting the intermediary gold buyers to increase quantities of gold they buy since the productive capacity of small-scale gold miners is being hampered as a result of cash flow challenges facing ZMDC to fund the small-scale miners’ operations.
In general, the political environment has negatively impacted on the operations of small-scale miners through the enactment of legislation that scares away potential investors from a sector that is highly undercapitalised whilst at the same time increasing royalties on gold from 4.5 percent to seven percent. On the contrary, the gold buyers have been affected through an increase of gold buying licences from US$2000 to an astronomical figure of US$100 000 which is required to be paid once off and is also non-refundable.

1.3.2 Economic Factors

The Zimbabwean economy is operating with many challenges such as the liquidity crunch, unfavourable Balance of Payment position (BOP) and companies at below optimal production levels. The Confederation of Zimbabwe Industry report (2011) estimated the manufacturing sector to be operating at 57 percent while the Chamber of Mines report (2011) estimated that of the mining sector to be at 66 percent.

The dominating imports against exports are affecting the BOP position draining the little foreign currency in the economy. The World Bank outlook report (2012) indicates the current account deficit of the Zimbabwean economy to be 23.4 percent of the Gross Domestic Product (GDP) with Gross official reserves including the IMF’s special drawing rights allocation at US$197 million as at 31 December 2011. This represents 0.3 months of imports yet the ideal minimum figure is three months of import cover.

Lack of vote of credit from the developed nations especially from the Euro Zone is also affecting the fiscal space in the economy since they are battling a recession (Fiscal Policy Statement, 2011) with the government struggling to set aside enough funds for capital expenditure especially in the small-scale mining sector to revamp their operations.

The unavailability of lines of credit at concessionary rates in the economy is also affecting the small-scale miners to capitalise their operations with a few local
banks offering loans at high interest rates of around 30 percent per annum (Monetary Policy Statement, January 2012). The punitive high interest rates are also a major hindrance to the intermediary gold buyers since they can not afford to borrow for recapitalising their milling processing equipment which can go a long way in improving the small-scale miners’ operations in the processing of gold ore. This means that the production volumes from the small-scale miners is reduced and in the process affecting buyers to expand their gold buying and selling business to the RBZ.

The general decline in the economic performance resulted in Zimbabwe losing its accreditation to the London Bullion Market (LBMA) which is a gold marketing certifying association (Mining Weekly, 2006). The effects of this loss of accreditation translated into loss of quality certification, hence impacting negatively on the market value of gold. This means that the gold buyers are not realising the true value from their trade whilst the small-scale miners operations are depressed due to lack of substantial revenue from gold sales at a time the domestic economy is operating on a low depositor base threshold and punitive interest rates.

1.3.3 Social Factors

Small-scale mining is mainly driven by poverty though it plays an important role in the socio-economic wellbeing of the nation through creating employment opportunities and income generating projects. However, the participation of women and children in such a labour intensive sector is of great concern. According to the research by the IMF (2010), women and children participation in the small mining sector account for close to 50% in countries like Tanzania and Zimbabwe.

The mining activities of this sector can damage the environment with serious health repercussions for both the workers and the surrounding community due to poor mining practices and processes. In most cases, the small-scale miners are
not skilled to do mining coupled with lack of educational infrastructure to enhance their skills.

The HIV and AIDS scourge has also not spared both the small-scale miners and intermediary gold buyers and this has affected their operations since their most experienced and energetic workforce is being lost through death as a result of this pandemic. The situation is compounded by the fact that small-scale mining operations are situated in remote areas of the country where access to health care facilities is not ease due to poor road infrastructure (World Bank Report, 2005). As a result, the intermediary gold buyers business is being affected since some of the most productive small-scale miners are succumbing to the deadly pandemic leaving behind new and inexperienced miners in the sector.

The economy is also suffering from an acute shortage of experienced artisans since the economic induced brain drain of the past decade. The mining sector in particular lost most of its experienced artisans and engineers to countries like South Africa, Namibia and Australia (ZMDC, 2009) with the small-scale miners and intermediary gold buyers being affected as well.

### 1.3.4 Technological Factors

Mining business is highly capital intensive and require state of the art machinery to increase production as well as minimize costs. According to the report by the Chamber of Mines (2010), low gold production in Zimbabwe especially from the small-scale miners is not as a result of mineral depletion, but rather under investment in exploration and production facilities over the years.

There is a huge gap between the small-scale miners and large-scale miners when it comes to technological advancement, creating a good opportunity for intermediary buyers to come to the rescue of the small-scale miners for the sourcing of state of the art equipment as well as facilitating training on how to operate and maintain the equipment for sustainable development and increased output. The engagement of foreign strategic partners brings the much needed
expertise and leads to diffusion of technology which leads to improved efficiency of these small-scale mining enterprises (Supplement to the January Monetary Policy Statement, 2009).

The report by the Chamber of Mines (2010) further project that with the right investment in exploration and the treatment of refractory ore bodies in the small-scale mining sector, gold production may increase to 50 tonnes within a 10 to 15 year time horizon. This shows that technology plays a very crucial role in this age since it help businesses gain competitiveness against its peers in the same industry and small-scale miners and intermediary buyers are not an exception. According to Thompson, Strickland and Gamble (2010), in the industry where technology is the primary driver of change, translating technological advances into innovative new products and services is a necessity to gain competitive advantage.

Given the low technological advancement in the small-scale mining sector, the miners are failing to increase production whilst at the same time failing to produce and refine gold resulting in selling only gold ore which faces low market value to gold buyers. This has an effect of prejudicing gold buyers also because the gold ore requires further value addition, thus increasing operational costs.

1.4 STATEMENT OF THE PROBLEM

The gold buyers assist the small-scale miners through the provision of milling plants, marketing and to a smaller extend financing. Despite getting some assistance from the buyers, the small-scale mining sector has received little investment amounting to less than 1 percent of the total mining industry investments prompting the Ministry of Finance to create a Mining Industry Loan Fund (MLF) to cater for the needs of the small-scale miners. In addition to that, the small-scale mining sector remains a grey area in the mining industry fraught with underdevelopment and capitalisation problems.
Most gold buyers face some challenges of marketing their gold due to low volumes being realised from small-scale miners which ranges between 10 to 15 grammes per every tonnage of gold ore and these low production volumes make it unattractive for the buyers to travel from far places like Kwekwe to Harare to sell their gold to the RBZ since it increases their operating costs. In addition FPR is giving a waiting period of 30 days to pay for gold deliveries. However, unlike the large-scale marketing of gold which is well organised with prices being influenced by the London Bullion Exchange and all gold deliveries being declared to the Ministry of Mines, the majority of gold buyers are restricted by the Gold Trade Act and the Mines and Minerals Act which only allow legally registered buyers to sell gold to the RBZ.

Given the strategic importance and the vast opportunities that are inherent in the mining sector, the small-scale miners are yet to establish themselves for a sustainable development of the economy and the nation at large. Several reasons that explain the small-scale mining sectors’ challenges include limited access to credit finance, lack of modern mining equipment and restrictive gold marketing conditions. This study is an attempt to analyse the role of gold buyers in the day to day operations of this sector to achieve meaningful growth.

1.5 RESEARCH OBJECTIVES

The objectives of the research are:

1. To assess the functions of small-scale gold buyers in the small-scale gold mining sector;

2. To identify benefits brought by gold buyers to small-scale gold miners;

3. To establish the contributions of gold buyers in the operations of small-scale gold miners in Zimbabwe;

4. To determine challenges faced by small-scale gold buyers;
5. To identify factors that influence the role played by small-scale gold buyers in the small-scale gold mining sector;

6. To make recommendations on the best options that can be adopted by the small-scale intermediary buyers in Zimbabwe.

1.6 RESEARCH QUESTIONS

(a) What are the functions of small-scale gold buyers in the small-scale gold mining sector in Zimbabwe?

(b) What are the benefits of gold buyers in the business operations of the small-scale miners in Zimbabwe?

(c) What are the contributions of the gold buyers in the small-scale gold mining sector in Zimbabwe?

(d) What are the challenges being faced by the small-scale gold buyers in their operations?

(e) What are the best options available for adoption by the intermediary small-scale gold buyers in the small-scale gold mining sector in Zimbabwe?

1.7 RESEARCH PROPOSITION

The research proposition is that the role being played by the intermediary gold buyers’ in the small-scale gold mining sector is critical in their day to day operations.

1.8 SIGNIFICANCE OF THE STUDY

The study will give an insight as to the nature of the role being played by the intermediary gold buyers in the operations of the small-scale gold miners in Zimbabwe. This will assist both the small-scale miners and the gold buyers in improving their business operations as well as aid the government in crafting policies that can enhance the growth of the small-scale mining sector. The
research results will also contribute to the body of knowledge regarding the economic benefits that can be derived from the small-scale mining sector. Lastly, this study is a partial fulfilment by the University of Zimbabwe, Graduate School of Management for the award of Master of Business Administration degree.

1.9 SCOPE OF THE STUDY

This study is centred on the role being played by small-scale gold buyers operating as formal, informal or contractors in the geographical mining location of Kwekwe, a city in the midlands province some 215 kilometres along the Harare - Bulawayo highway for a period of six months. The research targets both small-scale gold buyers and artisan miners in the area.

1.10 STRUCTURE OF THE DISSERTATION

The rest of the dissertation is organized as follows:

The first Chapter focus on the background of study and the statement of the problem whilst Chapter two reviews related literature. Chapter three outlines the research methodology and Chapter four provides Interpretation of research findings. Lastly, Chapter Five give recommendations and conclusions.

1.11 CHAPTER SUMMARY

This Chapter focused on the background of the mining industry in Zimbabwe and the statement of the problem, the macro-environmental analysis, research; objectives, justification and scope of the study.
CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

This Chapter reviews relevant literature of the study starting by outlining the definition of terms, types of intermediation offered, the benefits of intermediation and the drawbacks of engaging intermediaries in the market. Models that can be adopted by Small-scale gold buyers in the small-scale gold mining sector are also outlined. The chapter concludes with a chapter summary.

2.1 DEFINITION OF TERMS

2.1.1 Artisan small-scale gold miners

According to Hentschel, Hruschka and Priester (2003), artisan small-scale mining refers to a group, cooperatives or individuals working mainly in the informal sector of the market with minimal or no mechanization for mining minerals. The World Bank (1995) defines artisanal small-scale mining as a type of low technology mining conducted on a small-scale, predominantly in rural areas of the developing world. The word “artisan” is described by Compendium on Best Practices in Small-scale Mining in Africa (2002) as someone who does skilled work with his hands for a living.

However, there are some countries like Brazil with special laws that apply different treatment to small-scale mining and the following criterion is used (Chaparro, 2000) cited in Hentschel et al. (2003):

- Production volume;
- Number of people per productive unit;
- Volume of capital employed;
- Size of mining claim; and
- Sales volume
The definitions of artisanal small-scale mining vary from country to country and are mainly affected by the macro-economic situation, the mining history as well as the legal framework (Hentschel et al., 2003). Nevertheless, the small-scale miners are characterised with limited access to markets, limited mechanization as well as chronic lack of working and investment capital (Dreschler, 2002).

2.1.2 Buyers

A buyer is defined as a professional purchaser specialising in a specific group of materials as well as other goods and services through experience gained in market analysis, purchase negotiations, bulk buying and delivery coordination (www.businessdictionary.com accessed on 31 May 2012).

2.1.3 Intermediation

The Organization of Economic Co-operation and Development (2010) defines intermediation as a process by which a firm acting as the agent of an individual or another firm (a buyer or a seller) leverages its middlemen position in the market place leading to transactions and exchanges of both economic and social value. The main activities of intermediaries according to this definition are:

- Facilitation of information exchange;
- Facilitation of market processes; and
- Balancing the needs of both the buyer and the seller.

According to Howard Partners (2007), an intermediary is defined as a body or organization that acts as an agent or broker in any aspect of the business process between two or more parties. The activities that intermediaries play include the following:

- Helping to provide information about potential collaborators;
- Brokering a transaction between two or more parties;
- Helping to find advice, funding and support for the business outcomes of such collaborators; and
• Acting as a mediator or “go-between”, between bodies or organizations that are already collaborating.

From the two given definitions of intermediation, the researcher note that they are sharing some common fundamentals such as the facilitation of information as well as providing market processes to satisfy the needs of both the buyer and seller.

The need for intermediation occurs due to the imperfect nature of markets and the need for perfect knowledge (Campbell and Kracaw, 1980). However, this perfect knowledge is not easily available to every information seeker in the market, hence the cropping up of intermediaries. Mining today is an applied art; the business model must be efficient and worthwhile, taking into consideration all aspects such as; preliminary mineral test-work, resource targeting, evaluation, environmental and social concerns as well as the return on expenditure which all emanates from sound knowledge sources.

2.2 MODELS THAT CAN BE ADOPTED BY SMALL-SCALE GOLD BUYERS IN THE SMALL-SCALE GOLD MINING SECTOR

According to African Mining (2000), Australia is a country well endowed with mineral resources and over seven percent in value of her goods and services comes from mining activities. The mining success of Australia can be traced back to the favourable policies that encourage investment and funding opportunities especially to the small and medium enterprises (Howells, 2001). For instance, the Australian government revised its mining tax so that it becomes friendly to investors (Financial Review, 11 February 2011). This review of taxes will result in treasury earning US$40 billion instead of the projected US$100 billion in the next decade which allows the mining sector in general and the small-scale mining sector in particular to grow and contribute more to the economy in the long term.

The examination of Australian experience has shown that intermediary models can go a long way in assisting the operations of small businesses particularly
those in the mining sector. For the purpose of this study, two models have been reviewed, namely; an intermediary consulting model and technology brokerage model.

2.2.1 An Intermediary Consulting Model

In Australia, a wide range of consultants provide intermediary services as an important part of their business service offerings (Howard Partners, 2006). These are well qualified, experienced and knowledgeable service providers who can advise clients on all aspects of business development and growth including the use and application of technology. The major benefit derived from the consulting model by the small to medium-scale enterprises is that it creates value through the provision of advice since it sells knowledge based capabilities.

In their day to day operations, consultants may be able to identify and assist the small to medium enterprises in the acquisition of technology (Howells and Fowler, 2001). However, on its own, this aspect of consulting is unlikely to generate sufficient revenues to offset the costs. The other challenge is that small firms are not willing and able to provide introduction service payments that can not translate into value. According to Hentschel et al. (2003), the small-scale miners are only willing to maximize the benefits of their produce since they are constrained in working and investment capital; therefore they consult the small-scale gold buyers to assist them in marketing and sourcing funding requirements.

2.2.1.1 Critique of the Consultancy Model

According to Williams (2001), consulting is never far from criticism. Ormerod (1997) concurs arguing that business consultants operate in an “opportunistic” mode. Bloch (1999) shares the same view by being skeptical about their efficiency. Bloch (1999) suggests business consultants have a tendency of thinking about the new business as soon as they secure one contract. Gilbert (1998) also comment that consultants are like doctors or therapists who are engaged to carry out a diagnosis and then prescribe a “less or more painful
treatment” to their clients before dealing with another client. Madhavan and Smidt (1993) and Hasbrouck and Sofianos (1993) find that specialists have an investment motive to their trades.

Schein (1997) points out the character and arrogance which are displayed by some business consultants who sometimes not only make recommendations but also stick by them even if they are rejected by the clients. Abrahamson (1991) put across another critique of the consultancy model by arguing that consultants are like “fashion setters” in charge of setting the trends as well as display the efficiency of their “brand new” tools and techniques to clients for the purpose of gaining competitive advantage over their competitors. Blundson (2002) agrees claiming that most difficulties bedeviling small to medium enterprises are not new whilst their solutions are being well known. Collin (2000) concurs with both arguments from Abrahamson (1991) and Blundson (2002) stressing out that consultants do not bring in anything new to businesses but “old wine in new bottles”.

2.2.2 Technology Brokerage Model

The study undertaken in Australia mining industry (2000) indicated that there is also an opportunity to develop a programme to support small to medium-scale enterprises in accessing knowledge and technologies residing in research organizations and other companies through technology brokers. However, the business model for providing these services differs from providing value added business consulting services.

Howells and Johnston (2003) comment that the technology brokerage model is best applicable when the following are available:

- A panel of technology brokers being appointed to provide services targeting small to medium enterprises;
• Small to medium enterprises that seek to acquire knowledge or technology capability provided through a research contract or consultancy; and

• The broker would work with the small enterprises to facilitate the transaction, including terms and conditions as well as monitoring progress.

According to Howard Partners (2005), the key benefit of a technology brokerage is to fill an important gap for small and medium enterprises in relation to their access to and use of technology and knowledge capabilities in research organizations and technology oriented businesses.

Table 2.1 summarizes the models with the nature of roles being played by the consultant or a broker, the nature of the business model as well as the nature of the value proposition derived from these models. In the context of mining, a consultant or broker plays a key function in the mobilization of funds (Levine, 1998) whilst the increase in mineral production and better operating techniques are the derived value that small-scale miners can benefit through effective use of the acquired technology.
### Table 2.1: Nature and characteristics of intermediary business models

<table>
<thead>
<tr>
<th>Nature of role</th>
<th>Nature of the Business Model</th>
<th>Nature of the ‘value proposition’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultant</td>
<td>Expert professional advice based on the knowledge, skill and experience of the consultant. In an Innovation context, advice might relate to due diligence, strategic marketing, Information Processing and technology acquisition.</td>
<td>A professional services firm model—providing and selling knowledge-based capabilities. These are reflected in a person’s or a firm’s reputation and track record, their integrity and their credibility in providing solutions for business and government. A highly contested market with freedom of entry—often a lot of effort goes into marketing capabilities. Consultants are typically paid on a fee for service basis, calculated by salary cost, recovery of direct and indirect costs, and a profit margin.</td>
</tr>
<tr>
<td>Broker</td>
<td>Agent acting for a creator and or acquirer of sought after knowledge or technology. Interprets business needs and ‘translates’ available capabilities to meet that need. Brokers can also perform an integration role bringing multiple parties together into a collaboration ‘deal’. Roles may involve assistance in negotiating contracts, purchases, or sales.</td>
<td>An agency model—people acting for either buyers or sellers of knowledge (rarely both) on the basis of their capacity to meet needs through their networks and ability to initiate and negotiate deals (Acting for both gives rise to conflicts of interest—a reason why brokers are often regulated). An example would be a technology broker, acting on behalf of a client, who identifies or seeks out a technology and works towards creating a deal. Supplements the role of knowledge exchanges. Brokers are typically paid a commission on the value of a transaction or a success fee. They may also be paid on a retainer basis. Government grants may also be paid</td>
</tr>
</tbody>
</table>

Source: Howard Partners (2007)

### 2.3 THE ROLE OF SMALL-SCALE GOLD BUYERS AS INTERMEDIARIES

Intermediaries are people or institutions which bring buyers and sellers together through addressing and resolving information asymmetries in the market as a result of incomplete understanding of source, availability, quality as well as the efficacy of the products and services on the part of the buyer and the incomplete understanding of buyer needs and requirements on the part of the seller (Howard Partners, 2006). In the small-scale mining sector, intermediaries fill so many gaps that are inherent in the day to day operations of the miners. According to Howells and James (2001), these gaps can be categorized as follows:
• Transfer gaps;
• Information gaps;
• Access gaps; and
• Translation gaps.

2.3.1 Transfer gaps

In this case, the intermediaries try to fill this gap through negotiation of operating licenses, consultancy work as well as providing project management skills which is beyond the capability of most small to medium-scale enterprises (Howard Partners, 2007). Howells (2005) agrees arguing that negotiation of knowledge or technology transfer is vital since the skills and resources of small to medium enterprises such as artisanal small-scale miners is beyond their capacity. This may involve complex terms and conditions with some justified by the nature of the transactions and some not. Howells (2005) further elaborates that this is an area where substantial risks may be encountered by the small firms especially in the small-scale mining sector due to uncertainties about transfer agreement costs as well as long term implications of the technology to productivity.

However, Howard Partners (2007) are of the view that transfer agreements may require expert professional services input to assist with legal, contractual or tax issues of which the small-scale gold buyers fill such a gap. It is also the case that technology suppliers may set prices on a full cost recovery basis which many small firms may find it difficult to pay in full and intermediary gold buyers can assist in procuring and funding the machinery (Hilson, 2001).

2.3.2 Information gaps

Small-scale miners mostly encounter this information gap when it comes to the identification of relevant, applicable and useful techniques in their day to day operations (Dreschler, 2002). Howard Partners (2007) comment that information gaps arise as a result of difficulties the small firms encounter in accessing
relevant and modern technology as well as marketing opportunities for their produce.

In the current business environment of turbulence, small-scale miners need to acquire technology in the market through joint ventures with established miners, collaborations with suppliers or formulate market-linkages with gold buyers (Appiah, 1998). Howells (2001) is of a different view arguing that small-scale miners can own technologies or create knowledge they require for their core functions in mining. Howard Partners (2007) concurs arguing that in such a scenario, intermediaries like small-scale gold buyers support the small-scale gold miners through information search as well as provide assistance in finding people with sought after skills and experience. In the small-scale mining sector, the information gap is predominate since most countries lack the political will to formalise the operations of this sector (Dreschler, 2001) which results in the lack of technical expertise, formal marketing and capital constraints in this sector.

2.3.3 Access gaps

Small-scale miners find it difficult to access technology, knowledge and capital whilst experiencing some challenges when they know where to find them due to lack of organization and accountability in their operations (Dreschler, 2001). In Tanzania, the government entered into a joint venture arrangement with a South African company to facilitate technological, buying of gold and funding requirement for small-scale miners. However, Howard Partners (2006) argues that even where an access point is identified, it may be necessary for a small to medium-scale enterprise to establish competency about the way the technology and finance is to be used in the business to achieve sustainability and attract investors.

Small businesses especially in the small-scale mining sector do not enter the market to purchase or acquire technology for the sake of it, but they are after access to capability and expertise from the suppliers and manufacturers of such technology (Hilson, 2001). However, small firms may know that a capability
exists in research organization but they are unsure how to access it for efficient and effective use which then requires the services of intermediaries like small-scale gold buyers to provide such advice (Howard Partners, 2007).

### 2.3.4 Translation gaps

Small enterprises find it difficult when it comes to the transformation of knowledge embedded in a technology into a form and format that can be used in the efficient operations of production (Howard Partners, 2007). The small-scale miners are not an exception when it comes to the difficulties of applying technology from exploration, extraction as well as the final processing of gold ore (Dreschler, 2002).

Intermediaries such as small-scale gold buyers are seen to play an essential role in the market when it comes to the transference and translation of knowledge as well as technologies from creators to the real application on the mines on a commercial basis for real production (Journal of South African Mining and Metallurgy, 1998). However, successful small enterprises are known to be active seekers of advice (Johnston and Fowler, 2001). In seeking advice, Howells (2006) argue that they go for “trusted advisers” from small-scale gold buyers, friends or professional business advisers since mining by its very nature is financially expensive, environmentally invasive and socially intrusive (World Bank Group Mining Minerals and Sustainable Project, 2012). Therefore, seeking information and advice from good sources will help in the minimization of risk in this mining business.

### 2.4 TYPES OF INTERMEDIATION IN THE SMALL-SCALE GOLD MINING SECTOR

In order for intermediaries to play their role in the market, Howard Partners (2006) argues that eight types of intermediation comes into play namely; consultant, mediator, resource provider, broker, contractor, buyer, Surveyor of rich gold deposits and tributer arrangements. Effective intermediation involves a
capacity and capability to match and shape both supply and demand side issues in the market.

2.4.1 Consultant

Business consultancy due to its numerous forms is a difficult process to define. However, the Institute of Management Consultancy (IMC) (1963) tried to agree on an “official” definition of business consultancy. According to this official definition, “business consultancy is the service provided to business, public and other undertakings by an independent and qualified person” (IMC cited in Mclarty and Robinson, 1998, p.256).

Although the definition from the IMC is “official”, it does not refer to the role played by management consultants. This gap prompted Greiner and Metzger (1983, p.7) to step up forward in defining business consultancy as “an advisory service contracted for and provided to organizations by specially trained and qualified persons who assist, in an objective and independent manner, the client organization to identify management problems, analyze such problems, recommend solutions to those problems and help when requested in the implementation of solutions”.

A close analysis of the definition by Greiner and Metzger (1983) brings out a number of points worth mentioning for the purpose of this study. For instance, business consultancy requires specific skills and a specific level of knowledge in order to help clients identify the problems at hand. In other words, business consultancy mainly revolves around the acquisition and sharing of knowledge. This view is shared by Berry and Oakley (1993) when referring to business consultancy as the “knowledge industry”. However, Clark and Salaman (1998) suggest that if one is willing to understand the role of business consultants, the entire consultancy process need to be analyzed.

In order to understand the role of business consultants; it is important to firstly explore the underlying factor of why firms in general and small-scale miners in
particular engage the external professionals for consultancy services. Pellegrinelli (2002) as well as Massey (2003) notes that some organizations engage the services of business consultants to be assisted in the selection of the appropriate strategies from many available alternatives. In this regard, the small-scale miners are not an exception as they also need to strategize for survival in this capital intensive business. Another reason for engaging consultants stems from the notion of uncertainty in the business environment. This notion is supported by Wittreich (1966) through stating that a client who wishes to purchase a professional service first senses that he has a problem, but is uncertain as to what the specific nature of the problem is, a phenomenon that characterizes the business operations of the small-scale miners. However, Blundson (2002) reveals that this feeling of uncertainty is the root foundation for consulting services. Sturdy (1997) argues that the major role of any business consultant is the provision of information as well as assurance that reduces the uncertainty which may exist in the small and medium enterprises.

There are so many different schools of thought when it comes to the role being played by the business consultants especially in the small-scale mining sector. Some are of the view that consultants only play a single goal whereas others such as Lippitt and Lippitt (1986) views that consultants plays a number of roles which are appropriate for small enterprises like small-scale miners. Chapman (1998) seems to agree with Lippitt and Lippitt (1986) school of thought. In this case, Chapman (1998) concluded that consultants in the small-scale mining sector can fill a variety of roles depending on the demands of the underlying situation.

However, Massey and Walker (1999) assume that the assignment undertaken by the consultant in resolving the small-scale miners’ challenges is most likely to be successful if appropriate roles are aligned with their expectations. Kubr (1996) simplified the roles being played by consultants in the small-scale mining sector into two basic ones. Firstly, the “process role” in which the consultant assist the small-scale miners to solve their problems through an awareness of the miners’
operational processes from exploration, extraction, milling up to marketing (Boardia, 1998). The second one is the “resource role” in which the consultant assists the miners’ through the application of gained experience and knowledge from handling and solving problems of a similar nature in the industry (Howard Partners, 2007).

2.4.2 Mediator

According to Guffey and Almonte (2010), mediation is essentially practice based which requires knowledge and technical skills. It is defined from two perspectives; as an art that incorporate both intuition and vision as well as a craft with transferable tools, definable tasks and management challenges. The ability to instinctively win the trust from clients especially mediating for the small-scale miners is a vital characteristic for a successful mediator and not everyone has or can acquire it (Guffey and Almonte, 2010). However, mediators in the private business have substantial advantages over their counterparts in the public sector since there is less bureaucracy which allows them to act fast, take bigger risks as well as being creative (The Economist, 30 June 2011).

Mediators with specific skills and expertise are capable of handling difficult management challenges presented by their clients (Guffey and Almonte, 2010). In the small-scale mining sector for example, mediators can use their expertise in advising the miners about opportunities and potential benefits of other investment options to spread the risk. This sentiment is shared by Smith and Smock (2009) arguing that mediators play an essential role through the use of formal institutions like Chambers of Mines in promoting accountability in the small-scale mining sector. The skills and knowledge of these mediators allows them to win their case through utilizing third party experts, for instance geologists, politicians and economists for the good of the small-scale miners to gain recognition and funding opportunities.

There are wide ranges of mediation techniques for instance provision of marketing services, finance and technical expertise which can be implemented
depending on the demands of the problems at hand (Guffey and Almonte, 2010). However, the role of the mediator is to make use of his skills and techniques as well as incorporating both parties concerns to achieve meaningful results.

2.4.3 Resource Provider

According to Hill (2011), many businesses in the world today face some challenges to grow their business beyond their borders as a result of failure to put in place sound financial strategies, lacks the necessary expertise to run the business as well as poor technology. In this context, the intermediary plays a role of a resource provider to secure as well as fund the operational needs of the small-scale miners. According to the World Business Council for Sustainable Development (2002), small-scale miners usually find it difficult to secure loans from the private financial institutions because of lack of trust as well as accountability in the sector.

Heemskerk and Oliviera (2004) confirms the above argument by commenting that financial institutions prior to disbursing funds, want to see a calculation of mineral reserves, a financial and management plan as well as a business prospectus. Further more, a typical small-scale miner is not in a position to avail the required documents (ibid). However, it is still possible for the small-scale sector to secure funding from mainly three sources provided that their operations are sound, namely; Government support, International donors and Non-governmental Organizations as well as buyers of the gold (Hilson, 2001).

Apart from mobilization and securing of finance, gold buyers also play an important role of sourcing and provision of technology for the operations of the small-scale miners. According to Thompson, Strickland and Gamble (2010), technology plays a very crucial role in this age since it help businesses gain competitiveness against its peers in the same industry and small-scale miners are not an exception. In fulfilling the role of securing technology, the intermediary will be playing the key role of filling up both the transference gap and translation gap of technology in the small-scale mining sector (Howard Partners, 2007).
Howells (2006) shares the same view by commenting that negotiation of technological transfer including license agreements may be beyond the skills and resources of the small-scale businesses. According to the Journal of South African Institute of Mining and Metallurgy (1998), small-scale mining is characterized by inadequate capital, low levels of production and inappropriate technology. Therefore, gold buyers as intermediaries can perform a critical role in the identification of funding requirements at a very minimum cost since most small-scale miners can not afford to pay the huge costs associated with technological advancement.

According to the United Nations Environment Programme Mining Department (2010), the small-scale miners often lack the technical ability (both pyrometallurgical and hydrometallurgical) to process and treat the concentrates they produce on their claims. Most of them are only in a position to justify their capital expenditure on a simple mineral processing plant such as a gravity or flotation concentrator. However, the major disadvantage of the gravity or flotation concentrator is that it lacks the cleaning circuits resulting in low grade concentrates falling short of export standards (ibid).

2.4.4 Broker

According to Bland (2000), a broker is defined as a firm or individual which acts as an intermediary between a seller and a buyer through charging a commission for the services rendered known as a “brokerage commission”. From the small-scale miners’ point of view, negotiations with brokers are easier and speedier as only intricate points require detailed discussion, hence saving money and time on routine operational matters.

According to Davenport and Prusak (1997), a broker brings buyers and sellers to reach a mutually satisfactory position through playing duties like risk surveys, drafting policy wordings as well as provide risk management services. However, most business contracts in the mining business such as the supply of equipment and investment finance results from the existence of an intermediary who
negotiates on behalf of the parties involved and in most cases this intermediary may be a broker (Howells, 2002). As an expert in his field, a broker must act with due care and skill and must act in accordance with the terms of their contract.

Bland (2000) comment that a broker may become an agent in a number of ways and the most common one is through consent. This simply means that the agent is authorized to act on the small-scale miners behalf (being the principals) by word of mouth or in writing. Mushai, Nkomo and Tshuma (2001) elaborate that from a legal point of view, an agreement will have terms attached to it whether being verbal or in writing. This is because it is very risky to allow someone in business to be your agent with limited powers to act on your behalf.

Once a legal contract has been entered into between the broker and the small-scale miner, unless the person dealing with the broker has been told otherwise they can claim the existence of apparent authority. However, if the small-scale miner later agrees to accept that the act was carried out on their behalf, this is called ratification in law terms.

A broker’s contract may be terminated by agreement between the two parties. In this context, either the small-scale miner or broker could bring it to an end or through death of either party being individuals. The importance of a broker in the business world can not be over emphasized. According to Bland (2000), one of the advantages of a broker in comparison with other types of intermediaries is the ability to place the business that they obtain in the best possible market without being influenced by factors such as the rate of commission that is paid. In other words, the broker strives to achieve the best for his principal’s business interests in what is known in legal terms as acting in good faith.

2.4.5 Contractors

According to Tracey-White (2005), contracts may be arranged with an organization or a buyer through making an advance agreement for a future supply of produce at an agreed price. Tracey-White (2005) further elaborate that
the buyer usually provides capital and extension advice in addition to guaranteeing purchasing the produce. In the case of small-scale miners, some of the gold buyers get into mining contracts with miners where miners are given money and equipment and in return they mine gold for the contractors.

Appiah (1998) points out the importance of contract mining through Meremeta Gold Buying Scheme, a joint venture between the government of Tanzania and Triennex a South African company. The main objective of this venture arrangement is provision of mining equipment to small-scale miners such as compressors and drilling equipment as well as buying gold at 20% reduced price to cover the costs. Given the lack of access to finance, equipment and marketing that affect small-scale miners, the scheme was popular (Appiah, 1998).

2.4.6 Buyer

According to Boardia (1998), the important role of gold buyers cannot be over emphasised as they provide an efficient link between the small-scale miners and the Central Bank. For example in Guinea, the Metals Refinery Operations (MRO) buys and refines almost all alluvial gold produced in the country and it deals with a number of customers from small-scale miners to large gold buyers located in the small-scale mining areas. Boardia (1998) further elaborate that the provision of working capital and a ready market allows MRO to be the final destination gold buyer for the Central Bank of Guinea. Amankwah and Anim-Sackey (2003) comment that the Precious Minerals Marketing Corporation (PMMC) is mandated to licence buying agents and sub-agents throughout mining areas in Ghana who buy gold for resale to the corporation.

2.4.7 Surveyor of rich gold deposits

The Association of Mine Surveyors of Zimbabwe (AMSZ) (1986) cited in Chamber of Mines 71st Annual General Meeting Magazine (2010) defines mine surveying as a branch of mining science and technology which includes all accurate measurements, calculations and mapping which serve the purpose of
ascertaining and documenting information at all stages, from prospecting to exploitation for the purpose of utilizing mineral deposits by both surface and underground workings.

Anim-Sackey (2001) is of the view that mining surveyors provide technical support in prospecting for mineral deposits. Kesler (1994) note that there are uncertainties associated with the discovery of economic mineral deposits which presents challenges to the fundamental objective of profitability and growth in the small-scale mining sector. Kesler (1994) further elaborate that profitability of a small-scale mining business is directly linked to exploration success, production and marketing activities which small-scale gold buyers’ provides. Amankwah and Anim-Sackey (2003) agrees commenting that small-scale mining cannot survive on the basis of current mineral reserves only; hence the assistance of surveyors in mineral exploration is necessary for their survival.

2.4.8 Tributer Arrangements

According to Bannock Consulting (2001), a tributer arrangement is a mutual agreement that involves a licensed claim holder contracting artisanal small-scale miners to produce and sale gold ore for processing. Chiwawa (1993) is of the view that large mining companies sometimes find it cheaper to contract small-scale gold miners to produce ore for their processing plants rather than doing it themselves. However, this usually happens in situations where capital investment and production skill requirements are low of which small-scale miners can easily meet (Hilson, 2001, Bannock Consulting 2001). Artisanal small-scale gold miners involved in this kind of arrangement complain about the prices at which these claim holders pay for the produced gold ore as too low and unsustainable in the medium to long term viability and sustainability of their operations (Bannock Consulting, 2001).

However, in order for the intermediaries to play their roles effectively and efficiently there is need for a functional market in the business environment (Bakos, 1998). In this context, markets must serve three main functions namely,
matching buyers and sellers; facilitation of transactions as well as institutional infrastructure (Bakos, 1998). These main functions have their own sub-functions as outlined in table 2.2.

**Table 2.2: Functions of a Market**

<table>
<thead>
<tr>
<th>Primary Market Function</th>
<th>Sub-Functions</th>
</tr>
</thead>
</table>
| 1. Matching buyers and sellers | - determination of product offerings  
                                   - searching of information  
                                   - price discovery |
| 2. Facilitation of Transactions | - logistics  
                                   - settlement  
                                   - trust |
| 3. Institutional Infrastructure | - legal  
                                   Regulatory |

*Source: Bakos (1998)*

In a traditional market (Hanker, 1990) cited in Howells (2006) argues that the first two functions (matching buyers and sellers as well as facilitation of transactions) are typically performed by intermediaries while the third function (institutional infrastructure) is divided among the intermediary and regulatory bodies or the government.

**2.4.9 Matching buyers and sellers**

In trying to match the buyers and sellers, markets provide sellers with information pertaining to the existence of future buyer demand which then allows sellers to effectively employ factors of production like capital, technology and labour (Bakos, 1998). This information will go a long way in assisting the sellers to develop products and services that matches the anticipated demand. Hagel and Singer (1999) agree commenting that intermediaries support the matching of customer’s requirements and sellers offerings. Intermediaries help the sellers to determine an optimal mix of products since they are close to the buyers in addition to interpret market signals in a more timely manner.
However, buyers also select their purchases from the available product offering after taking into perspective factors like price as well as product characteristics. In the process, buyers incur search costs. Sellers also incur search costs in their bid to find and approach qualified buyers for their products (Bakos, 1998). In this context, intermediaries are known to assist buyers through the provision of a single point of contact for information gathering and market transactions which result in cost reduction. This view is shared by Williamson and Winter (1993) arguing that where networks and markets are seen to be failing, intermediaries are often established to build relationships and facilitate knowledge and technology transfer.

2.4.10 Facilitation of transactions

Intermediaries need to have excellent communication skills and be exceptionally well networked across industry as well as possess reputation, integrity and credibility in the market in order to easily facilitate transactions. Saar (2001) shows that market intermediaries possess important order flow of information which gives them an informational advantage. Hargadon and Sutton (1997) agree in their study which focuses on how intermediaries facilitate the process of knowledge and technology transfer in the market, across people, organizations and industries. This study concurs with work undertaken by Watkins and Horley (1986) stressing that intermediaries play a key role of transferring technology between large and small firms in the market as well as facilitating transactions.

After a market transaction has been agreed upon between the seller and the buyer, the purchased product must be transferred to the buyer. Once the actual logistics of operations have been completed, the buyer has to transfer the payment to the seller in order to settle the transaction. According to Bakos (1998), the intermediary is usually a third party facilitating or monitoring the transaction.

However, some market transactions especially in the trading of gold require the establishment of a certain level of trust between the buyers and the seller.
Trust mechanisms may be facilitated by third parties such as banks and credit rating agencies which are considered as intermediaries in the trust building market function (Howard Partners, 2005).

2.4.11 Institutional Infrastructure

The institutional infrastructure of markets specifies the laws, the rules as well as the regulations that govern market transactions and provide mechanisms for their enforcement (Howells and Fowler, 2001). In this case, intermediaries may include legal agencies, regulatory bodies and the government. Table 2.3 below summarizes the role of intermediaries in each of the market functions discussed above.

Table: 2.3: The role of intermediaries in traditional market functions

<table>
<thead>
<tr>
<th>Market Function</th>
<th>Sub-Functions</th>
<th>The role of Intermediaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matching buyers and sellers</td>
<td>determination of product offerings</td>
<td>Monitoring and alerting as well as reducing search costs</td>
</tr>
<tr>
<td></td>
<td>-searching</td>
<td></td>
</tr>
<tr>
<td>Facilitation of transactions</td>
<td>-logistics</td>
<td>Shipping, distribution and warehousing</td>
</tr>
<tr>
<td></td>
<td>-settlement</td>
<td></td>
</tr>
<tr>
<td>Institutional Infrastructure</td>
<td>-legal and regulatory</td>
<td>-monitoring and protecting</td>
</tr>
</tbody>
</table>

Source: Bakos (1998)

Howells Partners (2007) gives a summary of the functions that intermediaries play in the market. Table 2.4 represents the skill sets required, range of services provided, conditions that allow them to operate effectively and lastly, the barriers to effective operation for intermediaries in the market against each type of intermediation.
### Table 2.4: The way in which intermediaries function in the market

<table>
<thead>
<tr>
<th>Sets of skills required</th>
<th>Consultant</th>
<th>Broker</th>
<th>Mediator</th>
<th>Resource Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>High level knowledge, skills and experience in relevant consulting areas. Skills recognized through reputation and preferably accreditation. Establishes track record and respect among peers as well as evidence of ongoing learning and professional development.</td>
<td>Strong ‘sales’ skills as well as relevant industry knowledge. High level communication and negotiation skills. Ability to see the bigger picture and opportunities. Ability to follow leads as well as knowledge of legal advice.</td>
<td>Skills in capacity to engage with parties. Highly networked with business and research organizations as well as sound leadership, initiative and capacity for lateral thinking. Excellent people skills with high level facilitation and communication skills. Capacity to engender confidence and trust</td>
<td>Understanding of terms, conditions and expectations of collaborating funding programmes. Capacity to indentify and form collaboration teams for joint ventures as well as capacity to develop and articulate a compelling business case. Ability to provide value addition to the collaboration team.</td>
<td></td>
</tr>
</tbody>
</table>

#### The range of services provided

<table>
<thead>
<tr>
<th>Consultant</th>
<th>Broker</th>
<th>Mediator</th>
<th>Resource Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of knowledge and technologies that will assist in developing products and services that meet a market need. Workshops, seminars and other networking events.</td>
<td>Seek out new knowledge and potential opportunities for a client. Communicator and translator of technology and opportunities. Advise on capital raising and assist in negotiating contracts, purchases or sales</td>
<td>Independent matching of technology possibilities and provide introductions to potential strategic partners. Networking events and other informal or formal arrangements for people to establish contact.</td>
<td>Forming and structuring collaborations to submit applications for funding government programmes. Funding intermediaries may also administer the grants programme.</td>
</tr>
</tbody>
</table>

#### Conditions that allow them to operate effectively

<table>
<thead>
<tr>
<th>Consultant</th>
<th>Broker</th>
<th>Mediator</th>
<th>Resource Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to cross subsidize intermediary roles from value added consulting services. Client appreciation of the value of consultants as well as ability to pay fees</td>
<td>Receptor and absorptive capacity among business as well as allowing deals to flow</td>
<td>Reputation, track record and integrity as well as the willingness of people and organizations to share technologies and capabilities</td>
<td>Availability of funding programmes</td>
</tr>
</tbody>
</table>

**Source:** Howard Partners (2007)

The way in which intermediaries function in the market is mainly centred on their skills and the range of services they provide. However, from the summary in table 2.4 it is also noted that intermediaries are also bound by certain conditions that allow them to operate effectively such as the willingness of the small-scale enterprises to commit their financial resources as well as lack of absorptive
capacity of their services and in this regard small-scale miners are not an exception since they are financially constrained (Hilson, 2002).

According to Lewis (1999) as well as Gupta (2002), even in market oriented frameworks, transactions take place between people as business representatives or individuals. Bibb and Kourdi (2004) agrees arguing that where transactions involve an element of uncertainty or risk people like to do business with those they know and trust. Reputation, integrity and credibility are the basis on which trust is anchored as elaborated by Green and Galford (2000) especially when dealing with informal businesses like the informal gold buyers in the small-scale mining sector.

2.5 BENEFITS OF INTERMEDIARIES IN THE SMALL-SCALE GOLD MINING SECTOR

According to Howells (2002), intermediaries by their very nature are intermediate inputs into the value creation processes of a business and it is relatively easy to identify the cost of an input, calculation of the benefit is dependent on a whole range of complementary activities. However, Howard Partners (2006) is of the view that the value of intermediary inputs will depend on how they are used either on their own or in combination with other inputs. Moreover, benefits might be delivered in a non-financial context such as building confidence, providing a sound body for ideas as well as gathering information about business and industry trends.

As reviewed earlier, intermediary services can be provided as consulting, brokerage, mediation or resource providing service. One reason for the value of those services is reflected in their price, that is, how much businesses are prepared to pay for the services and the expected return on those services (Howard Partners, 2007). In most cases, businesses consider cost and value in relation to the alternatives such as doing the work themselves as confirmed by Howells and Johnston (2003).
2.5.1 The Nature of Benefits

Individual intermediaries vary quite significantly in the extent of benefits they produce in the market. Intermediaries are often viewed as specialists along the value chain through matching buyers and sellers in the market, discovery of pricing mechanism, provision of information, value creation as well as physical distribution of products. To the individual small-scale gold miners, there are also benefits that accrue to their operations due to intermediaries’ intervention such as improved production, reduction in travelling costs to markets as well as reduction in the risk of theft when travelling to markets.

2.5.1.1 Matching

Matching is expressed as bringing buyers and sellers together for the purpose of negotiating prices on a dynamic basis (Sarker, 1995). Bailey and Bakos (1997) are of the opinion that intermediaries occupies a very special position in the market since they are very close to a large number of market players both on the demand and supply sides. This argument is supported by Bucklin, Majumdar and Ramasway (1995) commenting that intermediaries are able to act as market makers because they are always in touch with both customers and suppliers. Kaplan and Swahney (2000) weighs in supporting Bailey and Bakos (1997) as well as Buckin et al. (1995) by suggesting that aggregation and matching are value adding functions of intermediation.

An intermediary can assist in making a transfer process come together more quickly and expeditiously in the market and in the process increasing the business value. Meister (2000) is of the view that intermediaries can perform a critical role through establishing trust based relationships by providing references and recommendations about who to do business with. Intermediaries influence the performance of individual organizations as well as add value along the chain and across industries through playing a critical role as innovation carriers and knowledge sources (OECD, 2006). Williamson and Winter (1993) note that intermediaries create an environment conducive for interaction between buyers
and sellers where networks and markets are seen to be failing. Sarker (1995) agrees stressing that the interests of both the seller and the buyer may create conflicts and intermediaries have a role to play as peacekeepers.

Howells and James (2001) also comment that intermediaries undertake integration roles through bringing people together with diverse capabilities and skills into strategic alliances, joint ventures and collaborations in order to capture market opportunities as well as provide solutions to small-scale business challenges. Smith, Turnbull and White (2001) share the same view arguing that intermediaries effectively screen out informed trades in the market resulting in valuable economic transactions and creation of opportunities. However, there are costs associated with the transactions such as communication of price, quality and product specifications as expressed by Wu (2004).

2.5.1.2 Pricing discovery

According to Hasbrouck and Sofianos (1993), market intermediaries are informed traders who contribute to price discovery. Holden and Subrahmanyam (1992) are of the view that market intermediaries’ ability to predict short term price movement might be more valuable than information held by outside customers and the role of information, its sources and how it gets incorporated into prices has received considerable attention in the literature.

Price discovery has recently been studied on many dimensions with Burton and Bragg (2001) pointing that the intermediate customer or “middlemen” exert a profound influence on pricing decisions in the market. This agrees with the view of Dreschler (2002) concerning the small-scale miners through arguing that they often depend on the fixed prices of local buyers and intermediaries than global market prices. However, the price received by the miner also depends on the number of middlemen involved in the business and the greater the number of middlemen, the lower the price the miner obtains (Banock Consulting, 2001).
A case in point is Tanzania where a round shaped tanzanite weighing between 2 to 3.5 grams was sold for 0.5 million Shillings to a small broker by the miner at Tunduru mine site in 1996 (Banock Consulting, 2001). The broker sold the same stone to a secondary broker at 1.5 million Shillings. A dealer in Dar es Salaam then paid 3 to 3.5 million Shillings for the stone which in turn was sold to a foreign buyer at 4 to 4.6 million Shillings.

Kotler (2008) brings out an idea that intermediaries are specialists in marketing and selling products emanating from the fact that they have the contacts and the expertise which allows greater sales to be achieved. However, generally the market determines the price under which products will sell and thus establishing a price ceiling, a fact which is disputed by Anand and Subrahmanyam (2005) stressing that price discovery primarily occurs through intermediaries who trade based on their private signals about the asset’s unobservable true value. Dreschler (2002) concurs arguing that small-scale miners are more often dependent on the fixed prices by local buyers and intermediaries than market prices from the global village; this imbalance tends to be rampant when miners are working illegally without government protection and in the process being exploited by intermediaries or traders.

In Mali for example, Dreschler (2002) argues that miners are being exploited by large foreign traders who control about 90% of gold exports through paying prices which are very difficult to control and are much lower than the prices on the international market. Traders buy gold on site through a complex network of intermediaries as well as local buyers who have special links with small-scale miners. The small-scale miners usually receive low prices amounting to 30 or 50 percent of global market prices whilst those working further along the value chain like intermediaries and manufacturers benefit more in profits (ibid).

Large miners also intervene in assisting small-scale miners to sell their products at the prevailing market price. For example, in Ghana, Gold Fields Company
established purchasing-services in which the small-scale miners sell their produce to the company at the prevailing market prices (Appiah, 1998).

Deng and Yano (2002) point out that a buyer may first order from a supplier at the contracted price before observing the demands of the market and then places additional orders at the spot price after observing the market demand. According to Wu (2004), the setting of a spot price is as a result of a bargaining process in the market. However, Taylor and Plambeck (2003) is of a different view arguing that writing binding contracts which specify the price before assessing the suppliers investment capacity may be impossible due to various market dynamics. Park (1989) concurs elaborating that the corresponding price must be determined through seller-buyer negotiation rather than the seller only dictating the price. Bailey and Bakos (1997) also shares the same view through suggesting that a “winner takes all” market can emerge when one producer dominate on price or quality.

2.5.1.3 Provision of Information

Intermediaries provide market processes and at the same time provide information and aggregation by making it known that a given good is on sale (OECD, 2006). Nonaka and Takeuchi (1995) cited in O’Keefe (2002) argues that the success of an organization principally lies in its ability to create, accumulate as well as exploit the knowledge domain. In this context, Larwood and Gatiker (1986) suggest that an intermediary plays that important role in filling the knowledge gap for their clients. Sarker (1995) is also of the opinion that intermediaries provide information that benefits both the buyer and the seller and in addition they also assist businesses in searching for and evaluating potential markets.

In the market of commodities, the buyer and the seller may have outside options which may influence their bargaining positions as well as affecting the way they value the products (Kotler and Keller, 2006). This information asymmetry according to Wu (2004) can lead to complications in the interactions of both the
supplier and the buyer which result in inefficiency called adverse selection. Wu (2004) further elaborates that players may end up making misinformed decisions due to information distortion and in that case, a third-party agent becomes handy in acting either as a broker or arbitrator in regulating the trade. Sarker (1995) suggest that adverse selection may be minimized by an informational intermediary through administering some coordinating mechanism as well as synthesizing information dispersion which benefits the market players. In Ghana for example, the government established purchasing centres that also coordinates the buying of precious minerals and in the process eliminating illicit marketing since there is a direct link between the miner and the buyer (Hilson, 2001).

2.5.1.4 Value Creation

Intermediaries can be viewed as specialists along the value chain since they bring products closer to buyers, smoothen market fluctuations, provide expertise as well as provide reputation as long-run players (Wu, 2004). Outcome benefits occurs when wealth is created as a result of fulfilling technology, knowledge and funding requirements (Howells and James, 2001).

In the small and medium enterprises, the process that an intermediary facilitates can have an impact in terms of benefits for the creators of technology as well as for the broader economy through the creation of jobs and export earnings. However, Crucini and Kipping (2001) comment that adapting the knowledge of business consultants to the clients needs is a value addition. This is referred to as offering customized solutions to the clients’ requirements by Fullerton and West (1986). On the same note, Gandhi (2006) suggests that intermediaries often successfully develop standards which cater for the needs of businesses in functional areas like marketing, finance and production.
2.5.1.5 Physical Distribution

Tracey-White (2005) is of the view that physical distribution of produce takes places through “market linkages”. In the context of agricultural marketing (Argenti, 2000), comment that the linkage between the rural farmer and the urban consumer is done through a network of traders or intermediaries which are meant to facilitate the flow of produce between the production side (the supply) and the consumption side (the demand). In the case of mining, the artisanal small-scale miners are linked to the Central Banks in marketing their produce by gold buyers. Eaton and Shepherd (2001) find out that the relationships among producers, wholesalers and retailers is of significant role in the marketing of produce since it creates mutual trust in the marketing system.

According to Shepherd (1997), an efficient and functioning marketing system is a precondition for successful business growth. This argument is shared by (Howells, 2006) by suggesting that most firm owners and shareholders expect their businesses to grow in the normal course of events and transactional intermediaries assist in achieving this objective through improving the efficiency of a certain supply chain transaction (Wu, 2004).

In many cases, however, an intermediary have been important for growing a business through the acquisition, distribution and application of technology for new product development and business ventures that would not have otherwise occurred. This additional factor represents the major benefit of an intermediary (Howard Partners, 2001). Wu (2004) is of the opinion that an intermediary does not change the product through information collection and dissemination but creates value by improving the quality of transactions that take place. Tracey-White (2005) went further to support the opinion by Wu (2004) by arguing that intermediaries enable producers to obtain better prices leading to higher incomes as well as improving the availability of competitively priced produce to consumers. In the context of mining, intermediaries performs a number of tasks like distribution, grading and processing of minerals sourced from artisanal small-
scale miners. In Ghana, the Precious Minerals Marketing Corporation also process and value gold in addition to buying and selling for the purpose of generating foreign currency for the country (Hilson, 2001).

2.5.1.6 Improved production

According to Appiah (1998), linkages and relationships among small-scale gold buyers and small-scale miners play an important role in the production and marketing of gold produce which creates mutual trust. Tracey-White (2005) agrees arguing that a mutual relationship leads to growth and prosperity in the short to medium term. However, Eaton and Shephered (1997) are of a different view arguing that linkages in the small-scale gold mining sector might create a dependency and a monopolistic relationship between parties in addition to making it difficult for a new entrant into business, causing imperfections in the market.

2.5.1.7 Reduction in travelling costs to market

Argenti (2000) comment that cost reduction is the key to competitiveness. In the small-scale gold mining sector, costs emanates from production as well as marketing through travelling costs (Dreschler, 2001). According to Shepherd (1997), marketing costs are fundamental influences on the pricing of goods and are heavily influenced by the cost of transport. Hilson (2001) is of the view that the small-scale gold buyers reduce the travelling costs of the small-scale gold buyers through creating the simplest link in which the small-scale gold miners sell their produce directly to them in the market.

2.5.1.8 Reduction of theft in marketing

According to Noestaller (1994), regularisation of the small-scale gold buyers’ activities was the first policy towards sustenance of the small-scale mining industry in Ghana since it has allowed accountability of mineral production and control. Amankwah and Anim-Sackey (2003) points out that regularisation of operations establish trust and co-operation between buyers and small-scale
miners. Coakley (1998) comment that there was rampant smuggling and mineral theft of small-scale miners before the government enacted a piece of legislation that recognised gold buyers operations.

2.6 FACTORS INFLUENCING INTERMEDIARY GOLD BUYERS IN THE SMALL-SCALE MINING SECTOR

2.6.1 Regulatory Environment

The regulatory environment plays a key role in the success or failure of businesses a factor which prompted the government of Tanzania to revise its regulation policies in the mining sector (Coakley, 1998). Cohen (2001) concurs arguing that government regulations if not obeyed can result in fines, imprisonment or even the closing of business and no organization is immune to government regulations. In the case of gold marketing, the country’s Reserve Bank is mandated to have total control in the movement of the precious mineral along the value chain which must also be observed by the intermediaries in this sector, however, for this to be achievable there is need to be familiarized with the roles and functions of the Central Bank in an economy.

2.6.1.1 Role of the Central Bank in the Economy

A Central Bank is defined as an institution which is in charge of all monetary policy issues in a nation (Sullivan, Arther and Sheffrin, 2003). In addition, Sullivan et al. (2003) point out that a Central Bank is also known as a Reserve Bank or a Monetary Authority with its own defined roles and functions. According to Heng (2006), the roles and functions of the Central Banks have been evolving through out the years until universally accepted principles and guide lines have been accepted as the basic functions a Central Bank can play as given below:

- The lender of last resort;
- Gold reserves and foreign exchange management;
- Monetary Policy implementation and money supply control; and
- The sole buyer of gold.
The outlined roles and functions of the Central Bank in the purchasing and reservation of gold stocks in an economy also prompted the Tanzanian authorities to revise its legal and regulatory framework mainly focusing on streamlining operating licences with guaranteed security of tenure, right to trade in mineral rights as well as freedom of commercial operation (The Mineral Policy of Tanzania, 1997). Central Banks are considering gold buying as an attractive way of diversifying government debt obligations because there is no better choice since the United States dollar is weakening (www.goldcostforecast.com accessed on 12 May 2012). However, Dreschler (2001) is of the view that most developing countries legal framework is not appropriate to the needs of intermediary buyers and in situations where it is more conducive, government ministries in many of the countries do not have the capacity and resources to address their needs.

Tanzania as an example was battling rampant smuggling of minerals prior to the liberalization of its mineral policies as indicated by a World Bank funded study conducted in Tanzania (1995) which shows that about 60% of gemstones and 70 to 85% of gold produced by small-scale miners were smuggled out of the country. According to Financial Times (1999), in 1996 alone about 700 illegal brokers were operating in the country and their main task was buying of mineral commodities in mine sites and sell them to city official dealers or mineral smugglers.

The government recognized and legalized the activities of mineral brokers in 1996 through registering and issuing them with operating licences. Local trading of minerals in Tanzania from the small-scale miners is divided into three main categories namely, small brokers, mineral brokers and dealers. The small brokers usually link market services from miners to mineral brokers or dealers and the dealers sell the minerals to the Bank of Tanzania (Coakley, 1998). The new regulatory framework worked in favour of the Tanzanian government as reflected by a phenomenal growth of 51% in the small-scale mining sector in the
late 1990’s with the Bank of Tanzania realizing 13.84 tonnes of gold from intermediaries (Financial Times, 1999).

In 1998, the government of Tanzania entered into a 50-50 joint venture with a South African company called Triennex to form Meremeta Gold Buying Scheme (Coakley, 1998) as a way of buttressing its gold and precious minerals regulation and the main objective of this joint venture company is provision of operational assistance as well as marketing gold produced by small-scale miners.

In Ghana, the enactment of PNDC law of 1989 legalized the operations of small-scale miners. According to the Journal of the South African Institute of Mining and Metallurgy (1998), the law empowered the small-scale miners to sell their gold produce to authorized dealers such as the Precious Minerals Marketing Corporation (PMMC) which is the marketing agency for gold and diamonds for the Central Bank of Ghana.

However, the PMMC only buys smelted and not alluvial gold from the small-scale miners and the various types of gold have different prices as indicated below (Appiah, 1998):

- 7.75 grams or 1 pound of Unrefined amalgam gold $60
- Refined 1 pound of gold $70
- Cleaned alluvial gold (1pound) $65
- Uncleaned alluvial gold (1 pound) $60

According Hilson (2002), before the enactment of the PNDC Law 218 of 1989, there was no marketing outlet for gold and all mined gold were being smuggled out of the country into Togo, Ivory Coast, Nigeria and Europe. The legislation provides for registration, granting of gold mining licences as well as the licensing of buyers to purchase gold. PMMC have over 800 gold buying agents in the field who purchase gold from both illegal and legal small-scale producers, a move
which was deemed crucial to combat rampant smuggling and the illegal marketing of gold which has since produced favourable results.

The gold buying agents have collected over US$300 million worth of gold since the enactment of the PNDC Law 218 in 1989 from the small-scale miners and between 1989 and 1994 alone about 30,000 small-scale producers sold gold worth US$70 million to the government’s buying agency (Appiah, 1998). However, the concession owners buy unrefined gold from miners at a price lower than the current market price and the concession owner in turn refines the gold and sells it to the PMMC, the marketing agency.

According to Aryee, Ntibery and Artorkui (2002), prior to 1993, PMMC set its gold buying price at the world market rate less 3 percent for its commission and 4 percent for a Land Rehabilitation Fund. However, this was not competitive compared with that of black market dealers. The organization now set a buying price weekly at a guaranteed rate of 98% of the world market price currently hovering around US$1,600 per ounce (www.goldcostforecast.co accessed on 12 May 2012).

2.6.2 Political Environment

According to Hentschel et al. (2003), the lack of political will to create an adequate framework for legalizing the operations of small-scale miners is a factor that affects both the miners and the intermediary buyers which also have some negative impacts on the social, environmental and fiscal regimes of a country. According to Noestaller (1994), the informal marketing of precious minerals is primarily the result of inadequate government policies.

However, Ghana has managed to put in place a sound marketing framework by mandating PMMC to provide competitive rates for mined small-scale gold as a way of eliminating unacceptable work practices as well as the illicit marketing of minerals (Noestaller, 1994). Hilson (2001) is of the view that the marketing framework by PMMC of providing centrally located purchasing points within the
small-scale mining communities make it easy to provide other services like environmental management, loans, education and training to the small-scale miners.

Most third world countries are experiencing rampant smuggling of precious minerals, money laundering and financing of wars, therefore, provoking relevant authorities to outlaw small-scale mining operations (Dreschler, 2001). Anyone who buys jewellery today can no longer be sure that their purchase does not support child labour or contribute to funding of wars. According to the World Bank report (2005), minerals from the artisanal small-scale miners has been widely identified as a source of financing violent conflicts causing severe economic and social hardships amongst millions of people in third world countries.

2.6.3 Informal Grouping

The informal operations of the small-scale miners proves difficult for organised trade and other service provision a factor which is proving to be a challenge for the business of small-scale gold buyers (Hilson, 2001). Heemskerk (2001) agrees with this view arguing that most small-scale mining in Brazil occurs informally and quasi-legally resulting in production figures declared by small-scale buyers to be speculative.

2.7 CHALLENGES OF INTERMEDIARY GOLD BUYERS TO MINERS

2.7.1 Prices

The market for intermediaries in small-scale gold mining is highly contested from a business point of view. Dreschler (2002) comment that agreeing on prices with gold buyers and dealers is a challenge. Burton and Bragg (2001) confirms by elaborating that small-scale miners lack the in-house capability to perform the analysis of difficult business decisions and price negotiations which are inherent in knowledgeable advisors who can offer lower prices than the actual market price.
2.7.2 Affordability

The other barrier is that of affordability of consulting fees which may be high especially for the operations of small-scale business ventures. In the context of mining, small-scale gold buyers are in business and their operations must be profitable. However, as elaborated by Howells (2002), the major challenge faced by small enterprises is that they fail to pay the full service of qualified and experienced intermediaries like consultants, brokers and buyers due to lack of resources as well as uncertainty about value for money.

A significant issue for small enterprises is knowing when and how to access intermediary consulting services, knowing what might be on offer, how much to pay as well as how to capture value and manage the buyer-client relationship (Howells and Johnston, 2003). This statement agrees with the argument put forward by Howard Partners (2001) stressing that there is information asymmetry in relation to service requirements by the small-scale miners and the quality expectations offered by a consulting intermediary like small-scale gold buyers. In addition, checking the reputation of intermediaries as well as obtaining objective appraisals of past performance can be very difficult for a small and emerging enterprise like small-scale mining.

2.7.3 Informal Settlement

Small enterprises may not be aware that intermediary services like small-scale gold buyers exist due to the informal nature of their operations (Hilson, 2001) a situation which is so rampant especially for those firms that are not well networked or are not members of professional or business associations. In the context of artisanal small-scale miners, Hentschel et al. (2003) are of the view that government encouragement and support to form trade associations benefits the small-scale mining sector through information sharing and better coordination resulting in improved productivity.
2.8 STRATEGIES THAT CAN BE IMPLEMENTED TO IMPROVE SMALL-SCALE BUYERS’ OPERATIONS

2.8.1 What is Strategy?

Mintzberg (2001) defines a strategy as a plan with some intended course of action as well as a set of guidelines to deal with a situation. Porter (1996) is of the view that the essence of strategy is making trade-offs while choosing the best alternative. Porter (1996) further argues that performance of the strategy would depend wholly on the operational effectiveness of the business.

However, given the meaning of strategy above, the researcher is of the opinion that small-scale gold buyers can also make trade-offs from strategies such as cost-average techniques, futures and forward buying.

2.8.1.1 Cost-Average Techniques

The cost-average technique uses a basic idea of gradual and step by step buying (www.gold-buying-strategy accessed on 18 June 2012). The small-scale gold buyers can buy large amounts of gold when the prices are at their lowest and also buy lower amounts during the times when prices are high. The advantage of this technique is that it spreads out expenses evenly over time since the buyer is discouraged from spending money in a one-time purchase even if the gold price is considered to be relatively low (www.gold-buying-strategy accessed on 12 June 2012).

However, there are three important things that small-scale gold buyers must take note of regarding the timing of transactions namely; flexibility, patience and buying at low prices.

2.8.1.2 Flexibility

According to Porter (1996), the success of a strategy depends on doing many things well and not just a few at once. This requires strategic thinking and it involves intuition and creativity (Minztbeg, 2000). The small-scale gold buyers
must be flexible on the timing of the gold purchases and always buying at the lowest price (www.gold-buying-strategy accessed on 18 June 2012). However, the moment of buying gold must be based on the market trends and the news like the Federal Reserves comment. In turbulent times, the small-scale gold buyer must buy gold every month if there is a price increase and every one or two weeks if the price declines. On the flip side, small-scale buyers must buy gold every two to three months whether or not the price moves up or down.

2.8.1.3 Patience

Porter (1996) is of the opinion that one implication of strategy is that it should have a long term and not a short term horizon. In all market situations, the small-scale gold buyers are encouraged to be patient and not be discouraged by a cycle of dropping prices since history has proved that prices of gold always recover from their lows (www.gold-buying-strategy accessed on 18 June 2012). However, the times of low prices are the best to buy as gains will accrue in the long run.

2.8.1.4 Buy at low prices

To buy gold at their lowest price, small-scale gold buyers should have a look at the gold charts that show the major trends for one week, month, three months, six months and one year (www.gold-buying-strategy accessed on 18 June 2012). Kotler and Keller (2006) comment that past information search provide an overview of the current market trend. However, in times of market turbulences when the price of gold has been going down for three days or more and the general trend is a price risk, this is a good moment to purchase especially when the small-scale gold buyer is using a short-term bull market strategy (www.gold-buying-strategy accessed on 18 June 2012).

2.8.2 Gold Futures

Gold futures are simply a deal to trade gold at terms which includes prices and amounts decided now but with a settlement date in the future and the settlement
date is when the actual exchange takes place, that is, when the small-scale gold buyer pays and the small-scale miner as the seller delivers the gold (www.goldfutures accessed on 18 June 2012). The advantage of gold futures is that they provide leverage or gearing to small-scale gold buyers (Madura, 2004). For example, suppose the buyer had $5 000 to invest and if he buys gold and settle, he can only buy $5 000 worth of gold value. However, he can probably buy $100 000 of gold futures because the margin on a $100 000 future will probably be about 5 percent, that is, $5 000. However, if the underlying gold price goes up 10% the small-scale gold buyer would make $5 00 from gold but $10 000 from gold futures.

2.8.3 Forward Buying

Harrington (2006) describes a forward buy as an advance purchase of a commodity before production. In the context of mining, small-scale gold buyers can buy gold from the small-scale miners in advance. However, the major advantage of a forward buy is that small-scale gold buyers may benefit from the reduction in prices whilst the disadvantage of a forward buy is that of price risk with a chance that the small-scale miners could pay more in mining the gold than the price the small-scale gold buyer have paid as elaborated by Kingsman (2005).

However, given the nature of the small-scale mining sector characterised with lack of capital and advanced technology to optimize production, the small-scale gold buyers must adopt a strategy that inclines towards the low-cost generic strategy by Porter (1996) cited in Strickland et al. (2010) to minimize costs and maximize profits.
The conceptual framework outlines that the informality of the small-scale gold miners and lack of resources are affecting their operations. Hilson (2001) comment that the small-scale mining sector is constrained in resources. This prompted the small-scale gold buyers to intervene by playing functions of buying gold, resource provision, mediation and brokerage in an effort to improve the small-scale gold mining sector (Howard Partners, 2007). However, in doing so they also face some operational hurdles such as government regulation and politics (Hentschel et al., 2003). The diagram also show that in some countries like Ghana, the Central Bank’s gold buying agent (PMMC) is responsible for
buying gold from both the small-scale miners and small-scale gold buyers while providing monitoring as well as pricing mechanisms (Appiah, 1998).

2.10 CHAPTER SUMMARY

The literature provided in this Chapter will assist in the answering of the problem of the study. The literature was reviewed through the use of the research objectives and information contained in the literature review will be used in the discussion of the research findings in Chapter Four. Lastly, Chapter Three provides the research methodology.
CHAPTER THREE

RESEARCH METHODOLOGY

3.0 INTRODUCTION

The research methodology and data sources used are provided in this Chapter. Research design, data collection methods and procedures, target research population, sampling methods and size, research instruments and design; pretesting, validity and reliability are also outlined. Lastly, the Chapter gives an explanation regarding the analysis of data and presentation of research results.

3.1 RESEARCH DESIGN

Research is a well-defined, objective as well as a scientific analysis of factors or problems undertaken with the sole purpose of finding solutions (Zikmund, 1988). Easterby-Smith (2002) agrees by describing research design as the overall configuration of a piece of research, gathering evidence as well as interpreting it in order to provide solutions to the research question. Its conclusions are then defined and judged by a combination of proximal and some theoretical factors that shape them since they are based on researchers’ views, theories, and human values as well as data gathering methods (Zikmund, 1988).

3.1.1 Research Philosophy

There are four philosophies which a researcher can look at when conducting a research, namely; positivism, realism, pragmatism and phenomenology. Crouch and Housden (1996) state that in the field of research these research philosophies are of great significance regarding the way the study is conducted. Saunders, Lewis and Thornhill (2000) also share the same view arguing that the research philosophy affects the way the researcher conducts the research study.

3.1.1.1 Positivism

The positivist or quantitative research philosophy uses the assumption that the researcher should be in a position to give an explanation as to what causes the
observed behaviour. This approach according to Leedy (2008) is similar to the one used by natural sciences in which a researcher is regarded as independent and does not affect or be affected by the elements of the research under study. The argument of this research approach is that objective data which is justifiable statistically can be found from the research methods of the natural sciences.

According to Haralambos and Holborn (1991), the positivist philosophy assumes that human behaviour can be measured objectively the same way matter is measured in terms of temperature and weight. The advantage of this approach is that it put much emphasis on behaviour which the researcher can easily observe. The argument of this approach is that factors that are not easily observable are not of any significant value and can as well be misleading (Leedy, 1997).

3.1.1.2 Realism

According to Saunders et al. (2009), realism research philosophy gives credible data and facts which are derived from an observable phenomenon. However, the researcher can be biased by the views of the world as well as cultural experiences which may impact on the research.

3.1.1.3 Pragmatism

This type of research philosophy integrates different dimensions which can go a long way in the interpretation of data. With this philosophy, the researcher adopts both subjective and objective viewpoints (Saunders et al., 2009).

3.1.1.4 Phenomenology

The qualitative or phenomenology philosophy takes an argument that social reality is too complex, multiple and divergent (Leedy, 1997). Phenomenologists undertake the research with an analysis from the participant’s own point of view. The behaviour of human beings is defined from the participant’s own world and reality is attached to their own experience, which differs from one participant to another (Saunders et al., 2000). This philosophy argues that it is practically impossible to objectively measure any aspect of human behaviour. In other
words, human beings define their own world by categorizing it. However, the process of categorization is subjective since it depends largely on the observer’s opinion (Haralambos and Holborn, 1991).

Phenomenologists favour this research philosophy from the argument that it produces data that is rich in scope and easily understood because of its explanation which gives information containing more depth. Another advantage of this philosophy is that the research results give an understanding of the meanings employed in people’s day to day life. However, the major drawback of this research philosophy is that it produces data that can not be justified using statistical methods (Leedy, 2008).

However, for the purpose of this study, the researcher adopted the phenomenology philosophy since it produces rich data from the participant’s own experiences in a natural setting, hence suiting the case study approach. The researcher also adopted the phenomenology philosophy because it produces data that is both qualitative and quantitative (Hessey and Hessey, 1997 cited in Kevin and Tobin, 2006). Having selected the research philosophy, the researcher then chose the research approach to conduct the study within its parameters.

3.1.2 Research Approach

According to Easterby-Smith (2002), there are two types of research approaches which the researcher can choose from in conducting a research, namely deductive and inductive approaches.

Collis and Hussey (2004) are of the view that the deductive approach involves testing a theoretical proposition through the use of a research strategy designed specifically for the purpose of its testing. The deductive approach is highly structured and it also involves the development of a scientific theory with laws as the basis of explanation (Saunders et al., 2003).

Saunders et al. (2003) comment that the research can be qualified as inductive when the researcher collects data and develops a theory as a result of the data
analysis. The study results presents a model designed from the different data analysis conducted and therefore less concerned with the need to make generalization.

From the above discussion, the researcher adopted the inductive approach because it is not much concerned with generalization but data is collected to develop a theory or principles from particular cases rather than the deductive approach which offers a static methodology since it moves from theory to data.

3.1.3 Research Strategies

The research strategy is also referred to as the research design or research plan. The research strategy outlines the way data is going to be gathered such as survey, experiments, longitudinal research, cross sectional research and case study (Punch, 2005). Saunders et al. (2000) comment that research design also concern different ways of gathering data. Each one of those ways of gathering data has its own merits and demerits which the researcher must take note of and then chose the ones that suit the study being undertaken within the parameters of the adopted research philosophy.

3.1.3.1 Survey Research

Saunders et al. (2000) note that the survey method is a deductive approach that is used in the collection of data from a sizeable population in a highly economical way. Surveys can be categorized into two groups which are: exploratory and descriptive surveys.

3.1.3.1.1 Exploratory Survey

Exploratory survey seeks to give an explanation regarding the behaviour and attitudes based on gathered data at a given point in time. Saunders et al. (2000) propose that exploratory survey is a very useful approach when the researcher seeks further clarification and better understanding of the problem under study. Robson (1993) agrees by commenting that an exploratory survey seeks to
explore new ways and assist the researcher to discover and assess the case under study in a new angle that was not in existence before.

### 3.1.3.1.2 Descriptive Survey

Descriptive survey seeks to find out into the existing scenario by measuring what exists without asking why it exists (Leedy, 2008). In using the descriptive survey, the researcher can collect data through the telephone, by mail or in person. The main advantage of surveys is that a large and varied data can be collected from the current phenomenon, which can be useful for planning purposes and decision-making. However, its major weakness is that not all data from every element in the population is collected (Saunders et al., 2009).

### 3.1.3.2 Experiment

The experiment method deals with the case of cause and effect and this methodology assess cause-and-effect dynamics within the boundaries of a closed control situation (Leedy, 1997). This approach makes a comparative assessment of two given situations with the other one being altered by introducing an extraneous variable into it. According to Haralambos and Holborn (1991), the situation is reassessed after the introduction of an extraneous variable and the changes that are noted are regarded to have been caused by that introduced variable.

The main advantage of this research design is that it is very basic and simple if the researcher can change the independent variable at will. The results can also be easily analysed and sometimes a new theory is formed (Best and Kahn, 1989). The major disadvantage of experimental research method is that it requires a lot of planning which is referred to as the design of the experiment (Leedy, 1997).

### 3.1.3.3 Longitudinal Research

Longitudinal research is the capacity to study cases that the researcher finds interest on and their changes over a given period of time (Saunders et al., 2000).
Leedy (1997) assert that longitudinal research is also referred to as “developmental study” and is a descriptive type of research that usually stretches over a period of time. Bouma and Atkinson (1995) supports this argument by commenting that longitudinal studies answers the question of whether there is any change over a long period.

3.1.3.4 Cross Sectional Research

Cross sectional studies are based on the interviews conducted over a short period and as noted by Easterby-Smith, Thorpe and Lowe (1991) they often employ the survey method. In cross sectional studies, the researcher collects data from the research participants at a very short time period.

3.1.3.5 Grounded Theory

Grounded theory research is a qualitative research study that aims at deriving theory through the use of multiple stages of data collection and interpretation (Leedy, 1997). Strauss and Corbin (1994) define Grounded theory as a research methodology from the researcher’s own thinking that conceptualise data. This method is suitable to in-depth research studies of diversified cases.

3.1.3.6 Ethnography

Ethnography is a qualitative inquiry that involves an in-depth study of an intact cultural group in a natural setting. Haralambos and Holborn (1991) agree arguing that ethnography is the study of life. According to Gall, Borg and Gall (1996), ethnography is different from other forms of qualitative research because of its emphasis on:

(a) Discovering cultural patterns in human behaviour;

(b) Studying the natural settings in which culture is manifested; and

(c) Describing the perspective of members of the culture.
3.1.3.7 Case Study

Robson (1993) define the case study as the “development of detailed, intensive knowledge about a single phenomenon or a small number of related cases”. In conducting a case study, the researcher explores a single phenomenon and is bound by time and activity like an event or programme during a given period. Creswell (1994) cited in Leedy (1997), comments that a researcher “explores a single entity or phenomenon bounded by time and activity (a programme, event, process, institution, or social group) and collects detailed information by using a variety of data collection procedures during a sustained period of time”.

Punch (2005) stresses that case studies use social and anthropological field methods in a natural setting such as interviews, narrative reports and questionnaires. The case is a “bounded system” which means that there is given boundaries within which the researcher is guided from in conducting the study.

The major advantage of conducting a case study is that it sheds some light on an event or object that the researcher find interest in. Saunders et al. (2000) comment that in order for the researcher to achieve his or her intended objectives, there are a variety of ways that can be used to collect data such as document analysis; observation, interviews and questionnaires. This is supported by Gall et al. (1996) when they highlighted three purposes why some researchers favour the case study approach which are:

(a) To produce a detailed description of a phenomenon;

(b) To do possible explanations of the phenomenon; and

(c) To conduct an evaluation of that phenomenon.

However, the case study approach is criticized basing the argument on the fact that studying a small group of participants or exploring a single phenomenon does not reflect any reliability on the produced results. Another critique is that the case study approach distorts the research findings since the researcher is intensively involved in the research (Stake, 1995).
However, Churchill (1999) is of the view that research methods are interrelated and they do not exist in isolation from each other. The researcher adopted the case study approach in conducting this study because it sheds light on an event or object whilst giving the researcher an opportunity to collect data using document analysis, observation or questionnaires (Saunders et al., 2000).

Having chosen the research philosophy and the research strategy to be adopted, the researcher drew up a sample study from the population basing on the probability and non-probability sampling methods. The advantages and drawbacks of each sampling technique were taken note of by the researcher to enhance the validation of the research findings through a fair representation of the population elements under study.

3.2 RESEARCH POPULATION
The research population includes all the elements to be studied by the researcher (Wegner, 1999). However, it is not economically feasible to conduct a research from the total population, hence the selection of a sample with the same characteristics as the entire population. For the purpose of this study, the population comprise of the small-scale miners and the gold buyers in Kwekwe.

3.3 SAMPLING

3.3.1 Sample size
It is practically not feasible to conduct the research from the entire population due to elements of time as well as material and financial resources (Leedy, 2008). Ideally, a subset or a sample of the total population is gathered for statistical enquiry. However, for quality data to be obtained, the sample should allow all the population units to stand an equal chance of being selected. The sample should also be representative of the population with minimal chances of errors in data collection (Gofton and Ness, 1997). A sample can be found using mainly two methods, that is, probability and non-probability sampling (Wegner, 1999).
3.3.2 Sampling Method

3.3.2.1 Probability Sampling

The observations that are included in a sample are selected on a random basis from the population under study. In using probability sampling, all the elements of the population stand an equal likelihood of being chosen (Wegner, 1999). There are four random selection methods which are:

(a) Simple random sampling;
(b) Cluster sampling;
(c) Systematic sampling; and
(d) Stratified sampling.

3.3.2.1.1 Simple Random sampling

This method is mainly used where the characteristics of the population are regarded as the same with respect to the variable under study (Wegner, 1999). Under this technique, each item in the population has an equal likelihood of being included in the sample. According Haralambos and Holborn (1991), simple random sampling is based on the “law of averages”; therefore, the researcher requires a very large sample to get a valid representative sample. Random sampling makes use of statistical probability to ensure that the sample is representative of the population under study.

3.3.2.1.2 Cluster sampling

When using this technique, the first task is to divide the entire population into different clusters of which each given cluster has the same elements with the rest of the clusters. The clusters are then selected at random in order to get the desired sample (Wegner, 1999). Those sampling units within the selected clusters are then selected at random in order to come up with a representative sample from the population under study. The advantage of this sampling method is that it can be adopted where there is no sampling frame from which the final sample can be selected. Its major disadvantage is that of bias since the items in
the area will tend to resemble each other and the tendency of the less obvious items to be missed (Moser and Kalton, 1984).

3.3.2.1.3 Systematic Sampling

The elements being selected do not have an equal chance of being selected from the population but are selected at given intervals measured in time, order and space (Leedy, 1997). The advantage of this technique is that there is order and consistence because once the first observations are selected; the rest will be selected at a uniform interval. The disadvantage of systematic sampling is that if by mischance there happened to be some pattern in the frame that coincide with the sampling interval, the sample would result in being biased (Wegner, 1999).

3.3.2.1.4 Stratified Sampling

Under this sampling technique, the population being studied is divided into different segments, which are also known as strata (Wegner, 1999). The characteristics of the elements in the stratum are regarded as the same and then a specific number of elements are selected at random. This method of selecting a sample is effective since it allows the researcher to control the variables that are regarded as important (Haralambos and Holborn, 1991). Another advantage of stratified sampling technique is that of lessening the possibility of one-sidedness.

However, the disadvantages of this sampling technique is that it requires a very small sample size to ensure that its representative of the whole population. Even if the researcher has a readily available sampling frame, the chances are very high that it may not contain the information that is required to divide the population into groups (Wegner, 1993).

3.3.2.2. Non-Probability Sampling

This sampling method does not use randomness in selecting the observations from the population (Haralambos and Holborn, 1991). Non-probability sampling results in an unknown element from the total population. It is very difficult to
have an application of statistical inferences on the characteristics of the population under this sampling method, hence the high chances of data which is unreliable. The researcher has discussed four non-random sampling methods for the purpose of this study which are:

(a) Judgmental;
(b) Convenience;
(c) Quota sampling; and
(d) Snowball.

3.3.2.2.1 Judgmental sampling

Personal judgment is used by the researcher in order to come up with a representative sample from the population (Leedy, 2008). According to Burgess (1984), judgmental sampling respondents may be selected by the researcher basing on his or her selection criteria such as age, sex and occupation or special experience that endows them with special knowledge. The major advantage of judgmental sampling is that replication is avoided as the researcher selects respondents who are willing and available to cooperate with the research study. The major disadvantage with this sampling method is that there are high chances of bias since the selection criteria is not scientific and accurate (Wegner, 1999).

3.3.2.2.2 Convenience sampling

This sampling method calls for the convenience of the researcher and does not represent the population under study (Leedy, 2008). It is mostly used where the population under study is not clearly defined and the sampling units not very clear (Ringrose, 1986).

3.3.2.2.3 Quota sampling

A quota of observations is collected from each segment after the researcher has divided the entire population under study into different segments (Wegner, 1993). The advantage of quota sampling is that it can be used where the cost of a random sample is prohibitive (Moser and Kalton, 1984). However, its
disadvantage is that the interviewer has a predetermined number or quota and once that quota is filled, the work is regarded as finished (Leedy, 2008). It is also very subjective and imprecise. The researcher may have to ask some questions of a personal nature in order to enquire whether the respondents meet the required characteristics of a quota group on which the information is wanted for (Haralambos and Holborn, 1991).

3.3.2.4 Snowball Sampling

According to Saunders et al. (2003), snowball sampling is another version of judgmental sampling and it seek to reach a small and specialized population of people with specific skills and knowledge in new management or technology competency. Snowballing is a very specialized type of sampling and is usually used when other methods are not practical (Haralambos and Holborn, 1991). The major disadvantage with this type of sampling is that it is not scientific and accurate resulting in a lot of biases.

Sampling Method Applied

Having discussed the strengths and weaknesses of the two main sampling methods, the researcher used the stratified sampling technique which falls under probability sampling method for the purpose of this study in selecting the sample size because it captures all the categories of the population (small-scale gold miners, formal and informal gold buyers as well as contractors) under study, therefore enhancing the validity and reliability of the research results.

3.4 SOURCES OF DATA

A researcher can obtain data from two main sources; namely primary and secondary in conducting the research (Haralambos and Holborn, 1991).

3.4.1. Primary Data

This data is gathered for the first time in order to solve the problem at hand (Wegner, 1999). This type of data is very expensive to gather even though it is
quite useful in formulating structured and unstructured questions (Creswell, 2003). Under primary data source, the researcher can collect data using the questionnaire research instrument.

3.4.2. Secondary Data
The researcher gathers this data for the purpose other than the current one at hand (Haralambos and Holborn, 1991). The researcher can collect data using official statistics, literature and government reports. The major advantage with this data type is that it can be gathered quickly and at a lower cost as compared to using primary data (Aczel and Sounderpandion, 2002). However, the major drawbacks of using this type of data are that the data may not be useful for the sole purpose and objectives of the researcher. Another disadvantage is that the data is prone to manipulation by the person who would have conducted that research (Wegner, 1999).

Therefore, for the purpose of this study, the researcher used both primary and secondary data to enhance the validity and reliability of the research results. Primary data was sourced from the study sample using the structured interview guide. Secondary data sources from the relevant literature regarding the small-scale mining sector and gold buyers were used.

3.5 DATA COLLECTION INSTRUMENTS

3.5.1 Questionnaires
A questionnaire is a research instrument that a researcher uses to gather primary data and it consists of a list of questions that are pre-set (Wegner, 1999). Stuart and Wayne (1996) describe a questionnaire as a list of questions which the respondents are required to answer from the study sample.

3.5.1.1 Design of the Questionnaire
The principal concern in the design of the questionnaire is clarity with clearly laid out questions and their associated responses easily matched to the questions
(Caswell, 1991). The researcher must design the questionnaire in such a way that it attracts a high response rate from the study sample through laying out the questions in a sequential order so that they align with the research topic.

The main advantages of a questionnaire according to Haralambos and Holborn (1991) are that:

(a) It is relatively cheap in terms of costs as well as convenient to the researcher and it can be easily administered to a large group of research participants at the same time.

(b) The results of the research can easily be analysed efficiently and quickly through the use of computers.

The questionnaire method has its own demerits:

(a) There are some areas, which need further clarification by the researcher resulting in respondents not divulging some information.

(b) There is also a high chance of poor response rate, as people naturally do not want to fill in the questionnaire for privacy sake.

3.5.2 Observations

According to Saunders et al. (2009), observation method is mainly concerned with finding out the meanings that people associate with their actions as well as the confluences of those actions. Robson (2002) is of the view that observation involves the systematic recording, analysis and interpretation of the people’s behaviour which is time consuming; as a result the accessibility of many organizations can be a huge task. Moser and Kalton (1986) also comment that difficulties are encountered in obtaining a representative sample for the observation of behaviour.
3.5.3 Focus Group Discussion

This is a group discussion interview method that explores a particular topic through interactive sharing of ideas amongst participants (Kotler, 2000). Saunders et al. (2009) agrees commenting that a focus group discussion encompasses the views of the participants through group interaction focusing on a particular issue.

3.5.4 Interviews

Torrington (1991) defines an interview as a discussion which is purposeful between two or more people. Leedy (1997) comment that interviews can assist the researcher in gathering valid and reliable data since it is a primary data collection method which involves direct questioning. Interviews represent a compromise between more structured research methods like questionnaires and the more in-depth methods such as participant observation (Haralambos and Holborn, 1991). However, in collecting data using interviews, three approaches should be noted by the researcher, namely; telephone surveys, postal surveys and personal interviews.

According to Saunders et al. (2009), interviews can be classified as structured, semi-structured or unstructured. The advantage of the interview method is that it is possible to produce statistical data from interviews as well as replicate the research and check results. Haralambos and Holborn (1991), comment that the major drawback of the interview method is that responses given may not be accurate and may not reflect the real behaviour whilst interviewees may also be influenced by the researcher’s presence.

3.4.5.1 Structure of the interview guide

The researcher structured the interview guide into two parts, the first section asked about the information concerning the small-scale miners towards the small-scale gold buyers while the second part explored the contribution and benefits that the small-scale gold buyers are providing to the small-scale miners.
in Zimbabwe. Lastly, the final section in part two inquired about the best options that can be adopted by the small-scale gold buyers in Zimbabwe.

3.4.5.2 Pre-testing of the interview guide

The interview guide was pre-tested on a sample of ten (five small-scale miners and five small-scale gold buyers) in the area of Kwekwe. The pre-test was done through structured interviews. According to Gilbert and Churchill (1998), a pre-test is done to clear ambiguous questions as well as to ascertain the reliability of the chosen instrument.

3.4.5.3 Interview Administration

The researcher administered the interview randomly to the small-scale miners and gold buyers at their areas of operation in Kwekwe whilst retaining the interview guide after the interview.

For the purpose of this study, the researcher used the structured interview method as the research instrument in gathering primary data since it involves direct questioning given the illiteracy of most of the small-scale miners and it is also possible to produce statistical data from the interviews as well as replicate the research and check the results (Saunders et al., 2009). The structured interviews were also used on small-scale gold buyers due to their mobility, hence lacking enough time to sit down and complete the questionnaire.

3.6 DATA ANALYSIS AND INTERPRETATION

The data will be analyzed using the statistical package for social sciences software (SPSS), frequencies, means and percentages. Howard and Sharp (1993) define analysis as the ordering and structuring of data to produce knowledge. Caswell (1991) state that there are three principal methods of presenting data namely; tables; graphs; diagrams and charts.

Charts are used to indicate trends in the variables against the given time horizon with pie charts showing proportion of occurrences whilst tables summarises
collected data before presenting it in a graphical format. The presentation of information in graphs and charts enable the comparison and projection of the situation to be easy since data can only be valuable to the stakeholders if it is communicated effectively.

3.7 VALIDITY AND RELIABILITY

Robson (1993) is of the view that the quality of data at every stage of the research needs to be assured to ensure that the final research satisfies stakeholders both in terms of the objectives and the resources used. The responses from the pilot questions were incorporated in the final questionnaire to improve the quality of captured data. The researcher used more closed-ended than open-ended questions in the questionnaire.

Reliability and validity of data were identified as quality issues in using the questionnaires. According to Easterby-Smith et al. (2002), reliability is mainly concerned with whether other researchers would reveal information of a similar nature. Validity on the other side focuses on the authenticity of the research results (Gill and Johnston, 1997).

3.8 ETHICAL ISSUES

The researcher ensured that confidentiality was maintained upon interviewing the respondents with assurance given that the study was for academic purposes only. Fritzsche (1997) confirms that a correct ethical behaviour develops trust amongst people. Burns (2000) explores that participants must understand the purpose of research without cohesion. This allowed the respondents to be willing to be part of this study.

3.9 RESEARCH LIMITATIONS

The researcher encountered the challenges of limited time since the research was carried out in a space of six months resulting in some limitations of time to adequately prepare for carrying out the research. The study was also focused on the city of Kwekwe due to the geographical separation of the small-scale miners
and gold buyers across the country which requires more financial and human resources.

3.10 CHAPTER SUMMARY

This Chapter looked into the research methodology and the research philosophies that are used in the field of research by either the phenomenologist (qualitative) or the positivist (quantitative) researchers. The case study strategy, data collection method, research population and sampling procedure as well as the data analysis methods were also discussed.
CHAPTER FOUR
RESEARCH FINDINGS AND DISCUSSION

4.0 INTRODUCTION

This Chapter presents the research findings and analysis of results obtained from the study sample using the interview guide research instrument. The research findings are also supported with relevant literature reviewed in Chapter two.

4.1 RESPONSE RATE

A sample of 120 participants (60 small-scale gold miners and 60 small-scale gold buyers) was selected from Kwekwe area for the study and one on one interviews were conducted to all the participants. The researcher obtained a 100 % response rate from the surveyed participants as all the 120 participants responded to all questions during the interview. The analysis of the results is in two sections. First is for small-scale gold miners and then small-scale gold buyers.

4.2 SMALL-SCALE GOLD MINERS

4.2.1 Demographic aspects

The researcher sought to determine the small-scale gold miners’ age groups during the interview. The findings are presented in table 4.1

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 18years</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>18-25years</td>
<td>13</td>
<td>22%</td>
</tr>
<tr>
<td>26-35years</td>
<td>28</td>
<td>46%</td>
</tr>
<tr>
<td>36 years and above</td>
<td>19</td>
<td>32%</td>
</tr>
</tbody>
</table>
Table 4.1 shows that the majority of respondents fall in the 26-35 years age group with 46% followed by those in the 36 years and above age group with 32%. Those in the 18-25 years age group are the minority with 22% of respondents and there were no responses from those with 18 years and below. This shows that the majority of respondents are still active and productive which goes well with the physical demands of small-scale gold mining operations. Lack of responses from the below 18 years age group implies that there is no child labour in the small-scale gold mining sector in Kwekwe area since this age group is deemed to be at school.

4.2.1.2 Gender

Figure 4.1 shows that 53% of respondents are males followed by 47% female respondents. This indicates that the majority of small-scale gold miners in the Kwekwe gold mining area are males which goes to show that it is a male dominated sector which is expected given the physical and hazardous nature of operations.

Figure 4.1 Gender of respondents of small-scale miners

Figure 4.1 shows that 53% of respondents are males followed by 47% female respondents. This indicates that the majority of small-scale gold miners in the Kwekwe gold mining area are males which goes to show that it is a male dominated sector which is expected given the physical and hazardous nature of operations.
4.2.1.3 Legality of Operations

The researcher sought to find out whether the small-scale gold miners are complying with the laws of the country in their operations.

Figure 4.2 Legality of operations

Figure 4.2 shows that 60% of respondents are operating legally whilst 40% are conducting their business outside the requirements of the law. This indicates that the majority of small-scale gold miners in Kwekwe gold mining area have licenses.

4.2.1.4 Frequency of Visit

This question sought to find out how often the small-scale gold buyers visit the small-scale gold miners place of operation. The findings are presented in figure 4.3.
Figure 4.3 Frequency of visit by the small-scale gold buyers at the small-scale gold miners’ place of operations

Figure 4.3 reveals that eight percent of respondents said the small-scale gold buyers visit them on a weekly basis and 92% declined, 18% confirmed the after two-weeks visit and 18% said no, 58% agreed to the monthly visit and 42% were in disagreement while 18% said yes to other and 82% said no. This implies that the majority of small-scale gold miners are accessing the small-scale gold buyers on a monthly basis.
4.2.1.5 Average Monthly Income

From this question, the researcher sought to find out the average monthly income the small-scale gold miners get in their operations.

![Bar chart showing income distribution](image)

**Figure 4.4 Average Income per month**

Figure 4.4 reveals that 62% of respondents earn income which is above US$500 per month, followed by 28% who earn between US$301-US$400 monthly while 10% get between US$401-500 per month. There were no responses from those earning below US$200 and US$201-300 per month respectively. This indicates that the small-scale gold mining activity is a serious business which can sustain families to make a living from.
4.2.1.6 Highest Level of Education

Figure 4.5 Educational levels

Figure 4.5 reveals the highest educational levels of respondents. From the targeted respondents, 25% attained ordinary level, 23% achieved Zimbabwe Junior Certificate, 22% completed Grade 7, 17% have advanced level, 10% obtained diplomas and only three percent attained degrees. This indicates that the majority of small-scale gold miners lack the managerial and technical capability to drive their businesses to growth. The educated fear the cumbersome work involved in the small-scale gold mining.
4.2.2 Functions of gold buyers in the small-scale mining sector

4.2.2.1 Functions of small-scale gold buyers

Figure 4.6 Functions of small-scale gold buyers to small-scale miners

The research sought to find out the functions the small-scale gold buyers are playing in the small-scale gold mining sector and the findings are presented in figure 4.6. From the targeted respondents 100% confirmed the function of a buyer and there were no respondents who denied that function. This indicates that the small-scale gold buyers are playing the function of a buyer to the operations of small-scale gold miners in the gold mining area of Kwekwe. Bordia (1998) is of the view that the important function of gold buyers cannot be over emphasised as they provide an efficient link between the small-scale miners and the Central Bank. Figure 4.6 shows that from the targeted respondents, 33% agreed to the consultation function and the majority 67% denied. This indicates that the small-scale gold buyers are partially providing the consultation function in the small-scale gold mining sector in Kwekwe area. According to Massey and Walker (1999), the assignment undertaken by a consultant in resolving the small-
scale miners’ challenges is most likely to be successful if appropriate roles are aligned with their expectations.

Figure 4.6 reveals that 50% of respondents agreed to the function of contracting and an equal 50% where in disagreement. This implies that the small-scale gold miners are getting some contracts in mining gold from the small-scale gold buyers in the Kwekwe gold mining area. Tracey-White (2005) elaborate that the buyer provides capital and extension advice in addition to guaranteeing purchasing the produce. Appiah (1998) comment that the contract scheme was popular in Ghana given lack of access to finance and equipment by the small-scale miners.

Figure 4.6 also reveals that 52% of respondents said yes to the function of a broker and 48% said no to that function. This indicates that the majority of small-scale gold buyers are providing the function of a broker in the operations of small-scale gold miners in the gold mining area of Kwekwe. According to Davenport and Prusak (1997), a broker brings buyers and sellers together. Howells (2002) is of the view that most investment finance and supply of equipment in the mining sector is done by a broker.

The research findings in figure 4.6 reveals that 75% of respondents agreed to the mediation function while 25% denied that function. This shows that the majority of small-scale gold miners are getting assistance of a mediation nature from the small-scale gold buyers in the gold mining area of Kwekwe. In the surveying of gold deposits function, figure 4.6 reveals that 27% of respondents agreed to this function and the majority 73% said no. This implies that the majority of small-scale gold miners are not getting their gold deposits surveyed by the small-scale gold buyers. This contradicts Amankwah and Anim-Sackey (2003) arguing that small-scale mining cannot survive on the basis of current mineral reserves without the assistance of surveyors in mineral exploration.

Figure 4.6 shows that 32% of respondents said yes to the tributer arrangements function by the small-scale gold buyers and 68% declined. This shows that most
of the small-scale gold miners in the Kwekwe mining area are not getting tributer arrangements from the small-scale gold buyers. This also agrees with Bannock Consulting (2001) commenting that small-scale gold miners are usually disadvantaged when it comes to pricing by the claim holders.

4.2.3 Benefits brought by gold buyers to small-scale gold miners

4.2.3.1 Nature of benefits

Figure 4.7 Nature of benefits

Figure 4.7 reveals the findings on the nature of benefits the small-scale gold miners are getting from the small-scale gold buyers. From the targeted respondents, 68% agreed to access equipment and 32% said no. This indicates that the majority of small-scale miners are having access to the small-scale gold buyers’ mining equipment. Howells and James (2001) is of the opinion that outcome benefits occur through fulfilling technology and knowledge requirements. Figure 4.7 also reveals that out of the surveyed respondents, 100% agreed to pricing discovery as a benefit from the small-scale gold buyers and there were no respondents who disputed this benefit. This agrees with
Burton and Bragg (2001) arguing that middlemen exert a profound influence on pricing decisions in the market.

4.2.3.2 Forms of Payment

The research sought to find out the methods of payment the small-scale gold miners are receiving from the small-scale gold buyers. Figure 4.8 presents the findings.

![Figure 4.8 Type of payment](image)

From the targeted respondents, figure 4.8 shows that 100% are not being paid through real time gross settlement and in cheque form, 32% agreed to be paid cash upfront and 68% said no, 100% are being paid cash on delivery while there were no responses on those who denied. This shows that cash is the major method of payment the small-scale gold miners are receiving for their gold produce.
4.2.3.3 Improvement in operations

This question sought to find out whether the small-scale miners are getting any operational benefit from the participation of small-scale gold buyers. The findings are presented in figure 4.9.

Figure 4.9 Operational improvement

Figure 4.9 shows that out of the targeted respondents, the majority 97% confirmed getting improvement in their operations and only a minority three percent declined. This indicates that the majority of small-scale gold miners’ operational performance has improved. Intermediaries influence the performance of businesses as well as add value along the chain through playing a critical role as innovation carriers and knowledge sources (OECD, 2006).
4.2.3.4 Marketing benefits

Figure 4.10 Operational benefits of the small-scale gold miners

Figure 4.10 reveals that out of the targeted respondents, 100% disagreed to other benefits and there were no respondents that agreed, 15% declined to reduction of theft in marketing and 85% said yes. This implies that the majority of small-scale gold miners have benefited from reduction of theft in marketing in the small-scale gold mining area of Kwekwe. Coakley (1998) comment that the enactment of legislation that recognised the operations of small-scale gold buyers helped in combating smuggling and theft of minerals in Tanzania.

Figure 4.10 also shows that 25% of respondents said no to reduction in travelling costs to market while 75% confirmed this benefit. This indicates that the majority of small-scale gold buyers have experienced some reduction in travelling costs to market their gold produce in the area of Kwekwe. The reduction in travelling costs results agrees with Hilson (2001) in that the simplest link is where small-scale gold miners sell their produce directly in the market which assists in marketing costs reduction.
4.2.3 Contributions of gold buyers in the operations of small-scale gold miners in Zimbabwe

4.2.3.1 Buyers of produced gold

The researcher sought to find out who buys the gold produced by the small-scale gold miners. The findings are presented in figure 4.11.

![Figure 4.11 Buyers of gold produced by the small-scale gold miners](image)

Figure 4.11 reveals 100% of respondents said that their gold produce were purchased by the small buyers and there were no responses on those who sold to large and other buyers. This reveals that all gold produced by the small-scale gold miners in the area of Kwekwe are being bought by the small-scale gold buyers. Kotler (2008) elaborate that intermediaries are specialists in marketing and selling products since they have contacts and expertise which allows greater sales to be achieved.
4.2.3.2 Commitment to small-scale mining operations

Figure 4.12 Commitment of small-scale gold buyers towards the small-scale miners’ operations

Figure 4.12 shows that 70% of respondents said small-scale gold buyers are committed to their operations while 30% declined their commitment. This indicates that the majority of small-scale gold miners are getting some commitment to their mining activities from small-scale gold buyers. Gandhi (2006) agrees suggesting that intermediaries often successfully develop standards which cater for the needs of clients in areas like marketing, finance and production.
4.2.3.3 Rating of treatment

Figure 4.13: Rating of treatment the small-scale gold miners get from gold buyers

Figure 4.13 reveals that there were no responses who rated the treatment as excellent, three percent said it is very good, 57% viewed it as good and 40% gave a fair treatment. This indicates that the treatment the small-scale gold miners are getting from the small-scale gold buyers is good. Eaton and Shepherd (2001) find out that the relationships among producers, wholesalers and retailers is of significant role in the marketing of produce since it creates mutual trust in the marketing system.
4.2.3.4 Period in gold mining and selling

Figure 4.14 Gold mining and selling period by the small-scale miners

Figure 4.14 shows that there were no responses on those who have mined and sold gold for less than a year, five percent said they sold for a period between 1-2 years, 28% between 2-3 years and the majority have sold for a period over 3 years. This implies that the majority of small-scale gold miners have been in this business long enough to be experienced.

4.2.3.5 Average gold sales before and after assistance from gold buyers

The research wanted to confirm whether the small-scale gold miners operations has improved or not through getting average gold sales before and after assistance from small-scale gold buyers. The findings are presented in tables 4.2 and 4.3 respectively.

Table 4.2: Gold sales before getting assistance

<table>
<thead>
<tr>
<th>Year</th>
<th>Frequency</th>
<th>Grams sold before</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>19</td>
<td>35</td>
<td>32%</td>
</tr>
<tr>
<td>2007</td>
<td>18</td>
<td>60</td>
<td>30%</td>
</tr>
<tr>
<td>2008</td>
<td>23</td>
<td>60</td>
<td>38%</td>
</tr>
</tbody>
</table>
Table 4.2 reveals the targeted respondents. In 2006 32% sold 35 grams of gold, 30% sold 60 grams in 2007 and 38% sold the same quantity as in 2007 of 60 grams.

Table 4.3: Gold sales after getting assistance

<table>
<thead>
<tr>
<th>Year</th>
<th>Frequency</th>
<th>Grams sold after</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>13</td>
<td>120</td>
<td>22%</td>
</tr>
<tr>
<td>2010</td>
<td>21</td>
<td>150</td>
<td>35%</td>
</tr>
<tr>
<td>2011</td>
<td>26</td>
<td>200</td>
<td>43%</td>
</tr>
</tbody>
</table>

Table 4.3 shows that in 2009 22% of respondents sold 120 grams, 35% confirmed selling 150 grams in 2010 and 43% sold 200 grams of gold in 2011. This indicates that the majority of small-scale gold miners operations improved as confirmed by the quantities of gold sold in the comparative years.

4.2.4 Challenges faced by small-scale gold buyers

4.2.4.1 Barriers from effective operations

Figure 4.15 Barriers in the small-scale gold miners operations
Figure 4.15 reveals that 100% of respondents confirmed prices as a barrier and there were no respondents who denied it, 93% said yes to affordability of charges and seven percent said no, 52% agreed to informal settlement as a barrier while 48% disputed. This implies that the majority of small-scale gold miners are being affected by prices and affordability of charges from the small-scale gold buyers. Howells (2002) comment that affordability of charges affects the small-scale miners to access qualified and experienced intermediaries like consultants and brokers due to lack of financial resources. In the informality of the small-scale mining, Hentschel et al. (2003) encourage the government to create trade associations to enhance information sharing and better coordination to increase productivity.

4.2.4.2 Recommendations for operational effectiveness

The researcher sought to find out what the small-scale gold buyers need to be implemented for their operations to improve. The findings are presented in figure 4.16.

Figure 4.16 Recommendations for operational improvement in gold buying

From the targeted respondents, figure 4.16 reveals that 45% are in need of loans and equipment, 20% recommended training, another 20% want to get fair prices
and 15% cited formalization of operations. This implies that the majority of small-scale gold miners require loans, equipment and training to improve their work. This agrees with Dreschler (2002) arguing that small-scale miners mostly lack financial capital, equipment as well as expertise to run their operations.

4.3 SMALL-SCALE GOLD BUYERS

4.3.1 Functions of small-scale gold buyers in the small-scale gold mining sector

4.3.1.1 Functions in the small-scale gold mining sector

Figure 4.17 Small-scale gold buyers and their functions

Figure 4.17 findings shows that, 100% of respondents said they are playing the buying and selling function and no responses disputed, 35% confirmed the technology transfer function and the majority 65% said no, 32% agreed to the surveying of gold deposits and 68% denied providing that function, 98% said yes to the resource provision function and only two percent were in disagreement. This implies that the majority of small-scale gold buyers are providing buying and selling services and providing resources in the small-scale gold mining area of Kwekwe. Singer (1999) comment that intermediaries support the matching of
customers requirements and sellers offerings. According to the Journal of South African Institute of Mining and Metallurgy (1998), small-scale mining is characterised by inadequate capital and inappropriate technology.

4.3.1.2 Destination of purchased gold

According to the Journal of South African Institute of Mining and Metallurgy (1998), small-scale mining is characterised by inadequate capital and inappropriate technology.

4.3.1.2 Destination of purchased gold

Figure 4.18 Destination of purchased gold from small-scale miners

Figure 4.18 shows that from the targeted respondents, all 100% confirmed that Fidelity Printers and Refiners is where they sell their gold to. There were no responses on those selling to the black market and other markets. This implies that the majority of small-scale gold buyers deliver their gold to Fidelity Printers and Refiners an arm of the Reserve Bank of Zimbabwe. Appiah (1998) comment that the Precious Minerals Marketing Corporation (PMMC) have over 800 gold buying agents in the field who purchase gold from both illegal and legal small-scale miners to combat side marketing in Ghana.
4.3.1.3 Regulatory role of the RBZ

This question sought to find out the regulatory role of the RBZ in the small-scale gold mining sector. The findings are presented in figure 4.19.

![Bar chart showing responses to the regulatory role of the RBZ](chart.png)

**Figure 4.19 Regulatory role of the RBZ**

Figure 4.19 shows that 17% of respondents strongly agree, 23% agree and there were no responses that were neutral, 30% were in disagreement while another 30% strongly disagreed. This indicates that the majority of small-scale gold buyers were in disagreement with the regulatory role of the RBZ in the small-scale gold mining sector. Dreschler (2001) comment that most developing countries legal framework is not appropriate to the needs of the intermediary buyers and in situations where it is conducive, government ministries do not have the capacity and resources to address their needs.
4.3.2 Benefits brought by gold buyers to small-scale gold miners

4.3.2.1 Benefits of small-scale gold buyers

Figure 4.20 Benefits from gold buying

Figure 4.20 reveals that 100% of respondents agreed that they have benefited from small-scale gold buying operations and there were no responses on those that disputed. This shows that small-scale gold buying is a business with some benefits. In Ghana, the gold buying agents collected over US$300 million worth of gold in 1989 from the small-scale miners (Appiah, 1998).
4.3.2.2 Strategies employed

![Graph showing strategies employed]

**Figure 4.21 Operational Strategies**

Figure 4.21 shows the findings from the targeted respondents, 15% said no to forward buying as an operational strategy and the majority 85% agreed, 100% said they do not use gold futures as a technique and there were no responses on those that use it, 100% confirmed using the cost-average techniques as a strategy and no respondents disputed. This implies that the majority of small-scale gold buyers are using forward buying and cost-average techniques in their operations. The major advantage of forward buying strategy is that of benefiting when prices increase, in such a situation the buyer will be safe (Kingsman, 2005) while using the cost-average technique result in spreading out expenses ([www.gold-buying-strategy](http://www.gold-buying-strategy) accessed on 12 June 2012).
4.3.3 Contributions of gold buyers in the operations of small-scale gold miners in Zimbabwe

4.3.3.1 Quantities of gold being bought

Figure 4.22 Quantities of gold purchased

Figure 4.22 reveals that there were no respondents buying gold below 50 grams per month, eight percent between 50-100 grams, 42% between 101-200 grams and 50% purchased above 200 grams monthly. This shows that the majority of small-scale gold buyers are buying 100 grams of gold and above in the small-scale gold mining area of KweKwe.
4.3.3.2 Cooperation and growth

Figure 4.23 Cooperation and growth

From the targeted respondents, figure 4.23 reveals that 100% agreed that cooperation of small-scale gold miners is contributing to the growth of this sector and no respondents disputed. This indicates that cooperation by the small-scale gold miners to gold buyers is contributing to the growth of the small-scale gold miners in the area of Kwekwe. Howells and James (2001) argue that intermediaries undertake integration roles through bringing people together with diverse capabilities into strategic alliances and collaborations in order to capture market opportunities.
4.3.3.3 Challenges being addressed

Figure 4.24 Operational challenges

Figure 4.24 shows that 93% of respondents are providing capital and seven percent said they are not, 33% agreed to provision of technology and 67% disputed, 100% said yes to the facilitation of gold marketing and there were no responses from those who said no. This implies that the majority of small-scale gold buyers are addressing the challenges of capital and marketing constraints in the small-scale gold mining sector. Dreschler (2001) comment that small-scale miners’ operations lack formal markets as well as capital to record meaningful growth.

4.3.4 Factors that influences the role played by small-scale gold buyers’ in the small-scale gold mining sector

The researcher sought to find out the factors that influences the role played by small-scale gold buyers in the small-scale gold mining sector. The findings are presented in figure 4.25.
4.3.4.1 Impediments to operations

Figure 4.25 Factors affecting operations

Figure 4.25 shows that from the targeted respondents, 97% agreed to government as an impediment and only 3 percent declined, 65% said the political environment is a constraint and 35% disagreed, the majority 85% confirmed the informality of the small-scale miners as an impediment and only 15% said no. This implies that the majority of small-scale gold buyers are being hampered by government regulation, political environment and the informality of the small-scale miners in conducting their business. The study results agree with Coakley (1998) in that the regulatory environment plays a key role in the success or failure of a business and on the informality of small-scale miners, Hilson (2001) comment that the informal operations of small-scale miners proves difficult for organised trade.
4.3.4.2 Best options to be implemented

This question sought to find out what the small-scale gold buyers require for them to improve their gold buying operations. The findings are presented in figure 4.26.

![Diagram of options](image)

**Figure 4.26 Recommendations for work improvement**

Figure 4.26 reveals that out of the targeted respondents, 32% wanted improvement of pricing structure by Fidelity, 15% required to be paid on time, 20% recommended formalisation of small-scale gold miners activities, 18% cited the establishment of gold buying centres and 15% wanted the setting up of a small-scale gold buying board. This implies that the majority of small-scale gold buyers want fair prices from Fidelity, formalization of small-scale miners and setting up of a small-scale gold buying board to operate effectively in the area of Kwekwe. According to Noestaller (1994), Ghana revised its regulation policy towards small-scale mining by formalising operations and crafting a sound marketing framework that mandates PMMC to provide competitive prices resulting in the elimination of illegal marketing of gold.
4.4 COMPARISON OF RESULTS

4.4.1 Functions of small-scale gold buyers

Comparison of study results from the two groups of respondents (small-scale miners and small-scale gold buyers) shows that the major functions of small-scale gold buyers like facilitation of marketing, resource provision and financier are agreeing while surveying of gold deposits and tributer arrangements are disagreeing. Bordia (1998) comment that the important function of gold buyers cannot be over emphasised as they provide an efficient link between the small-scale miners and the central bank.

4.4.2 Nature of benefits

The study results comparison shows that pricing discovery and access to equipment are agreeing as benefits to the small-scale miners while provision of mining expertise disagree to both groups of respondents. Howells and James (2001) comment that outcome benefits occur through fulfilling knowledge and technology requirements.

4.4.2.1 Operational Improvement

Comparison of research results reveals that the operations of both the small-scale gold miners and small-scale gold buyers have improved and there is no disagreement. According to OECD (2006), intermediaries influence the performance of businesses as well as add value along the chain by playing some roles as innovation carriers and knowledge sources.

4.4.3 Contributions of small-scale gold buyers

The research results comparison shows that there is an agreement of 100 grams of gold and above which the small-scale gold miners have been mining and selling and what the small-scale gold buyers have been buying.
4.4.4 Operational challenges

Comparison of study results shows that informality of the small-scale gold mining sector is agreeing as an operational challenge to both the small-scale gold miners and small-scale gold buyers while affordability of charges is disagreeing. Hentschel et al. (2003) encourages the government to create trade associations in the small-scale mining sector to enhance information sharing and better coordination for enhancement of productivity. According to Howells (2002), lack of resources affects the small-scale miners to access qualified and experienced intermediaries.

4.4.5 Recommendations for operational effectiveness

The comparison of research results reveals that formalisation of small-scale gold mining operations and getting fair prices are agreeing as necessities for operational effectiveness while training assistance and the establishment of gold buying centres are disagreeing to both the small-scale gold buyers and small-scale gold miners. Hilson (2001) is of the view that the small-scale mining sector is hampered by the informality of operations which the governments can rectify by relevant policy interventions.

4.5 CHAPTER CONCLUSION

This chapter presented the research results and the findings are also supported by the reviewed literature in chapter two. The next chapter is going to give the research conclusions and recommendations.
CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

5.0 INTRODUCTION

This chapter highlights the conclusions drawn from the research and the recommendations given the analysis of the findings in chapter four. The research recommendations and areas of further study are also outlined in this chapter.

5.1 Conclusions

The following conclusions are made basing on the role of small-scale gold buyers to artisanal small-scale (ASMs) gold miners in Kwekwe.

5.1.1 General Information on Kwekwe ASMs

The research concludes that the majority of ASMs are males in the 26-35 years age group with low levels of education. The study also concludes that the majority of ASMs have operating licences and earning over US$500 average monthly income.

5.1.2 Functions of gold buyers in the small-scale gold mining sector

The study concludes that the functions of small-scale gold buying, resource provision and financier are dominant. It was also concluded that surveying of gold deposits and tributer arrangements are not being done on a major scale. The research also concluded that Fidelity Printers and Refiners is the final buyer of gold bought by the small-scale gold buyers in Kwekwe. It is further concluded that the Reserve Bank of Zimbabwe is not effectively playing its regulatory role to the growth of the small-scale gold mining sector.

5.1.3 Benefits brought by gold buyers to small-scale gold miners

It was concluded from the small-scale gold miners that pricing discovery and access to marketing and equipment are the major benefits the small-scale gold
buyers have brought to the operations of ASMs in Kwekwe area. The research also concluded that cash on delivery and cash upfront are the main forms of payment by the small-scale gold buyers. The study also concluded that the operations of small-scale gold buyers have improved and the major strategies adopted are the cost-average technique and forward buying. The research also concludes that there was reduction in travelling costs to markets as well as reduction of theft in marketing by the small-scale gold miners in Kwekwe. It is concluded that gold futures are not being used as a strategy because they are not popular in Zimbabwe.

5.1.4 Contributions of gold buyers in the operations of small-scale gold miners in Zimbabwe.

The research concludes that small buyers are the main purchaser of gold produced by the ASMs in Kwekwe and the majority of ASMs have been selling gold for over 3 years. It is also concluded that the majority of ASMs operations have improved as a result of small-scale gold buyers’ assistance with average gold sales in 2006 averaging 35 grams before assistance to 200 grams in 2011 after assistance. The study also concludes that the ASMs co-operation with the small-scale buyers is benefitting the growth of the small-scale gold mining sector in Kwekwe area. It is further concluded that the small-scale gold buyers’ commitment towards the operations of the small-scale gold miners is good and they are addressing the major challenges of capital and marketing being faced by ASMs in Zimbabwe.

5.1.5 Challenges faced by the Small-scale gold buyers

It was concluded from the study that the majority of ASMs faces poor prices form small-scale gold buyers and are not affording their charges which is affecting their operations.
5.1.6 Factors that influences the role played by small-scale gold buyers in the small-scale gold mining sector

The study concludes that government regulation, political environment and the informality of the small-scale miners are the major impediments to their operations in the small-scale gold mining sector in Zimbabwe.

5.1.7 RESEARCH PROPOSITION

The research proposition is that the role being played by the intermediary gold buyers’ in the small-scale gold mining sector is critical in their day to day operations. The research accepts the proposition because there are many important roles these small-scale gold buyers’ are playing to the small-scale gold miners in Kwekwe area such as facilitation of marketing, provision of resources and access to working capital.

5.1.8 RECOMMENDATIONS

The following recommendations are made to assist in the operations and growth of the small-scale gold mining sector in Zimbabwe. It is the researcher’s view that meaningful benefits are going to be derived from them.

5.1.8.1 Access to loans and equipment

The researcher recommends that the government and other financial players should complement the small-scale gold buyers in availing loans and equipment so that the operations of small-scale gold miners are capitalised for increased production.

5.1.8.2 Strategic partnerships

In order for the small-scale gold miners to have access to technical and managerial expertise, the researcher recommends that they enter into strategic partnerships and joint ventures with technical partners with the knowhow and experience in mining to be competitive.
5.1.8.3 Training opportunities

It is also further recommended that training opportunities should be availed to the small-scale gold miners so that they practice good mining principles which are sustainable to the growth of this sector.

5.1.8.4 Empowerment of the small-scale gold miners

The Ministry of Mines and Mining Development should also spearhead the formulation of policies that empowers the small-scale gold miners so that the Mining Loan Fund (MLF) is well capitalised and accessible to the small-scale gold miners operations.

5.1.8.5 Access to Geological information

The research also recommends that the government should make the geological information accessible to licensed small-scale gold miners so that it assists them during gold deposits exploration.

5.1.8.6 Setting up of a small-scale gold buying board

In order for the small-scale gold miners to get fair prices from buyers, it is recommended that the government set up a small-scale gold buying board to oversee the competitive marketing of gold which will go a long way in averting side marketing and ripping off of the small-scale miners by the middlemen.

5.1.8.7 Formalisation of small-scale gold mining

The research further recommends that the government should improve its regulatory policy in the small-scale gold mining sector through formalisation of its operations as well as setting up of gold buying centres across the country for the convenience of both the buyer and small-scale miners.
5.1.8 AREAS OF FURTHER RESEARCH

An area of further research is recommended to investigate the role of funding and the economic effects on productivity in the operations of ASMs gold mining sector in Zimbabwe.
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Appendix I – Interview Guide

Part A: Small-scale Gold Miners

Demographic Questions: Section 1

1. Age
   Below 18 years [ ]   18-25 years [ ]   26-35 years [ ]   36 and above [ ]

2. Gender
   Male [ ]   Female [ ]

3. Is your mining operations licensed?
   Yes [ ]   No [ ]

4. How frequent do the small-scale gold buyers visit your place of operation?
   Weekly   Yes [ ]   No [ ]
   After two weeks   Yes [ ]   No [ ]
   Monthly   Yes [ ]   No [ ]
   Other ________________________________

5. What is your average income from mining operations?
   Below US$200 [ ]   US$201-300 [ ]   US$301-400 [ ]   US$401-500 [ ]
   Above US$500 [ ]

6. What level of education have you attained?

<table>
<thead>
<tr>
<th>Grade 7</th>
<th>ZJC</th>
<th>Ordinary level</th>
<th>Advanced level</th>
<th>Diploma</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To assess the functions of gold buyers in the small-scale gold mining sector: Section 2

7. What are the functions of small-scale gold buyers in Zimbabwe to your operations?

<table>
<thead>
<tr>
<th>Function</th>
<th>Yes [ ]</th>
<th>No [ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource Provision (equipment, chemicals, scale)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contracting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broker</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mediator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funder/Financer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surveying of Gold rich deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tributer Arrangements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To identify benefits brought by gold buyers to small-scale gold miners: Section 3

8. What is the nature of benefits you are getting from the small-scale gold buyers in Zimbabwe?

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Yes [ ]</th>
<th>No [ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricing Discovery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provision of mining expertise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to marketing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. What forms of payment do you get from the small-scale gold buyers for your produce?

<table>
<thead>
<tr>
<th>Payment Method</th>
<th>Yes [ ]</th>
<th>No [ ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash on delivery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash upfront</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheque</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real Time Gross Settlement</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Did your operations improved as a result of the small-scale gold buyers’ assistance?

| Yes [ ] | No [ ] |
11. Which benefits of a marketing nature did your operations gained from the intervention of small-scale gold buyers?

Reduction of theft in marketing [ ] Yes [ ] No [ ]
Reduction in travelling costs to market [ ] Yes [ ] No [ ]
Other ______________________

To establish the contributions of gold buyers in the operations of small-scale gold miners in Zimbabwe: Section 4

12. Whom do you sale your gold to?

Large buyers [ ] Small buyers [ ] other [ ]

13. From your own experience do you think the small-scale gold buyers have the commitment to deal with your mining operations in Zimbabwe?

Yes [ ] No [ ]

14. How do you rate the treatment you receive from the gold buyers?

Excellent [ ] Very Good [ ] Good [ ] Fair [ ] Other [ ]

15. For how long have you been mining and selling your gold to buyers?

0-1 year [ ] 1-2 years [ ] 2-3 years [ ] over 3 years [ ]

16. On average how many grams of gold where you selling per month before and after the assistance from small-scale gold buyers?

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Gold Output per Month (g)</th>
<th>Year</th>
<th>Average Gold Output per Month (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td></td>
<td>2009</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td>2010</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td>2011</td>
<td></td>
</tr>
</tbody>
</table>

To determine challenges faced by small-scale gold buyers: Section 5

17. What are the major barriers you face in getting assistance from the small-scale gold buyers’ to improve your operations in Zimbabwe?

Prices [ ] Yes [ ] No [ ]
Affordability of their charges  Yes [ ]  No [ ]
Informal settlement  Yes [ ]  No [ ]
Other ______________

To make recommendations on the best options that can be adopted by the small-scale gold buyers in Zimbabwe: Section 6

18. In your own view what do you think should be done to improve small-scale gold mining operations in Zimbabwe?

________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
Appendix 11: Interview Guide

Part B: Small-scale Gold Buyers

To assess the functions of small-scale gold buyers in the small-scale gold mining sector

1. What are your functions in the small-scale gold mining sector in Zimbabwe?
   Buying and selling of gold Yes [ ] No [ ]
   Technology transfer Yes [ ] No [ ]
   Surveying of gold rich deposits Yes [ ] No [ ]
   Resource Provision (equipment, chemicals, scale) Yes [ ] No [ ]
   Other ________________________________

2. Where do you sale the gold you buy from the small-scale gold miners?
   Fidelity Printers and Refiners [ ] Black Market [ ] Other [ ]

3. Do you consider the regulatory role of the Reserve Bank in the small-scale gold mining sector as favourable to the growth of this sector?
   Strongly Agree [ ] Agree [ ] Neutral [ ] Disagree [ ] Strongly Disagree [ ]

To identify benefits brought by gold buyers to small-scale gold miners

4. Has your operations realised any benefits since you started gold buying from the small-scale miners in Zimbabwe?
   Yes [ ] No [ ]

5. If the answer in Question 4 is yes, which strategies have you been employing in your gold buying operations from the small-scale gold miners?
   Cost-average techniques Yes [ ] No [ ]
   Gold-futures Yes [ ] No [ ]
   Forward Buying Yes [ ] No [ ]
   Other ________________________________

To establish the contributions of gold buyers in the operations of small-scale gold miners in Zimbabwe

6. How many quantities of gold have you been buying from the small-scale gold miners in Zimbabwe per individual miner per month?
Below 50 grams  Yes [ ]  No [ ]
50-100 grams  Yes [ ]  No [ ]
101-200 grams  Yes [ ]  No [ ]
Above 200 grams  Yes [ ]  No [ ]

7. Is the co-operation with small-scale gold miners benefitting the growth of this sector?
   Yes [ ]  No [ ]

8. From your own experience what are the major challenges you are addressing in the operations of the small-scale gold miners in Zimbabwe?
   Provision of capital  Yes [ ]  No [ ]
   Provision of technology  Yes [ ]  No [ ]
   Facilitation of gold marketing  Yes [ ]  No [ ]
   Other ________________________________

To identify factors that influences the role played by small-scale gold buyers in the small-scale gold mining sector

9. What are the major impediments to your operations in the small-scale mining sector in Zimbabwe?
   Government Regulation  Yes [ ]  No [ ]
   Political Environment  Yes [ ]  No [ ]
   Informality of the small-scale miners  Yes [ ]  No [ ]
   Other ________________________________

To make recommendations on the best options that can be adopted by the small-scale gold buyers in Zimbabwe

10. In your own view what do you think should be done to improve your gold buying operations in Zimbabwe?
   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

End of the interview Guide