

The Feasibility of Value Addition in the Mining Sector in the Wake of the Indigenization Policy in Zimbabwe

Tracquilister Shangahaidonhi and Bryne Gundani

Department of Human Resource Management
Midlands State University, Zimbabwe.

Corresponding Author: Tracquilister Shangahaidonhi

Abstract

This study seeks to establish the effect of the Indigenization Policy in the country against the Value addition strategy which has been called for by policy makers to ensure that the country fully benefits from its resources. The purpose of the study is to explore the feasibility of funding value addition motive when the country employs the indigenisation policy. The study is significant because it contributes to existing knowledge on economic development in Zimbabwe and creates a base for further studies. This work assists policy makers to be equipped with the requisite knowledge on Indigenization and its relationship to foreign investment so as to ensure their viability and the growth of the economy as a whole. The period under study is from 2009 to 2012. Secondary data and empirical studies by other researchers assisted in the formulation of the methodology. Data was fetched from Chamber of Mines, Reserve Bank of Zimbabwe, International Monetary Fund (IMF), World Bank reports, Ministry of Finance and Failed Nations. Monthly data for (FDI), Risk factors, Interest rates, Inflation, Gross Domestic Product (GDP) and Labour costs was used to make a total of 47 observations. The classical linear regression model, Ordinary Least Squares was used to analyse the variables. The research found that, risk factors are significant albeit with a negative sign showing a negative relationship between Risk Factors and FDI. It was concluded that policies such as the Indigenization Policy are not yet forthcoming given that the country is still recovering from the economic downturn. The indigenisation policy has a negative impact on FDI. Policies that reduce country risk levels and that promote peace, anti-corruption and transparency should be encouraged if the economy is to realize long term inflows of FDI.

Keywords: indigenisation, value addition, foreign direct investment, feasibility, policy

INTRODUCTION

The Indigenization and Empowerment bill was passed into Parliament in 2007. The indigenization and Empowerment Act 14 of 2007 was gazetted on March 7 2008 and was signed in law on April 17 2008. The law provided for all foreign owned companies with a share capital above US\$ 500000 operating in Zimbabwe to cede 51% of their shares to indigenous Zimbabweans. On January 29, 2010 the government of Zimbabwe published regulations with respect to the act, thereby rendering the law effective. The regulations included a requirement for companies operating in Zimbabwe to provide specified information to the ministry of Youth Development and Economic Empowerment included in an inclusive implementation plan, by April 15 2010. The publishing of these regulations marked the finalization of the act and consequently the real implementation effects of the act.

The rationale behind the promulgation of the policy is to empower black population which was disadvantaged in the colonial era, to give them a chance to partake in the national economy through owning businesses and generally increasing their stake in the corporate world. The strength of this

policy is therefore premised on the nobility of the cause that gave impetus to its creation. This sunny side is however counterbalanced by an equally controversial and highly contentious side.

Much controversy has arisen from the contents of the policy. Under section 15 of the act, the Minister gives a database of people who want indigenous Zimbabweans to acquire shares in their businesses, and of indigenous Zimbabweans who wish to partner such people. The problem with this section is that it gives the Minister much leeway to impose politically acceptable partners upon reluctant businesses, where partners are not chosen on agreement or suitability, but political merit.

The obvious negative implication of the policy is its stalling of the Investment drive. The policy obviously makes the country an undesirable investment destination. The condition of surrendering 51 per cent to locals is too much a price to pay. This makes the whole exercise a disempowerment drive to investors. In contrast the Namibian Black Economic Empowerment (BEE) has been met with greater acceptance from foreign investors than the

Zimbabwean Indigenization policy, all owing to these adverse investment conditions. The Zimbabwean policy statement is also vague on the issue of National Indigenization Fund, aimed at assisting poor locals with start-up capital. There have been questions raised, such as how the fund is going to be mobilised and what criteria is going to be used to access the funds.,

The Mining industry has traditionally been a major recipient of Foreign Direct Investment in Sub-Saharan Africa and has commonly been important to foreign currency earnings for the region. Over the years Zimbabwe's share by value of mining output declined as a result of poor policies, political interference and lack of investment. This decline can be attributed to lack of investment in systematic geological mapping, poor technical data and mineral endowment, weak institutions and policies, poor infrastructure, the lack of cheap and reliable energy resources (Quashie 1996).

In 1992, as part of a structural reform program under the International Monetary Fund's (IMF) Enhanced Structural Adjustment Facility (ESAF), the Zimbabwe Investment Centre (ZIC) was established as a one-stop shop for investment approval. In 1995, disbursements under the ESAF program were suspended for failure to meet IMF targets, and in 1996, the government substituted a second plan, the Zimbabwe Program for Economic and Social Transformation (ZIMPREST), whose operations investors have found much less satisfactory. By the late 1990s, political turbulence and the government's defiance of the IMF had greatly increased investor risk. This brought FDI flows to a standstill (<http://www.nationsecyclopedia.com/Africa/Zimbabwe>, 2008).

In his 2012 National Budget, the minister of finance Honourable Tendai Biti reiterated that the country's domestic investment shortfalls necessitate that the country intensifies strategies that attract Foreign Direct Investment which is inextricably connected to growth and capital formation. FDI which averaged 18% of Gross Domestic Product in the 1980s and 20% in the 1990s was a mere 1.1% between 2000 and 2009. It can be noted that one of Zimbabwe's declining Foreign Direct Investment portfolio is the Indigenization and Empowerment Act of 2007.

In 1998, foreign direct investment (FDI) in Zimbabwe totalled over \$444 million; by 2001, FDI in-flow had fallen to \$5.4 million. There has been a comparable decline in foreign portfolio investment, reflected in the transformation of Zimbabwe's capital account balance, from a surplus in 1995 equal to 7.1% of Gross Domestic Product (GDP) to a deficit

in 2002 equal to 6.5% of GDP. The sharp surge in FDI inflows in 1998 was partly driven by the privatization and liberalization wave in the Zimbabwean economy. This saw substantial flows of foreign capital particularly from South African firms into various sectors of the Zimbabwean economy. In the late 1990s, the country began to experience political instability and macroeconomic imbalances. Investor confidence was further rattled in 2000 when compulsory farm acquisitions enabled by an Act of parliament began. The sudden reversal of FDI flows coupled with falling domestic investment had depressing effects on the gross fixed capital formation which fell from a record high of 25% of GDP in 1995 to only 17% of GDP by 2005. On average in 2001 FDI inflow was around US\$3.8 million. From 2006 up to the dollarization period, Zimbabwe has continued to face negative real interest rates and these rates have discouraged investment and production but aid undesirable levels of speculation and in turn aid and abet inflation.

Realising the potential of the mining sector as a major economic driver and employment creator would require significant investment in mining exploration. In his 2013 budget the finance minister said that the key to attracting foreign investment is the ability to compete in global markets, both locally and abroad, and to build competitive advantage in key sectors such as the mining sector. He also said that, to build a competitive environment characterised a favourable macro-economic environment which is central for attracting the requisite FDI required for Zimbabwe to grow.

Political or nationalist goals may not be realizable. Throughout 2008 the government of Zimbabwe and the president himself reaffirmed their determination to ensure that 51% of the country's mineral wealth be owned by Zimbabweans. In the pre-crisis Zimbabwean economy, it might have been possible to devise a production-sharing or ownership-sharing formula that satisfied this nationalist idea while simultaneously meeting the minimum return on capital requirements of investors, foreign and abroad. An aggressive Indigenization policy as envisaged in official pronouncements over recent years will not be feasible as it only scares investors away. This implies that in post crisis environment the government will have to moderate its stance. Investment by Zimplats and other platinum companies-Mimosa and Anglo-American Corporation has been adversely affected by the general uncertainty surrounding the future ownership of mining properties and the ambivalence over project-specific and product-specific mining, lease agreements versus a generalised mining investment and fiscal regime.

Investment rates on the local money market are apparently way above regional and international investment rates, but the menacing underlying economic and political fundamentals of the nation have scared potential foreign investors, even those with a high tolerance for risk observed Kingdom Financial Holdings (KFHL) market report, 2011. With securitized placements with a tenor of 30 to 90 days now attracting investment rates ranging from 20% to 35%, this makes returns on the local money market the best in the world”, quoted the paper. In South Africa securitized 90-day paper is being quoted at below 8% while in United Kingdom and United States of America the same paper is quoted at below 1%. Naturally with Zimbabwe’s high investment rates, there should have been a stampede of investors capitalizing on the enticing rates. Zimbabwe’s financial markets are paying the heavy price for the disproportionate sovereign risk the nation carries, a development that inhibits the flow of foreign capital into the country, (Robertson 2009).

There have been calls from different stakeholders for value addition in the mining sector and other sectors of the economy. The country has been faced with an economic downturn from 2000 to 2008. Domestic investment is still very low because of low levels of savings and hence cannot fully support the Value addition strategy which requires huge funding. This calls for the country to look for alternative sources of funding, in particular Foreign Direct Investment. The country has been unable to fully exploit the benefits of high competitive prices to boost exports of minerals further as a result of low investment in the mining sector.

The objectives of this study include:

To establish the benefits of Value Addition of mineral products

To establish the source of funding to finance Value Addition of mineral products.

To establish the reasons for low investment in the Mining Sector.

To establish the impact of Foreign Direct Investment in Zimbabwe.

To assess the benefits and the risks associated with the Indigenization Policy crafted in 2007.

It is the belief of many scholars, that given the state of the economy at the moment Foreign Direct Investment is the only way in which the economy can grow. The research contributes to existing knowledge on economic development in Zimbabwe and creates a base for further studies. This work assists policy makers to be equipped with the

requisite knowledge on Indigenization and its relationship to foreign investment so as to ensure their viability and the growth of the economy as a whole. This is backed by the fact that a friendly investment climate will lead to growth in the Mining Sector.

Several assumptions have been held forth for the purposes of this study. These include; The Indigenization Policy is scaring away investors. Foreign Direct Investment is the loophole that needs to be filled for mining sector growth. Foreign Investors react uniformly to terms and conditions of the Indigenization Policy. The terms multiple currencies and dollarization may be used interchangeably.

This paper intended to test the hypothesis that:

Null hypothesis (Ho): the Risk factors have no effect on FDI.

Alternative hypothesis (H1): the Risk factors have a negative impact on foreign direct investment.

Conceptual Issues on Value Addition

Economic growth is a result of value addition that creates wealth for nations. Nations utilize the gifts of nature which are the raw materials to manufacturing. Africa has abundance of these natural resources but lacks appropriate economic development due to lack of Science and Technology. In the worst case, raw materials are extracted from Africa and exported in their raw state at very low prices. Value addition or processing is done outside the countries of origin and the finished goods or processed materials imported as finished products that attract more money. The importation at high prices opens the gap between poverty and wealthy nations.

Mineral wealth should be a source for equitable growth and poverty reduction. Zimbabwe has wealth in minerals with the major ones being Gold, Platinum, Chromium, Nickel and Asbestos, Copper among others. Most of these are found in the Great Dyke. Closing the gap between rich and poor nations has been a problem for a long time now. The richest countries in the world owe their economic success to manufacturing - value addition to raw materials. Going back in history, Britain was the first country to industrialize and subsequently was the dominant power then until other countries in Europe and Asia followed suit. A case in point is China which has experienced rapid transformation economically thanks to an ever growing and diversified manufacturing industry and has overtaken Germany as the largest exporter of finished goods. All this phenomenal growth hinges on the availability of cheap raw materials from Africa.

Zimbabwe is a mineral rich country. It has more than half of the world's known chromium reserves and is the second largest producer of platinum after South Africa, which accounts for approximately 80% of the world's total annual platinum production and contains an estimated 88% of the world's platinum reserves, with a proved and probable reserve of 6,223 tons, or 223 million ounces (Mbendi, 2009). Mining contributes significantly to Zimbabwe's economy by producing a wide range of minerals for export and for domestic usage as raw materials to the manufacturing and agricultural sectors. Platinum is among the major minerals that are exported from Zimbabwe but it is exported to South Africa as concentrate hence Zimbabwe production figures end up being credited to South Africa. Platinum has been known to exist for several decades in Zimbabwe, but it is not until now that platinum mining companies are starting to make real progress in extraction and processing (McCoach 2008).

Available theoretical studies give various reasons as liable for attracting foreign investment in a country. Some theories attribute the major components of investment climate as crucial to attracting the much needed FDI, while other have a different opinion arguing that other reasons other than the investment climate are factored in by foreign investors.

The Neoclassical Growth theory has been used to guide the research. Solow, (1956) attempted to express a growth model into a simple production function to explore the key variables that could provide steady growth rates. Within the Endogenous Growth Theory, FDI flows may contribute either directly or indirectly into the economic growth of an economy. Wang, (1990) discerns the effects of FDI activity into direct positive domestic country effects, by stepping up production and transferring knowledge to local suppliers and indirect effects by upgrading the quality of their workforce. Balasubramanyam et al (1996) asserted that, FDI is considered to be the major source of economic growth for developing nations, while relative similarities are observed in the EU.

There are two ways of investment, namely the Hayekian and the Keynesian perspective. Hayekian perspective perceives investment as the adjustment to equilibrium, that is optimal amount of investment is effectively a decision on the optimal speed of adjustment, Chingarande et al, (2012). The Keynesian approach has a more behavioural take on the investment decision. It argues that investment is a capitalist approach which is more concerned as to what the optimal amount of investment for a period will be.

Much of the research on the determinants of investment is a neoclassical theory of optimal capital

accumulation, Jorgenson (1963). A firm's desired capital stock is determined by factor prices and technology. Keynes (1936) and Kalechi, (1937) view that fixed capital investment is dependent on the expectations of the firm with regards to demand relative to existing capacity and in their ability to generate investment funds, Fazzari and Mott ,(1986).

The Marginal Efficiency of Capital theory has made financiers and economists to have an appreciation of the determinants of private investment. The classical theory of investment states that investment depends on the rate of interest (marginal efficiency of capital and it is a discount rate that will make the expected flow of income equal to supply. The General Theory of John Maynard Keynes, (1936) proposed an investment function;

$$I=I_0+ I_r$$

There have been attempts to illustrate the basic set of determinants controlling the motivations for cross-border investment. Early evidence expressed by Mundell (1956) attempt to explain FDI in terms of relative factor endowments and relative factor costs. Mundell (1957) concludes that in the presence of trade barriers and migration, as well as a huge gap between capital rich and capital poor states, the incentive for capital flows is greater.

Political instability is expected to erode foreign investor's confidence in the local economy, which in the end should repel foreign investment away. Barro, (1991) and Corbo in conjunction with Schmidt-Hebbel, (1991) stated that political instability creates an uncertain economic environment detrimental to long term planning. This will consequently reduce economic growth and investment opportunities. Asiedu (2002) contenteds that, countries located in Sub-Saharan Africa are perceived to be inherently risky, which likely keeps foreign investors away from that region. Several studies, such as Shneider and Frey, (1985) and Edwards, (1990) have found that political instability significantly depresses the FDI inflow, but Loree and Guisinger, (1995) and Hanson, (1996) found the export effects to be insignificant.

A research by Nyoni, (1998) on the effect of corporate tax, interest rates and investment climate on FDI in Zimbabwe was carried out covering a period of 12 years from 1983 to 1994 estimated that FDI is negatively correlated to corporate tax and interest rates while it is positively correlated to investment climate. The researchers used a model that included those three variables as the main determinants of FDI flows into the country. The results depicted that the explanatory variables explain about 62% variation of the foreign direct investment in Zimbabwe.

The institutional environment is an important factor because it directly affects business operations. In this

category is a wide array of factors that can promote or deter investment. The first of these is the existence of corruption and bribery. Corruption deters the inflow of FDI because it is an additional cost and because wherever it exists, it creates uncertainty, which inhibits the flow of FDI. The second is the level of bureaucracy involved in establishing a business in a country. Complex and time-consuming procedures deter investment. The third institutional factor is the existence of incentives in the form of fiscal and financial attractions.

Case Study-Foreign Direct Investment in Botswana

Botswana was one of the poorest countries of the world. Three decades have seen Botswana graduate from a low-income to an upper middle-income country with an annual GNP per capita of about US\$3,280– up from less than US\$100 per annum in 1966. A large part of this success story emanates from the discovery and profitable exploitation of diamonds. Botswana has been open to foreign direct investment (FDI) since independence. It is through this path, particularly the FDI into diamonds that has been the driving force of the economy allowing the economy to change in structure from dominance by the agricultural sector at independence to dominance by mining in about ten years. Agriculture shrank from a 39% share in 1966 to about 2% share of total output in 2003. Mining, on the other hand, has increased from non-existent in 1966, reaching a peak of 47% before starting to decline to about 35% in 2003. Botswana had hardly any location advantages for FDI, given its small and poor population living in the rural areas.

Under the new arrangement, government shares in diamond proceeds are derived in three ways. First, government receives equity shares of 15% of the mining proceeds. Second, government has purchased an additional 20% of the shares as part of the agreement for the state to reserve the right to purchase optional equity shares in diamonds. This option has not only allowed the country to increase its shares in diamonds, but has also given the country an opportunity to have direct representation in the Board of Debswana Mining Company, a local subsidiary of De Beers Mining Company. This has the advantage of strengthening the country’s bargaining position when negotiating with Debswana because it gives government negotiators first-hand information on how the country’s diamond mines are run, (Gaolathe 1997)

At policy and strategic levels Botswana has always been very supportive of FDI, as reflected in various trade agreements and financial assistance policies/programmes. Given the small market, it was imperative that the country adopt an export led growth strategy, implying entering into trade

agreements, (Bank of Botswana 2003). These agreements are World Trade Organization (WTO), Africa, Caribbean and Pacific (ACP), European Union (EU), African Growth and Opportunity Act (AGOA), Southern African Customs Union (SACU), and Southern African Development Community (SADC). All these trade agreements have the potential to attract FDI that seeks to locate in Botswana for the purpose of gaining access to international markets.

Despite the existence of a more conducive enabling environment in Botswana, FDI into Botswana has steadily decreased since 1997. From an annual average of US\$29 million for the 1989–1994 period, FDI inflows reached US\$100 million in 1997, but declined significantly to US\$37 million in 1999 and 2002, (United Nations 2003). The net inflow of FDI as a percentage of GDP declined from 9.8% in 1980 to a low of 0.5%. Botswana’s share of FDI fell from 60% to less than 2% in 1996– 2000. United Nations (2003) classifies Botswana as one of the countries with high FDI potential. This report also notes that Botswana performed below its potential for the period 1993–2000, in spite of having been a frontrunner in the periods 1988–1990. It is therefore evident that Botswana has lost its competitive advantage in FDI attraction. The critical question is why such a disappointing record when the basic elements of an enabling environment are in place.

MATERIALS AND METHODS

An exploratory research design was employed to investigate the feasibility of Value Addition in the Mining sector in the wake of the Indigenization policy. This is a suitable design because the researchers carried out a feasibility study on the Value Addition strategy and the Indigenization Policy.

The model was adopted to compliment the exploratory research design. The researchers chose variables that influence FDI flows to come up with the model. This is because this government policy is a constituent of investment climate. The substantial growth in investment in the mining sector is critical to any sustained economic growth therefore this research focused on the variables which are fundamental for macroeconomic stability. The model for this study was adopted from Nyoni (1998) and is specified as:

$$FDI = f(GDP, IR, FI, IC) \tag{1}$$

- Where
- FDI-foreign direct investment in US dollars
- GDP-Gross domestic product
- IR-Interest Rates
- FI-Official inflation
- IC-Investment Climate which is used as a proxy for the Indigenization Policy

The model is specified as:

$$FDI = \beta_0 + \beta_1 GDP + \beta_2 IR + \beta_3 FI + \beta_4 IC + \mu$$

Where β s are the estimation parameters measuring the change in the dependant variable given one unit change in the independent variable and μ is the error term. The model is linear in parameters because the variables determining FDI are assumed to be linearly related to it. The researchers used the Ordinary Least Squares (OLS) method and the economic package E-Views for the estimation of the FDI equation. Foreign direct investment (FDI) is the dependant variable and is given in \$US. This is the amount of FDI flows to the country from 2009 to 2012

Interest rates are considered the unique determinant of investment. They play three distinct functions: i) they influence the discounted value of net benefits over time; ii) they determine the cost of loans from banks and the required rate of return for the owners and financing institutions; iii) they set the economic climate both for financial and real markets. In general investment is a function of interest rate (Nyoni 1998). There exist a negative relationship between FDI and Interest rates.

Changes in inflation rates of the domestic or foreign country are anticipated to alter the net returns and optimal investment decisions of the Multinational Companies (MNC). Empirical studies show that the existence of FDI opportunities is tantamount to increased hedging possibilities against inflation taxes even if no explicit hedging instrument is modelled. In fact, MNCs minimize the negative effects of policy changes, inflation rate in this case, via a shift in the location of production across home and host countries (Sun and Lapan 2000). There is a correlation between interest rates and inflation hence enough justification to include it in the model.

The Indigenization and Economic Empowerment Act enacted in 2007 is labelled by many financial and economic analysts to be a negative factor for attracting FDI. The Investment climate has been made unfavourable and uncertain following its enactment. The researchers have therefore used the Indigenization Policy as a proxy for Investment Climate.

Studies have shown that there is a positive correlation between direct investment and product reacts positively. These studies maintain that FDI that is reacts positively to the trend in growth over a period of years rather than current growth. Foreign investment that is triggered by foreign economic growth and is associated with growing domestic capital accumulation, employment compensation, Research and Development and exports to related parties (Machina 2010). From empirics, GDP is positively correlated to FDI therefore is expected to

have a positive sign. The GDP values used are GDP values at current prices.

Since labour cost are the cost of production, the higher the labour cost the greater it will impact a negative effect on FDI. Average salaries paid to by the government of Zimbabwe to its employees were used, that is total wage bill per month divided by the total employment base and was expressed as labour cost per capital.

To estimate the econometric model outlined above, the researchers studied and extracted annual time series and secondary data on FDI, interest rates, inflation and corporate tax relevant official sources. Thus the statistics on FDI were sourced from RBZ quarterly and annual statements while statistics for inflation were obtained from ZIMSTATS publications. All the data is for the annual averages of the variables under study. The researchers also obtained data on GDP from the International Monetary Fund (IMF) and World Bank publications. To come up with an ideal model specification in the estimation the Ordinary Least Squares (OLS) method was used. This method fulfils the criterion that is used as a measure of goodness of fit estimators. Computation is made easy by the availability of computers with standard E-views 5 package. The coefficient of determination (R^2) which represents the proportion of the variation in the dependant variable explained by the change in the independent variables was used. The OLS estimator minimizes the sum of squared residuals. The other criterion used is the unbiasedness of the estimation technique mean squared error and the asymptotic characteristics of the estimator. The model was subjected to different econometric tests to improve the validity of the regression results. Among the tests include the Augmented Dickey-Fuller unit root tests, Durbin Watson test, R^2 , t-statistic co- integration test and F-tests.

After correlation, the researchers carried out a co-integration test to determine the long run relationship between the variables. To test for co-integration among variables, the researchers employed the two main techniques, which are the Engle and Granger (1987) approach and the Johansen (1988) approach. The Johansen (1988) test for co-integration depends on direct investigation of co-integration in the vector autoregressive (VAR) representation. It yields maximum likelihood estimators of the unconstrained co-integration vectors and it allows one to explicitly test for a number of co-integration vectors to complement the Engle and Granger (1987) approach. The researchers also tested for autocorrelation between the variables. The autocorrelation of a random process describes the correlation between variables of the process at different points in time, as a function of the two times or the time difference. This was measured by the Durbin-Watson statistic

and the statistic should be close to two to signal no autocorrelation between the variables.

The limitation of the research was that, the researchers carried out a desktop research which required extraction of secondary data from respective institutions such as the RBZ, IMF and ZIMSTATS. This required the use of the internet and telephone conversations. The researchers were faced with network challenges in trying to acquire the desired data on time. There was also reluctance by the personnel from these institutions. They feared citing and providing confidential information hence this was another problem that the researchers came across.

RESULTS AND DISCUSSION

The research established that, Gross Capital formation remained low at below 10% of GDP against the desired range of 20-30% of GDP. Between 2009 and 2012, the country’s GCF ranged from 15-22% of GDP, which is below the required 30% Gross Capital Formation. This shows that there are Domestic Investment shortfalls. The table below shows the figures for GCF:

Table 1 Domestic Investment

	2009	2010	2011	2012
	%GDP	%GDP	%GDP	%GDP
Government GCF	0.61	5.46	5.5	7.5
Private GCF	15.14	14.51	16.7	11.9
Total GCF	15.75	19.97	22.2	19.4

Source: RBZ publication

For developing countries such as Zimbabwe, gross capital formation of at least 30% of GDP is required to facilitate high and sustainable growth rates. The Zimbabwean economy is small and fragile and it is imperative and obligatory to expand the productive base. Domestic investment shortfalls necessitate that we intensify strategies to attract foreign direct investment, which is inextricably connected to growth and capital formation.

The research established the funding requirements for the Value addition strategy to be achieved. The pie chart below shows the funding requirements per mineral.

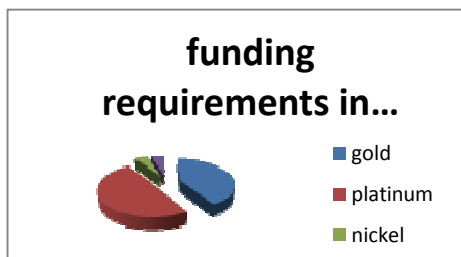


Fig 1 funding requirement

Source: Chamber of mines publication

Gold and platinum are the top requires of funding to finance Value Addition needing \$1billion and \$1.2 billion respectively. The processing for diamond ranging from cutting will require 339 million. Coal, Nickel and Chrome require 225, 118 and 110 million dollars respectively to finance Value Addition Strategy. This implies that these minerals aggregately require around \$US3 billion to achieve the strategy. This however only needs foreign capital injection to supplement domestic investment. The budget is so constrained that it is allocating very little to the mining sector with allocations averaging 0.2% of the total budget.

The research established that in light of promoting the locals through empowerment, the government has given the local manufacturing companies involved in the process of cutting and polishing rough diamonds the licences to operate. However it has been noted that the licence fees are very high and they are not in line with those charged in the region. The graph below shows the licence fees in selected countries:

Table 2: licence fees

country	Zimbabwe	South Africa	Botswana
	\$120000	ZAR5000	BWP1000

Source: chamber of mines publication

Unit root tests were conducted so as to test for stationarity using the Augmented Dickey-Fuller test. All the variables were stationary at order zero.

The Durbin Watson statistic was used to test for autocorrelation which is the correlation between members of series of observations ordered in time, as in time series data or space that is cross-sectional data. The summary of regression results shows a DW statistic of 2.319166. The interpretation is shown below.

Table 3 Durbin-Watson test

Positive autocorrelation	Zone of indecision	No autocorrelation	Zone of Indecision	Negative autocorrelation
0	0.927	1.739	2.188 3.0733	4
2.019166				

Source: Eviews 5.1

The overall tests show a DW test of 2.019166. This figure falls in the no autocorrelation zone implying that there is no autocorrelation in the model.

The researchers employed the correlation matrix to detect the presence of severe multicollinearity between variables. This exists when the corresponding values between the variables exceeds 0.8. The table below shows the summary of the results

Table 4 Multicollinearity tests

	FDI	GDP	INF	INT	LC	RF
FDI	1.000000					
GDP	-0.749377	1.000000				
INF	-0.062573	-0.094628	1.000000			
INT	-0.154899	-0.117872	-0.036184	1.000000		
LC	-0.607788	0.727620	-0.004404	-0.018157	1.000000	
RF	-0.279530	0.220800	-0.048808	-0.066533	0.158369	1.000000

Source: Eviews 5.1

The table below shows a summary of the regression results. The summary of the regression results also includes the overall results for the R², adjusted R², the F-statistic, t-statistic and the Durbin-Watson statistic for the whole model.

Table 4 Summary of regression results

Variable	Coefficient	Standard error	T-static	p-value
GDP	3.262899	0.825530	-3.952487	0.00000
RF	-0.972956	.434238	-2.240603	0.0305
INT	4.221879	1.668465	-2.530397	0.0153
INF	-7.5714451	4.377655	-1.729568	0.0412
LC	-0.021591	0.863836	-0.024995	0.1802
C	18.86146	0.531138	35.51141	00000

Source : Eviews 5.1

R² = 0.797704

F-statistic =9.929728

Adjusted R² = 0.742546

Probability (f statistic) =0.00000

DW statistic =2.019166

After obtaining the above results the researchers managed to develop the model specified as follows:

In the interpretation of results, Risk factors were at 5% significance level albeit with a negative sign of -2.2406. The inverse relationship between risk factors and FDI means that a percentage change in Risk factors will cause FDI to fall by 2.2406. This means that as the level of uncertainty that is currently attached to the Indigenization bill increase, FDI will continue to fall. Hence the country will find it difficult to achieve the Value Addition motive. These results are in line with Bleany (1993) who found that uncertainty will lead to diminishing volumes of FDI.

GDP has been found to be significant in explaining the variations at 5% significance level. A coefficient of 3.262899 means that one unit percentage increases in GDP will cause a 3,262899 increase in FDI. This shows that there is a positive relationship between FDI and GDP. The results are in tandem with Gross and Trevinos (2002), who found in their research that FDI flows to countries with increasing GDP. However the results are in contrast with Nonnemberg and Mendone (2005), who found in their study that Inflation, GDP and Interest rates are insignificant in attracting Foreign Direct Investment.

The statistic coefficient of this variable is -7.571451. The p-value is relatively insignificant at 0.0912. This shows that inflation is insignificant in explaining attracting the much needed foreign investment. The results differ from Ehimire (2010), who carried a study in Nigeria and found a positive relationship of inflation and FDI. Mendone and Nonnemberg (2005) found a negative relationship between inflation and FDI.

The labor cost variable was found to be insignificant in impacting and receiving Foreign Direct Investment. The P-value is 0.9802. This shows that the employment costs for Zimbabweans do not affect FDI. This is in contrast with what Machina (2010) found in his research. He found that labor costs significantly affect FDI flows.

The statistic of Interest rates is significant at 5% confidence level with a coefficient value of 4.221875. According to the Keynesians investment will respond to changes in interest rates such that a fall in interest rates will encourage investment. There is an inverse relationship between interest rates and this is shown by the negative sign. Deposit rates were used because foreign investors are interested in return on investment, moreover they borrow from the parent country so lending rates were not used.

The influence of other variables that affect profitability but are not included in the model are captured by the single variable called the error term, (Gujarati 1995). From the results an R² coefficient of **0.797704** was obtained meaning 80% of the independent variables are able to explain the dependant variable. This result shows the model can be used to explain the variables, the remaining 20% can be attributed to other factors not included in the model.

The F-statistic tests the model for fitness and the recommended F-statistic is anything greater than 5. The results obtained an F-statistic of 9.97 which is a signal that the model is fit for use.

CONCLUSION AND RECOMMENDATIONS

The research conducted revealed that a harsh investment climate negatively affects foreign direct investment. Using the OLS econometric model the researchers found that the investment climate is risky as it shuns investors away. This is in tandem with the

hypothesis. Empirics show a long run relationship between FDI and investment climate and this follows that Zimbabwe should strive to restore the attractive investment climate if economic growth is to be achieved.

In as much as investment climate is essential to attract FDI, other factors such as Interest rates and inflation should not be left out in policy implementation. The policies to be adopted should not shun investors but rather promote investment at all cost. There should be inclusion of the general populace in crafting of policies so that all Zimbabweans feel responsible for maintaining a conducive investment climate for business development and investments.

The following recommendations have been proposed by the researchers;

- The National budget resource allocation must recognize the role of mining and allocate resources for the growth of the mining sector.
- The economy's greatest requirement at the moment is investment. It should be noted that economies that grow are those that generate employment and fight poverty, this can be achieved through political and macroeconomic stability, Investment security, improving conditions for doing business and Economic Policy Predictability and consistency.
- Licence fees should be levied in line with those in the region to promote local manufacturing companies who engage in value addition of minerals.
- The government should try to promote transparency on all macroeconomic issues. The Investment policies should be practised with extreme caution because they send a signal to foreign investors and influence their investment decisions. Passing of sensitive bills like the Indigenization bill and the Land Reform act, which are noble in our view, should be done in a way that does not shun investors.
- The external debt for the country is disturbing. Currently it is over \$US12 billion and this is affecting the country's creditworthiness. This will only increase the country's disproportionate risk that will negatively affect the flow of FDI. The government should seek ways to reduce the external debt.
- The one-stop shop is expected to shorten the investment approval processes and eradicate system bottlenecks and would reduce the time taken to process investment applications from 96 to five working days. This would result in the streamlining of such processes as company registration, getting construction permits and resident permits, completion of immigration formalities, enhanced aftercare and investment facilitation as well as registration of mining

titles, among others. However, although this policy was launched in 2010, its implementation and effectiveness is not clear. Hence the government should ensure tight implementation of the passed bill.

- Performance of the host country in terms of its GDP is an important factor that boosts investor confidence. The government should find ways to promote local production. Many local companies are currently operating below capacity because of the dilapidated state of machines and equipment; the government can intervene to boost production of those companies. The government can also help to promote local production through research and gathering of essential information that can affect the performance of industries. This can also help to reduce research and information cost to local companies.
- The key to ensuring that FDI inflows are harnessed into the country will be the creation of an enabling environment where there is security guaranteed for foreign investments without policy inconsistencies. Respect of property rights will also instil confidence in would- be investors and the current investors. The Bilateral Investment Promotion Agreement, for instance was signed between Zimbabwe and South Africa in 2009 after protracted negotiations. This agreement offers protection to South African investments in the country against possible forfeiture. This is an investment stimulant.

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