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THE FINANCIAL IMPACT OF MOZAL COMPANY IN MOZAMBIQUE

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ABSTRACT

The present paper aims to show and explain with detail the reality, experience and economic benefits that the company Mozal Aluminium smelter has in General and for Mozambique.

The company was chosen to show the benefits that it brought to Mozambique. There are various companies that contribute to the increase of the Country's economy but this specifically is one of the best examples, 'taking also in consideration the list of the largest 100 companies of the country in 2009, released by KPMG Consultant'(DW - Deutsche Welle, 2019) (with specific characteristics, number of employees with own interests and entrepreneurial spirit) that operates in Mozambique, and contributes allot to the increase of the country's GDP, as well as the difficulties that the company encounters on daily bases from day one of its existence.

The realization of this study pretends to acknowledge and understand the reality lived by the Mozambicans after and before the arrival of Mozal Aluminium smelter in the country. We used the descriptive research and literature review method that will help us understand the arrival of Mozal Aluminium smelter and how it functions.

Keywords: Benefits, Country's economy, GDP, Mozambique Economy.

Resumo

O presente artigo pretende mostrar e explicar com detalhe a realidade, experiência e benefícios económicos que a empresa Mozal tem em geral e para Moçambique.

A empresa foi escolhida para mostrar os benefícios que trouxeram ao país. Existem várias empresas que contribuem para o aumento da economia do País mas esta especificamente é um dos melhores exemplos, tendo também em consideração a lista das 100 maiores empresas do País em 2009, divulgada pela consultora KPMG (DW - Deutsche Welle, 2019) (com características específicas, número de colaboradores com interesses próprios e espírito empreendedor) que opera em Moçambique e contribui para o aumento do PIB do país, bem como para as dificuldades que a empresa encontra diariamente desde o primeiro dia da sua existência. A realização deste estudo pretende reconhecer e compreender a realidade vivida pelos Moçambicanos antes e depois da chegada da empresa Mozal. Utilizamos o método de pesquisa descritiva e revisão de literatura que nos ajudará a entender a chegada da empresa Mozal e como ela funciona.

Palavras-chave: Benefícios, Economia do País, PIB, Economia de Moçambique.

Acknowledgements and Dedication

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“Education was never an expense. It has always been an investment with a guaranteed return”

Arthur Lewis.

Abbreviation List

BTO model - Build, transfer, and Operate

BAD - Banco Africano de Desenvolvimento

BATNEEC - Best Available Technology Not Entailing Excessive Cost

CIP - Centro de Promoção de Investimentos

CFM - Maputo Port Development Company and the Mozambican Railway and Port Authority

DU – Documento Único

EIU- ESTIMATIVE INTELLIGENCE UNIT

Eskom – Electricity Supply Commission of South Africa

MOTRACO – Mozambique Transmission Company

EMP- Environmental Management Programme

FDI - Foreign direct investment

GTC's- Gas treatment centres

GDP – Gross domestic product

HDI – Human Development Index

IFC – International Finance Corporation

IDC – Industrial Development Corporation of South Africa

IFZ - Industrial Free Zones

IDE- Investimento directo estrangeiro

INE - Instituto Nacional de Estatística

JUE - Janela Única Electrónica

MTC - Ministério dos transportes e comunicações de Moçambique

MCDT - Mozal Community Development Trust

PRE – Programa de Reabilitação Económica

SINTIME - an affiliate of OTM

SAPs - Structural adjustment program

SMEELP – SME Empowerment Linkages programme

TNC – Transnational Corporation

UNECA - comissão económica para a África da ONU

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CHAPTER I

1. Introduction

Mozal is an Aluminium smelting company, with South African and Australian capitals; it's one of the big exportation Projects in Mozambique. The factory is located in an industrial park of Beluluane in Matola, South of the Country, 20km away from Maputo capital city, (DW - Deutsche Welle, 2019) .

The Aluminium is produced my means of an electrolytic process that reduces alumina (aluminium oxide) to produce aluminium and carbon dioxide. The electrolytic process takes place in containers called reduction pots (or cells). These pots are arranged side by side in long buildings called pot rooms and are electrically connected in series by an aluminium bus bar (conductor) system. During the electrolytic process, various pollutants are released from the pots which are then trapped by hoods that enclose the pots and are then ducted to dry in so called gas treatment centres (GTC's). In the GTC's, the gases react with incoming alumina which absorbs the fluoride, removing it before it spreads into the atmosphere. In this form the fluorides are recycled, and small amounts added to the pots and less emissions to the atmosphere and even rivers that are often checked to measure the unacceptable increase of fluoride. Besides air pollution, there is also solid waste management. This solid waste produced during smelter operations includes general waste, laboratory chemicals, spent anodes, dross and spent cathodes/pot linings. It is recommended that the re-usable and recyclable materials in general waste be separated on-site as part of the Environmental Management Programme (EMP) and the remainder taken to a municipal dump. The small amounts of laboratory chemicals should be disposed of by a specialist waste disposal company. Given that Mozal is committed to using BATNEEC (Best Available Technology Not Entailing Excessive Cost) approaches, no major impact is expected from materials handling and solid waste disposal during smelter operation. (MOZFUND (PTY) Limited, 2000).

Mozal was created with a 50-year operating plan¹, with a possible further 50-year extension, under the condition of employing at least 250 Mozambican nationals. The main tax benefits are

¹ Decree 45/97

exemptions from the corporate income tax, the VAT, excises, customs duties on imported capital goods, the stamp tax, the real property transfer tax, and the municipal tax on rental income. A 1% substitute corporate income tax has been levied on Mozal since two years after its creation. Allowable deductions include expenses related to staff training, and improvement of the information and technology to Mozal benefit also from exemptions in the personal and corporate income taxes, respectively, (Manuel, Teresa, Herve, & Maria, 2005).

The company initially produced aluminium specifically for export, even though they now provide aluminium ingots² to the world's largest manufacturer of aluminium cables - Midal in Mozambique and exports to Europe by sea.

Taking in consideration that Mozambique was underdeveloped³ by the time Mozal project was built, there was a need of:

- ❖ new infrastructure and special services
- ❖ New shipping berth and facilities at Matola Harbour
- ❖ Deactivate land mines
- ❖ Better road access to transport aluminium
- ❖ Build a village for expatriate construction workers
- ❖ Permanent housing for smelter operators.

The project also involved supplying power, industrial water, and a sewage treatment plant, pollution system with 4 treatment centres for gases and smoke and 13 filters in each centre to contain the gases and smoke mentioned above.

1.1 Problem statement

Taking in consideration that Mozambique has no experience in big projects and recovering from civil war that occurred in the period 1977 – 1992, some challenges were encountered during the

² It is a mass of metal like bar, plate or sheet that has been cast into a size and shape. Used to store and transport a semi-finished or finished product.

³ Being Underdeveloped means a country that faced poverty, over-population, poor education and healthcare, war and even inequality of social classes.

process of the construction such as;

- ❖ No existing infrastructure capable of supporting the plant (power, water, roads, communications)
- ❖ Unskilled Labour force
- ❖ Logistical challenges of importing air
- ❖ Malaria, HIV/AIDS and other infectious diseases
- ❖ Flooding and rain damage
- ❖ Language barriers.

Due to all of these challenges, the United Nations developed and compiled a statistic method called HDI – Human Development Index to measure and differentiates countries' level of social and economic development. This method concentrates in some areas like: Years of schooling expected vs. years of schooling and life expectancy at birth. This index is a tool to follow changes in development levels over time and to compare the development levels of different countries, (Morse, 2019).

1.2 Justification

The work was justified by providing a qualitative research resulting in descriptive research to help us understand the story behind a mining company, especially the impact it has for a country that is known as a developing country in the world, not forgetting that Mozambique in the period 1977-1992 was dealing with a civil war. The work is highlighted with various information of Mozal and talks about the way the country deals with external negotiations, making sure that there is a reduce of future mistakes and losses especially with labour actions.

The use of bibliographic research was considerably hard. Even though consultation in library and personal collections provided more interesting material, we mostly highlighted more digital information (which gives the dimension of the difference between doing research in the contemporary period and doing research over ten years ago) and some personal information which was not much due to secrecy from the informants.

For the society, this research is justified in general as an organization that applies all fair legislation to their employees and applying them correctly. Thus economically, the company works properly, neither the employees nor the organization need to change competent bodies in search of better union protection, therefore reducing the number of lawsuits and costs involved.

Academically, justified by us, this work provides an overview of the required legislation, analysis of the constant growth and evolution of the labour market, and the promotions of professional development and positive financial growth to the country.

This research as a whole answers questions of some specific critical points of the company and its relationship with the country, and we hope it will help future research and future mining companies to have a certain idea of how to improve future business and how to proceed to avoid any negative impact for the country and company itself, we reached to an interesting and very useful conclusion in the mining sector.

1.3 Objectives

1.3.1 General Objectives

- To know and understand the reality of the Mozal (The structure).
- To analyse how it financially Impact Mozambique.

1.3.2 Specific objective

- Identify specific contributions to the society (Social Support).
- Understand labour needed to maintain the company.
- Understand the sectors of the company.

1.4 Conceptual Framework

This research is organized in four chapters and an appendix.

- ❖ Chapter 1: Presents and justifies the work that was done such as the general and specific objectives, limitations and conceptual framework.
- ❖ Chapter 2: Discuss the History of Mozal and Mozambique.
- ❖ Chapter 3: Methodology, data presentation and analysis with their results obtained from the material used.
- ❖ Chapter 4: Conclusion.
- ❖ Chapter 5: Bibliography
- ❖ Chapter 6: Appendix (Questionnaire)

1.4.1 The importance of Financial benefits for Mozambique through Companies/International Commerce

From what we can say about international transactions, Mozambique assumes a short role worldwide. Although it has tendency in growing in some exporting products like aluminium that had its price increased in international market and with more production volume from Mozal Company, not forgetting the gas and electricity that are also related to the big investment projects in the country. The traditional export like cotton, sugar, tobacco and cashew nuts, charcoal does not fall behind in this growth, (AICEP Portugal Global, 2011).

Investment, primarily supported by foreign direct investment in megaprojects, grew at an average rate of 11% during 1996-2004, higher than the country's overall GDP growth rate and the industrial sector, comprising mining, manufacturing, electricity and water, and construction, was the main contributor to overall GDP growth during this 1996-2004. The high rates of investment, especially after 1998, are mainly due to the megaprojects MOZAL I and MOZAL II (aluminium smelters) and the gas pipeline to South Africa. The megaprojects also explain Mozambique's buoyant performance in exports, which grew at an average rate of about 29% during 1997-2004, (Manuel et al., 2005).

1.5 Limitations

We have encountered some difficulties during this research, MOZAL in specific does not provide information's of their suppliers, workers and even Tax payments, neither does the National Statistics (INE - Instituto Nacional de Estatísticas) and Ministry of Finance share most information as its said not all to be public domain, Because of that the Author does mention some information due to little access to specific information that was crucial was of confidential use. Most of the Material used was in Portuguese language, so a special attention in translating and avoiding misinterpretation was a key fact.

With that said, some information will be provided, however it will not be exemplified. We managed to get some information about the company with new and old employees who asked to be treated anonymously, besides that we carried the research without hindrance or difficulties.

CHAPTER II

2 Literature review

In this section that is the literature review I bring certain concepts and definitions and theories brought by some authors that serve as guidelines that should be taken to account in understanding the importance of the company Mozal in Mozambique.

“The construction of Mozal is an example of our commitment to the development and prosperity of our country and Southern Africa.”
(Joaquim Chissano, former President of Mozambique, Mozal News, November 2000, No 9, (Gilbert Pretorius, 2005)).

“Mozal is the most often quoted example but what Southern Africa needs are many more Mozals that demonstrate efficient public/private partnerships. ”

(The Southern Africa Economic Summit Report 2000: 4 , (Gilbert Pretorius, 2005))

South African capital has long been a driving force in the Mozambican financial market. The literature on finance in Mozambique usually emphasizes that the Mozambican commercial financial system is controlled by Portuguese financial interests. In other words Portuguese banks own most of the banks in Mozambique, and the larger banks from the point of view of domestic banking operations with responsibility of 20% on financing of investment, production and trade in Mozambique, (Castel-Branco, 2004).

We cannot forget that there was a long-lasting impact on the economy due to European colonisation. During the Portuguese colonial era, the exploitation was more of local natural like agricultural. Exploitation of labour, which was also a big factor and valuable resource in the colonial era, and human resources which at that time even though not as much as today it opened international doors for others countries to invest in what Mozambique was offering.

The Big South African firms were the main beneficiaries of these projects, they benefited in construction and technical input supply. The smaller local firms did not have this luck due to incapability of supplying technical services neither make use of Aluminium ingots. For Mozal

itself was a challenge to find the perfect local firm to work with, during the selection they valued the firms that were striving to create a successful business than the firms that just wanted to win a Mozal contract. Another challenge was to create commercially viable businesses with this firms, (Robbins, Lebani, & Rogan, 2009).

Although it was a big step introducing the role of Market and Private Sector in Mozambique's development strategy, FRELIMO in specific recognised that there was a weakness in the country's state and institutions. It lacked necessary financial and technical capacity to deal with big projects, (Gilbert Pretorius, 2005).

- Lack of skilled and competent administrators to manage market economy;
- Lack of capacity or will to produce a coherent industrial policy as they are being pulled in different directions by donor's interest;
- Lack of technical know-how and entrepreneurship experience making them to seek support from the state than those in more developed countries.

The Mozambican writer Ungulani Ba ka Khosa expressed himself as follows;

“...South was and continues to be a free zone of South Africa. Maputo port and the idyllic beaches are still the great attractions. The Maputo Witbank motorway is an exponential example of dependency. This road will not only allow the rapid circulation of goods but also, in the medium term, it will allow cultural dependence to become effective and strong. I mean: the rules of the game dictated in the South African capital will rapidly be accepted in Mozambique. In my view this is an updating to our era of the constellation of states, by other means. On the surface, the southern zone will be at an advantage in relation to the centre and north when it comes to finance. But, on the other hand, under the surface, our way of seeing, being and thinking will be totally subordinate to the economic and cultural dictates emanate from the South African centre of power.” (Gilbert Pretorius, 2005)

2.1 Mozambique before independence

Mozambique is Located in the Southern Africa and crosses boarder with Tanzania in the North, Malawi, Zambia, Zimbabwe in the West, and South Africa, Swaziland in the South . Has an area of 13.000 Km² of Water and 786.380 Km² of land giving a total of 799.380 Km², (Sigauque, 2017).

Mozambique's long Indian Ocean coastline of 2,500 kilometres faces east to Madagascar. About two-thirds of its population of more than 31 million (2020) live and work in rural areas. It is also strategically located; four of the six countries it borders are landlocked, and hence dependent on Mozambique as a conduit to global markets. The annual GDP growth in 2020 had a decrease of -0.8% after 28 years, in 2021 grew 2.2 and it is estimated to have a growth of 4.4 in 2022, (World Bank, 2014).

For the first time in the year 1962, Mozambique opened their first university in Lourenço Marques, now known as Maputo (Mozambique Capital), the University was called General University.

An important detail is the fact that the Decree-law n° 44.530 that created Higher Education in Mozambique also created Higher Education in Angola, being able to interpret a colonial and not just a Mozambican territorial strategy. This one gives the first signs of a philosophy of higher education turned to the interests of the domination of colonized nations, through the formation of compelling ideologies, (Premugy, 2012).

According to a new research, this Higher Education had a very strong colonial structure and was known for teaching and research as main objectives.

Initially the three main constraints that mostly prevented investment in Mozambique was lack of access to finance, an uncertain policy and regulatory climate, and poor infrastructures, (Robbins et al., 2009).

2.2 Mozambique after independence

Fundo Monetário de Moçambique / Mozambique Monetary Fund – FMI, says that in the last years the Mozambican economy has been affected negatively from the decrease of price of products and climate conditions, and from the hidden loans. The actual economic situation requires an urgent political equilibrium to guarantee a long-lasting macroeconomic stability, that can promote the perspective of growing and open doors to reduction of poverty and income inequalities (International Monetary Fund, 2018).

After national Independence on 25th June of 1975, the country defined a socialist model of development as a social and economic orientation, aiming at the socialization of the economy through revolutionary actions by the workers and peasants, (Sigauque, 2017).

15 years later after the Independence in 1990, there was a review of the constitution, Probabilities of new educational institutions that were not governmentally monitored and opening market economy, were mentioned in the first higher education Law with the number 1/93 in 24th June.

Benefiting from a strategic location, Mozambique is considered as an entrance platform in the market in the SADC⁴ (Southern African Development Community) universe that has 250 million consumers. The country is a success case in the African economy and has its potential as a supplier of energy to the region, natural gas reserve, charcoal and mineral (gold, precious stones, titanium and bauxite). Mozambique also, with more than 2.500km of coast has numerous fishing resources that is the basic exportation, not forgetting the development of aluminium industry, (AICEP Portugal Global, 2011).

The first democratic elections was realised in the year 1994, and until there the economic model of the country was based on the predominance of state property (Domingos, 2010).

COVID-19 has jeopardized years of hard-won development gains. It continues to explain that the

⁴ Was created in 17th July 1992 and has 15 members: South Africa, Botswana, Mauritius, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Democratic Republic of Congo, Seychelles, Swaziland, Tanzania, Zambia and Zimbabwe.

recent global pandemic has taken a heavy toll on Mozambique's economy. In 2020, the country experienced its first economic contraction in nearly three decades. COVID-19 (Corona virus) hit the economy as it was attempting to recover from the slowdown triggered by the hidden debt crisis and the tropical cyclones in 2019 and creating income loss for enterprises and households, worsening living conditions, especially for the urban poor largely engaged in the informal sector. According to the National Institute of Statistics, as of June 2020, about 120,000 jobs were lost and 63,000 employment contracts suspended, with women being the most affected. Around 3% of firms were forced to close; tourism and hospitality industries suffered a decline in revenues, (World Bank, 2021).

2.3 Economic situation and development of International Companies

“It would be peculiar to talk of ‘development’ if during a lengthy Period of sustained economic growth, the poverty, unemployment and inequalities had worsened, particularly in the cases where all these dimensions had undergone deterioration, even if in statistical terms per capita income had doubled over the period’. (Gilbert Pretorius, 2005)

In 1995 Mozambique was a fully dependant of International funds they helped with 50% of the budget deficit. After the signature of the peace agreement, the democracy materialized and the government was committed to improve the economy and implementing a market economy system but not discarding international investment because they became the country's main priorities to attract more investors. As a result the Mozal project granted its approval from the government to proceed but it does not mean that any International project is well managed by the government (Domingos, 2010).

The attraction of foreign investors for Mozambique is mainly due to the wealth existing in natural resources (energy and minerals), the policy of investment incentives and the existence of numerous opportunities arising from the climate of stability and sustainability growth in which the country after two decades of war and instability. It should be noted that, being Mozambique an example of successful political and social stabilization in the post-war period, continues to benefit from international donations, which translates into guarantee of stability for investors.

Direct foreign investment (IDE- Investimento directo estrangeiro) has had an important role in the economy of Mozambique, mainly the mega-projects like: Aluminium from Mozal, natural gas from Sazol, Heavy sand from Moma, Heavy sand from Chibuto, Charcoal from Moatize and Benga, and Hydroelectric from Cahora-Bassa but in the last years there has been a major impact of capital to other sectors like agriculture and agro-industry, construction and construction material, transport and communication, fishing and aquaculture, banking, hotel and tourism (new investment in this area specifically in Inhassoro (Inhambane province), Gilé reservation (Zambézia province), Epidendron and Casuarina Islands (Zambézia province), Crusse and Jamali Islands (Nampula Province) and Special Reserve in Maputo (Maputo province) will occur by the project anchor) , (AICEP Portugal Global, 2011).

Development can be seen as a process of expanding the real freedoms that people enjoy and that the field of economic development is versatile and much to contribute regarding different kinds of scenarios. Both theory and empirical analysis in development economics have made major strides, (Todaro & Smith, 2015).

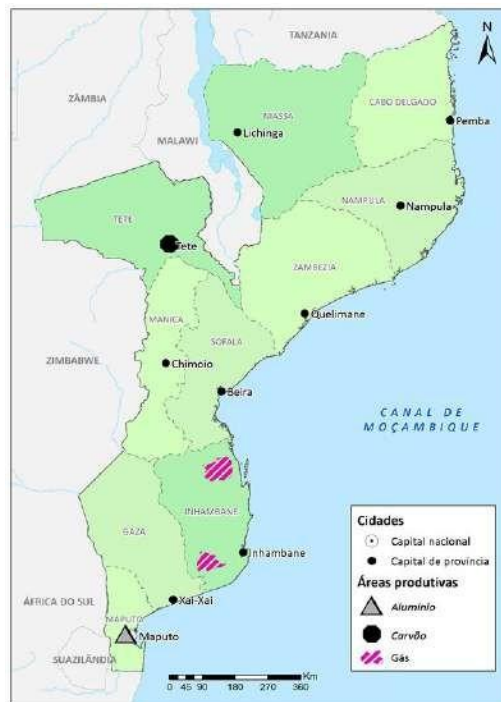
The Harrod-Domar Model is a growth model used in development economics, to measure if the economy's growth rate is dependent on the level of saving and the capital output ratio. Firms usually borrow funds to invest if there is a high tendency of savings in a country, increasing capital stock of the economy and generate economic growth by increase in production of goods and services. In terms of the capital output ratio, it measures the productivity of the investment made. When Capital output ratio decreases the economy will be more productive, therefore the higher amounts of outputs is generated from fewer input leading to higher economic growth, (RE - Rom Economics, 2019).

This model initially was created to help analyse business cycle, but later to analyse and explain better economic growth. For less economically developed countries this model is not quite useful because they lack labour, efficient policies to increase investment, more savings and investing in advanced technology. The model concludes that any economy does not find full employment and stability growth on its own, it requires good management.

The principal megaprojects operated in Mozambique contributed with 70% in 2010 of National Export, (Neto, 2010):

- Mozal (Mozambique Aluminium) – in 1997 the first Megaproject by Japanese and South African Consortium with a total investment of US\$ 1.3 Billion.
- SASOL – in 2004 the second Megaproject by the South-African Multinational, exploring natural gas in Tete province with a total investment of US\$ 758 Million.
- VALE DO RIO DOCE – in 2004 also the third Megaproject by Brazilian company to explore mineral charcoal in Tete with a total investment of US\$ 1.322 Billion.
- Hydroelectric of CAHORA BASSA – in 2012 where reconversion of equity capital occurred. 85% for Mozambique and Portugal with 15% with US\$ 700 Million investment from Mozambican Government (borrowed in foreign banks with expected amortization of 10 years).

Map: The location of aluminium production, charcoal and natural gas in Mozambique



Source: (Neto, 2010)

Graph 1: The evolution of the four principal products of Mozambican exportation in 2016 and 2017



Source:(Neto, 2010)

The four products mentioned above correspond to 67, 9%, 74.2% and 69% of Mozambican exportation in 2016, 2017 and 2018 (Neto, 2010).

Due to all this, foreign dividend and lack of own capital to invest in their own natural high potential resources to promote social economic development and lack of technology, Mozambique finds itself vulnerable to accept the entry of foreign capital with potential technology and foreign workers.

In resume for a country to increase the economic growth it has to decrease the difference that exists in between wealthy and poor individuals, starting from eliminating gender differences, classes and ethnic privileges.

2.3.1 The Increase of GDP in Mozambique

“Let us make the decade 1980-1990 the decade of Victory over the underdevelopment”, this was said by Frelimo in 1980 and as the African Proverb says: “The ruin of a nation begins in the homes of its people”. With this said, we can immediately see positivity to changes and evolution.

Mozambique inherited a colonial economic structure and the South of the country is more developed than the North and the city more developed than the countryside. The country joined

Bretton Woods institutions in 1995 and since then the country has been experiencing a great economic growth leading foreign trade partners to have sufficient reasons to inspire great confidence in the country, (Portal do Governo de Moçambique, 2015).

The major sources of growth of GDP in Mozambique have been services (mostly trade, finance, transports & telecommunications, tourism and construction) and mega and large projects in industry, energy, minerals and agriculture (aluminium, natural gas, heavy or mineral sands, energy, cement, beverages (particularly beer), sugar and cereal milling). Mozal for example is responsible for 48% of total industrial output and 28% of manufacturing value added (MVA), also represents approximately 75% of manufacturing exports, 60% of exports of goods and 42% of total export revenue of Mozambique, with that said if Mozal is excluded from Mozambique's accounts, imports may fall by about one third, (Castel-Branco, 2004).

GDP (Gross Domestic Product), is expected to grow on average 5.5 % between 2017 and 2020,(DW - Deutsche Welle, 2017).

Mozal Aluminium accounts for 75% of mega project contributions towards GDP in Mozambique, tax revenues and balance of payments. With a focus on training and educational initiatives that create an enabling environment for small businesses – a school in the community was built to promote the type of skills that could result in employment or a contract with Mozal, taking in consideration that when Mozal started functioning it created an increase of 13% in 2001, (Robbins, Lebani, & Rogan, 2008).

The official employment statistics for Mozal are understood to be: 745 full time jobs and 2,500 indirect jobs through linkages with other companies; Another 376 full time jobs (2001-present); 9,000 construction jobs; 5,000 workers trained during construction phase and ; resulted in more 6,000 temporary jobs during the expansion phase. Also, the contracts were written in English and some of the Mozambican firms could not deliver services in English. The World Bank and Confederation of Business Associations of Mozambique (CTA) revealed that the three main constraints that prevented investment in Mozambique had been: a lack of access to finance; an uncertain policy and regulatory climate; and poor infrastructures, (Robbins et al., 2008).

According to (Castel-Branco & Nuno, 2008) , all this increase is due to the contribution of all the big projects to the national economy, related to their investment, production and trade. The impact of Aluminium smelting (Mozal) or the exploitation of gas and mineral sands has a big responsibility to the growth of the economy and increase on the PIB and this impact depends also on how the economy retains and absorbs part of the value of production and sales of these companies.

Having Mozal operating in the country is not sufficient to increase the economy, but depends on the effort of Mozal to continue expanding their services; even the externalities and linkages generated by Mozal have a finite multiplier effect, unless Mozal expands. Thus, Mozal's ability to be a growth engine is short lived, (Castel-branco & Nuno, 2003).

The presence of Mozal in Mozambique, the level of exportation tripled and contributed with 7% growth of PIB since the first year of construction, (Domingos, 2010).

It is said that the figures for GNI per capita give no indication of how national income is actually distributed and who is benefiting most from the growth of production. E.g., rising level of absolute and per capita GNI can camouflage the fact that the poor are no better off than before, (Todaro & Smith, 2015)

2.4 Framing of projects and their legislation

2.4.1 General Import Regime

In the past years the Mozambican government adopted legislative measures to simplify the bureaucratic process of external commerce operations, removing the regime of exporting licences. In its substitution, it was introduced in 1st December 1988 the DU (Documento Único), known as single document. The customs clearance form for all goods entering or leaving Mozambique regardless of the customs clearance form applied to them. The system of single Window known as Janela Única Eletrónica (JUE⁵) was recently introduced, simpler than the DU

⁵ <http://www.mcnet.co.mz/home.aspx>

mentioned above. It facilitates business in Mozambique and it includes Trade net that is responsible of providing information from the commerce and the Custom office system that submits declarations for custom offices and other government agencies and later on distributed to its respective government institution electronically, (AICEP Portugal Global, 2013).

Some exported products have to be pre-inspected before departure and this process is done by Intertek Group plc⁶, a Britain multinational company that guarantees inspection, tests and certifies the products – with base in London, England.

Regarding the products that do not need pre-inspection, the importer must submit the DU document directly to customers' service for customs clearance.

2.4.2 Foreign Investment Regime

According to (Carvalho, 2021), we saw that the International Investment is made mostly by the movements of international Capitals, a relevant area for International Economy with the functions of: Economic Finance growth, Stabilizing Economic cycles and Adjusting external accounts. International Investment represents the most important international capital movement, defined as acquisition of rights of the population living in that country over the population of another country (where the capital is being destined), in this process there is transfer of assets and transfers of goods and services. (IDE – Investimento Direto Estrangeiro), International Direct Investment that started to manifest after the end of the second world war at the same time with the confirmation of the Multinational Companies (EMN - Empresas Multinacionais), consisting on the acquisition of Company shares with the intention of control over that same company . Sometimes the control is from the base, the initial construction of the company and its respective finances, not forgetting that this happens specifically for non national companies.

In Mozambique foreign Investment presents potential in business making and all the legislation that was built opened doors for private sectors to invest more. According to the applicable legal framework, all investment projects must be presented and approved by CIP (Centro de Promoção de Investimentos) within 48h and given a 120 days from the notification day to proceed and

⁶ <http://www.intertek.com/government/pressshipment-inspection/exports/mozambique/>

finalize their investment project. They must be submitted with the following documents: Copy of Identification of the investors, Commercial registration Certification or reservation of the corporate name of the company responsible for the implementation of the project, and topographic map or draft of the location where the project will be implemented. The international investment projects must be directly registered with Mozambique Bank (Banco de Mocambique) in a 90 day period after approval.

The law n° 3/93 of 24th June⁷ talks about national and foreign investments and their guarantees, and places the focus on the, importance of investments that will contribute to the economic development of the country.

On the other hand, the Decree n° 14/93 of 21st July now updated by Decree n° 36/95 of 8th of August⁸ deals with proposals, authorizations and achievements of the investment projects.

In the sense to favour investment, to turn it more attractive to receive foreign capital, the Mozambican government proceeded with the revision of legal incentives to give national and international investors. The politics of the incentives is in the codes of fiscal benefits and in the establishment of special economic zones and Industrial free zones. What stands out in this context of legislative alterations from the government with the intention of improving investment are (AICEP Portugal Global, 2013):

- Tax reform
- Approval of the new Regulation of the simplified license for economic exercise activity (RLSEAE)
- Approval of the new amendment to the value added tax code and the specific tax consumption code (extension of exemptions) Regulation of the simplified license for economic exercise activity (RLSEAE)
- Approval of the new regulation for the Unique Tax Identification Number (NUIT)
- Approval of the General Statute of Micro, Small and Medium Enterprises (MSMEs)
- Creation of the Institute for the Promotion of small and Medium Enterprises (IPEME)

⁷ Law n°3/93 of 24th June (Boletim da Republica, 1993)

⁸ Decree n°36/95 of 8th of August (Conselho de Ministros Moçambicanos, 2020)

- New law on Public-Private Partnerships (PPP), Large-scale Projects (PGD) and Concession Business (CE)
- Regulation on Special Economic Zones (EEZ) and Industrial Free Zones (ZFI)
- Approval of Benefice fiscal code
- Cambial law approval
- Creation of simplified tax for small taxpayers
- Creation of the labour mediation and Arbitrary commission
- Labour code approval
- Commercial code alteration
- Alteration of the Notary code

Despite these reforms, there are still market access barriers in Mozambique like: high level of imports tax, excessive bureaucracy with Mozambican services, restrictions on granting credit in foreign currency, limits on hiring foreign workers and deficient on legal system and public health, (AICEP Portugal Global, 2013).

Besides these barriers Mozambique created a bilateral investment agreement with Portugal to promote and protect and has a convention to avoid double taxation. Not forgetting that most of the Mozambican companies have Portuguese capital, even though Mozambique does not have Portugal as a preference as an exterior investor. This agreement results in investing more on financial activities and construction sector.

In 2001, KPMG nominated Mozambique in third place for attracting FDI-foreign direct investment which helps any country grow and develop. This means doing either a Regional, bilateral (as mentioned in above paragraph) or multilateral international investment to improve the country's competitive advantage and resources and obviously attract FDI, (Gilbert Pretorius, 2005).

“Under the economic expansion and globalization of South African large corporations FDI and unidirectional trad, have replaced labor migration and services as dominant vectors of economic linkages between Mozambique and South Africa. South Africa has become the main trading partner of Mozambique and the main driving force for

FDI. The mineral and energy complex (MEC) of South Africa drives FDI in Mozambiquethe Project [MOZAL] was sold to international investors and financiers as a South African development, which happened to be located in Mozambique.” (Castel-Branco, 2004; Gilbert Pretorius, 2005)

It is recognized that Mozambique could share a unique development model that evolved from war to peace, to economic reconstruction, to investor confidence, to the MOZAL mega project, to industrial Park developments and other potential projects all in 10 years , and most importantly it showed that the country can grow with only Mozambican labour (Gilbert Pretorius, 2005).

2.5 History of Mozal

South32 is the company that operates Mozal. It’s a globally mining and metal company that produces bauxite, alumina (white powdery substance), aluminium ore (bauxite), energy and metallurgical coal, manganese, nickel, silver, lead and zinc at their factory in Australia, Southern Africa and South America.

Mozal is an aluminium smelter company situated in Matola City in the capital of Maputo occupying almost 140 hectares of land and with a capacity of handling 600 tonnes of imported raw material and 250 thousand tonnes of finished processed product for exportation. It imports all raw materials from Australia and all finished products is sent to Europe through Port of Maputo next to Matola where it has created necessary infrastructures for that specific activity (like construction of High Potential Power Lines and enlargement of Matola Port Terminal), an advantage of having its location in the Metropolitan City of Maputo with qualified and specialized. In the beginning there was some stagnation of the process of exporting national production leading to a large dependency of the Megaprojects because there was costs of importation of machinery that did not compensate the expenses of the multinational companies with low contribution for the PIB, (Sigauque, 2017) .

The project of Mozal (Mozambique Aluminium) was the first and most large ambitious extractive projects in Mozambique, granted under the legal aspect of SARL (Sociedade Anónima de Responsabilidade Limitada / Limited Liability Company) with a credit in the form of Project

Finance with the right to limited return/recourse and its main activity basically consists of importing alumina and coke for processing and exporting aluminium cast ingots. It was thought in 1995 with a US\$1,304 billion budget from all the shareholders shown in table I below, (including US\$35 million generated during the start-up) and built with 38% Own Capital and 62% of loans but the construction phase started in May 1998. During a good decade of 2010 Mozal was the company with the biggest revenue, and in 2013 managed to bill almost 1 billion dollars (Domingos, 2010; Neto, 2010).

Mozal smelter was recognised as the significant role of the FDI-Foreign direct Investment inflows in Mozambique for the period 1997 to 2002 and it has the best highest paid workers (nationals and expatriates who earned more and had many benefits even with same job) compared to other industries in Mozambique although the pressure, risk and hard work.

The expatriates were offered weekly meals subsidy, paid accommodation and health allowance for anti-malaria treatment. One Mozambican worker angrily asked; ‘Now can you tell me that the mosquitoes can see that the expatriate is not Mozambican’. They assume that locals can work but with low productivity as they are supposedly immune to the parasite but expatriates are still not immune and working is impossible. All this wage discontent brought up strikes in the beginning of the construction of MOZAL, the demands raised was; increase hazard pay, shift bonuses and subsidies to cover rent and children’s education, and to be paid in US dollars rather than in the local currency. This strikes unfortunately resulted in 468 workers fired but later reinstated all apart from 40 employees, not forgetting that strikes discourage further international investment in the country. The striking workers argued that they were abandoned by their government officials who were soft on foreign companies because they want to attract more foreign investment and build the country’s reputation as foreign investor friendly (Gilbert Pretorius, 2005).

Workers complained that since Billiton⁹ has taken over management, their conditions of service, salaries and benefits have been reduced and most negotiations end in strike action. MOZAL used workers from South Africa as scab labour to defeat strike action by Mozambican workers. There were a lot of accusations of discriminatory practices, controlling information and the media and a lack of transparency revealed a narrow and superficial approach to social dialogue. The way the

⁹ Is a world-leading resources company that extracts and process minerals, oil and gas. <https://www.bhp.com/our-approach/our-company/about-us/>

company dealt with industrial actions and strikes suggests that it cannot control the process it could easily change its attitude from union-friendly to anti-union. Another point to consider is that the distribution of the benefits of MOZAL to the lower skilled workers is insignificant. Skilled workers are in short supply and MOZAL while has contributed to the development of human resources through training, in the short term these skills are likely to stay in MOZAL because of the higher wages offered specially for the expatriates, (Gilbert Pretorius, 2005).

The manager of SME – Small and Medium Enterprise, in an Interview to the author (Lindahl, 2007) quoted/said, “What happens when the contract with Mozal expires? Those people have been trained for working with Mozal, you can’t use them here (Traditional Mozambican market). That is why more investments are needed, so the trained workforce can be used. Mozal had always the opportunity to turn to South Africa for labour and other supply. It can be discussed whether a country with the king of problems that Mozambique has, with poverty and unemployment, should focus on projects like Mozal. Despite the increased attention to the big mega projects, only a limited number of formal sector jobs have been created in the industrial sector”.

Mozal was built in two phases. Phase I was built with six months ahead of schedule during the period 1998-2000 (in June of 2000 the first ingot of aluminium was produced) and Phase II started in 2001 and completed in 2003 with seven months ahead of schedule. It is considered the world’s lowest-cost aluminium producers and the capital invested per tonne of added capacity is among the lowest in the western world. Although there is Mozal I and Mozal II, they are both managed by the same shareholder like the Company Billiton being the largest investor followed by IDC – Industrial Development Corporation of South Africa as the second largest shareholder, and the distribution of shares among all shareholders for Mozal II is the same as for Mozal I. Both reached full production in record-breaking time, enabling substantial savings in cost. The price of aluminium is determined on the international market, co-ordinated by the London Metal Exchange and with this the profit margins are maintained by keeping cost to a minimum. Mozal has the advantage of reducing cost by producing primary aluminium more cheaply than most of its international competitors in developed economies such as Canada, Europe and Australia (Gilbert Pretorius, 2005).

Picture 1: Mozal factory Aerial view



Source: (Domingos, 2010)

The Project brought some environment impact as, (Arsyad, 2002):

- Atmosphere : air pollution
- Quality of water : regular check on level of drainage from the facilities
- Waste : The processing and disposing wastes
- Noise
- Ecosystem
- Offensive odour
- Soil contamination
- Preventive measures against accidents: one employee died in May 2000 and there have been several accidents.
- Water utilisation
- Influence during construction
- Monitoring
- Consideration for Inhabitants

Mozal itself created the Mozal Community Development Trust (MCDT) to promote social development of the communities surrounding Mozal. This project had an annual budget of \$2 million, and particularly focused on training and educational initiatives that create an enabling

environment for small business. In the year 2004, IFC – International Finance Corporation which facilitated the creation of the Mozambique Business network¹⁰, offered support to MCDT in the form of financing for a school in the community that promotes the types of skills that could result in employment or a contract with Mozal, (Robbins et al., 2009).

The basic materials to produce Aluminium are Electricity, Alumina, qualified labour initially from South African workers together with non-qualified labour from Mozambique and other primary materials like liquid tar, petrol, and charcoal that will be imported with a long term contract from the same suppliers that supplied the Aluminium Company in South Africa. 1/3 of Alumina production will come from Australia, part of a contract agreement of 25 years. In 1997 the project Mozal was approved by the Shareholders, 17 years after Mozambique managed to leave the Civil war with a peace agreement signed in 1992 in Italy. This same Civil war left the country with damaged public infrastructure, high poverty level, corruption, low justice system from the government, diseases like HIV, Cholera, and Malaria where Ignored due to lack of treatment. The principal market of Mozal is the European Union, due to the exemption of taxes agreed on the Lomé convention¹¹, which also explains the important presence of Holland as the third biggest destiny of the Mozambican exports in 2017, followed by Italy in fourth and United Kingdom as fifth (Domingos, 2010; Neto, 2010).

Aluminium and energy go together for three reasons. First, energy is the major component of aluminium and the main reason why Mozal was built around Maputo, in Beloluane. Second, the largest energy investment of the last decade was made in Motraco Sarl (a joint venture of three electricity corporations namely EDM from Mozambique, that produces electricity from the large Cahora Bassa dam on the Zambezi River, in Tete), ESCOM from South Africa and SEB from

¹⁰ It is a network of 15 local SMEs that offer a forum for sharing ideas and experiences pertaining to contracts with large TNCs – Transnational Corporations in Mozambique. The membership of the network originally formed from participants in SMEELP – SME Empowerment Linkages programme and Mozlink I (was constructed as the original smelter but built ahead of schedule and under budget, also to build on the successes of SMEELP) and the network now holds monthly meetings to connect firms, banks, corporations and other relevant stakeholders.

¹¹Lomé convention is an agreement which the European Union helps some of the poorer countries of Africa, the Caribbean, and the Pacific (ACP), by offering special arrangements.
<https://dictionary.cambridge.org/dictionary/english/lome-convention>

Swaziland, a power station built to supply energy to Mozal. Third, Mozal consumes more than twice of energy as the rest of Mozambique, and imports of energy from South Africa have increased almost 20 times since Mozal came into operation, (Castel-Branco, 2004).

Besides the need of Electricity, Maputo Port Development Company and the Mozambican Railway and Port Authority (CFM) had the responsibility to bring the alumina ships to Mozal’s dedicated berth at Matola and for despatching the aluminium ingot vessels to Europe, (BHPbilliton, 2006).

With the above information we can confirm that the existence of Mega Projects brings development in the Country, Mozal in particularly contributed with the development and economic reform with an annual production of 250,000 tonnes of primary Aluminium in 2004 and since then it duplicated to producing 560,000 tonnes of Aluminium per year. It serves at least to move the local market by cargo transport generating jobs in a combination of work where the forwarding agents intermediate with the clients and subcontract in specific the National transport companies to carry out the service (Domingos, 2010; Neto, 2010).

Table 1: Mozal Shareholder Structure

BHP Billiton	Anglo-Australian	47
Industrial Development Corporation	South Africa	25
Mitsubishi Corporation	Japanese	24
Mozambican Government	Mozambican	4

Source: (Gomes, 2016)

Mozal is exempted from tax payments (the standard income tax of 32% has been replaced by the ‘taxa liberatorica’ which requires MOZAL to solely pay 1% taxes, (Wilhelm, 2018)) and only 4% of its revenue is injected to the Mozambican government (not as impressive as expected from such a mega project), directly taking this amount to pay debt of the cost of Mozal construction. Mozal also receives export and globalization incentives from the South African government, with low energy tariffs. In terms of logistics, the logic would be a local company providing this service of transporting raw material overland in trucks but instead Mozal hired trucks from a South

African Companies and the ones operating are: Strang Rennies, Nifiquile, Ngululu, Ni-Da and Heynans Kole (Picture 2) and finished product to Europe is transported by sea.

Picture 2: Ngululu Mineral truck at Maputo/Matola Tall gate



Source: (Gomes, 2016)

In an interview to the journalist about the impact of the reduction of External help to the Mozambican General State Budget, Castel-Branco, Economist and specialist in Industrial Policy, said that he pointed Mozambique as one of the countries in the world that applies the exemption of taxes to big projects and this is not normal, not forgetting that it has a significant effect on the creation on employment. The fiscal incentives also affect the social stability, an essential point for the projects to work effectively for example the government might feel tempted to overload the population with more taxes to compensate, bringing a major in-satisfaction. This same external help ends up serving the big companies / projects, and without it the Country would not give fiscal incentives to companies who even being benefited, creates less Job opportunities because they bet more on intensive labour with qualified know how, (Castel-branco, 2008).

Despite the great protectionism that accompanied the privatization process, the globalization and internationalization of the Mozambican economy has deepened, increasing dependence. Structural adjustment critics argue that one of the objectives of SAPs - Structural adjustment program / PAE – Programa de ajustamento estrutural is the subordinate integration of developing countries into the world economy in the context of the new reconfigurations of the international division of labour and Mozambique confirms this criticism, (Mosca, 2005).

There are some indirect ways that Mozambique integrated in globalization, such as:

- Regionally in the sectors of Transport, communication, agriculture and tourism.

- The country was also an option to external investments but on those situations where there was a change in economic stability and competitiveness losses. Low African wages force other developing countries (especially Asian) to maintain liberal labour policies so as not to lose competitiveness, Mosca (2004). Chossudovsky (2003) states that the lowest wages in some economies work as pressure with other countries where industrial locations existed, (Mosca, 2005).

The direct external investment comes from South Africa and it focuses on Agribusiness, mobile telecommunication network, tourism, television, new technologies and megaprojects like MOZAL. The installation of Mozal, S.A.R.L., is part of the diversification strategy of BHP Billiton's production. This group holds 47% of Mozal's capital, with the remaining contributions from Mitsubishi corp (25%), industrial development Corporation (South Africa) with 24%, and Mozambique with 4%. South African public and private institutions play a major role in the constitution of Mozal's capital. The investment volume of the 1st phase was around 1.34 billion dollars financed by different international financial groups. The financing is guaranteed by MIGA (Multilateral Investment Guarantee Agency). In the first phase it had a production capacity of 250 thousand tons and second phase was approved in June 2001 that will double the production capacity. For information about MOZAL, (Mosca, 2005).

Local companies were hired for specific departments such as catering services, security, and even in another big dimension hired a company as a supplier of electricity through South Africa. 9000 workers were employed in the first stage and 6000 on the second stage. It's expected after conclusion of investment that 860 will maintain their permanent jobs but this does not guarantee that it can relocate creating unemployment's, 'but the construction and improvements of roads, ports, electricity, telecommunications, water supply, drainage system and other infrastructures that where later used was done by big industries that where specialised, (Domingos, 2010)'.

The contracts with Mozal have a discrete character (a duration of two to three years), and that companies run the risk of bankruptcy if the linkage is discontinued. Even if there is a continuation of the contract for more periods, the demand is unstable taking in consideration the link of Mozal to volatile international markets for primary products, which transmits the shocks to national suppliers since the contraction of Mozal's costs is done in a discriminatory way

between national and foreign companies, (Castel-Branco, Massingue, & Muianga, 2015).

The Aluminium Sales contributed with a 42% of the exported value annually between the years 2000-2015. Looking at the financial dependency of the Country, the entrance of external capital had a great impact on the public debts and their payments. A big monetary amount of the exports is used to pay the debt and as the Multinationals companies' increases, the contribution to national production increased. Therefore, productive and commercial dependence have a direct relationship with the growing increase in financial dependency in the country. And, this refers to the premise that the entry of more foreign capital in the country has made the Mozambican state a prisoner of world financial capital (Sigauque, 2017).

(Autoridade Tributária de Moçambique, 2009) says that, an audit was carried out at the Mozal fiscal post, where situations were found that violate not only the regulation of IFZ-Industrial Free Zones (Decree 62/99, of 21st September) but also the specific legislation for the creation of Mozal (Decree 45/97, of 23rd December) embodied in the following facts:

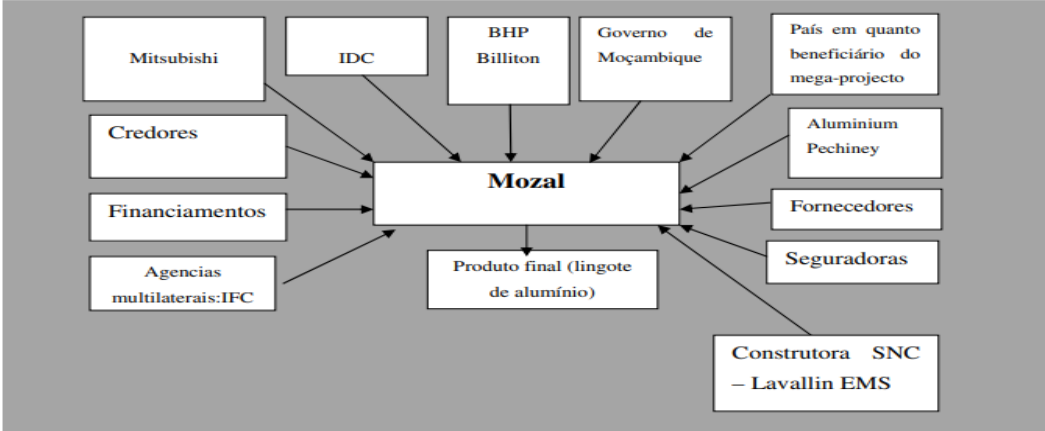
- There is little more of seven thousand (7000) DU's (Documento Único) whose processing was only possible with the allocation of four employees for the purpose, in the period of April and September. Of this lot, there was a doubt of 13.46 million meticaís, duties and other customs duties that had no sign of liquidation by the respective debtors.
- Disregard of several customs control and landing procedures, not only at Mozal but also at the IFZ-Industrial Free Zones of Beluluane and Matola Industrial Port, due to the lack of an effective presence of Official Customs (which still exists), despite the proposals and recommendations made accordingly.
- There were already some positive effects particularly with regard to the reduction of incorrect practices and the increase and the increase in revenue collection levels, whose monthly average is currently above twice the average for the first five months of the year.

Mozal contractual relationship between financiers and shareholders seated on the Build, transfer, and Operate (BTO) model, where BHP Billiton was responsible for the construction, transfer and operation of the project, but always as the project owner (Domingos, 2010).

Table 1 shows all stakeholders involved in this project and each had their own responsibilities and interest insured with a contract. The injection of Capital was a responsibility of the following: Mitsubishi Corporation, IDC, Billiton and the Mozambican government. The government with local regulating entities dealt with the construction with the perspective to use the AP30 technology from Aluminium Pechiney to produce Aluminium. The financial part was a responsibility of IFC – International Finance Corporation from World Bank, CDC, DEG, DBSA, and EIB.

The company Billiton being the largest investor, followed by IDC - the second largest shareholder which has the Government of South Africa as his only shareholder - and they determine the Board of Directors, Board powers and obligation of IDC. However, IDC is financially independent and does not rely solely on governments funds for its operations. The third largest shareholder is Mitsubishi Corporation with top ten shareholders like Japanese finance houses and banks, being a Japanese general trading company – they are the biggest nonferrous metal investment in an African continent and first investment in an aluminium smelter in Africa by Japanese Company. The fourth shareholder is the Government of Mozambique which paid for its 4% share cash from financial assistance received from the European Investment Bank (EIB), (Gilbert Pretorius, 2005).

Figure 1: Mozal Stakeholders



Source: (Domingos, 2010)

According to (James, 2001), BHP-Billiton has sold down 85% preferential rights on the Mozal expansion (which will be financed 40% by equity and 60% by debt) to allow its shareholding to

follow that of the first phase. Billiton holds 47%, Mitsubishi 25% and South Africa's Industrial Development Corporation (IDC) 24%. The government of Mozambique hold 4%. "In view of the highly successful first phase of Mozal, there was a strong desire by our partners, particularly Mitsubishi, to participate. Billiton was put under pressure to give up some of our rights," said Rob Barbour, chairman of Mozal.

The following list are the names of the companies that Mozal hired their services, (Langa & Wilhelm, 2006):

Metalworking:

- EDIMETAL;
- Genrec/Cometal;
- Kempe – metech;
- AgroAlfa, SARL;
- A FORJADORA – Grupo Joao Ferreira dos Santos;
- Kanes Alfaias Agricolas;
- Escopil Internacional, LDA;
- MEMA, Lda;
- Mecano Metal Mocambique, Limitada – TRI-M.

Civil Construction:

- WADE ADAMS Construcoes, LDA;
- Marcleusa Construcoes;
- Panos e Vedacoes;
- Premap, SARL;
- CETA;
- Construtores Chemane.

Electronics:

- TECNEL Services;
- Soradio Lda/ AC Electrical;
- DIESEL-Electrica Moç. Lda.

Manufacture and rental and/or sale of equipment and/or parts:

- DICKINSON MOZAMBIQUE;
- Topack Moçambique, Indústria de Plásticos.

Carriers:

- Omega – serviços (Zona Franca) Limitada;
- Trans F.M.S;
- Transporte de Mercadorias e Venda de Materiais de Construção;
- Transportes Naiene;
- Mocargo – Empresa Moçambicana de Cargas, S.A.R.L.;
- CORREDOR TRANSPORTES;
- TRANSPORTES LEAO;
- Avis Rent-a-Car;
- Trans Austral, LDA.

Cleaning:

- Cinderela Laundry Service;
- IMOVISA;
- Limpa Tudo;
- CITY CLEANNERS, Servicos de Limpeza.

Air conditioning:

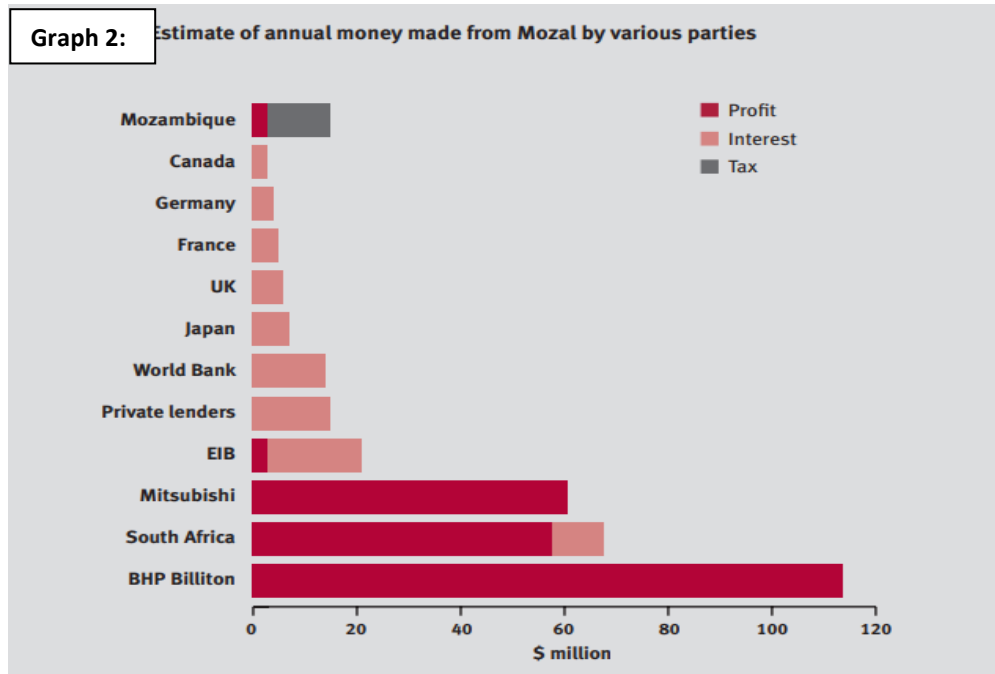
- SOCLIMA;
- DELTA Trading;
- Desaparecidas / Falidas;
- CPA Investimentos Limitada;
- Metal Mecânicas;
- MANGESERV – Manutenção Geral, Engenharias e Serviços.

Security:

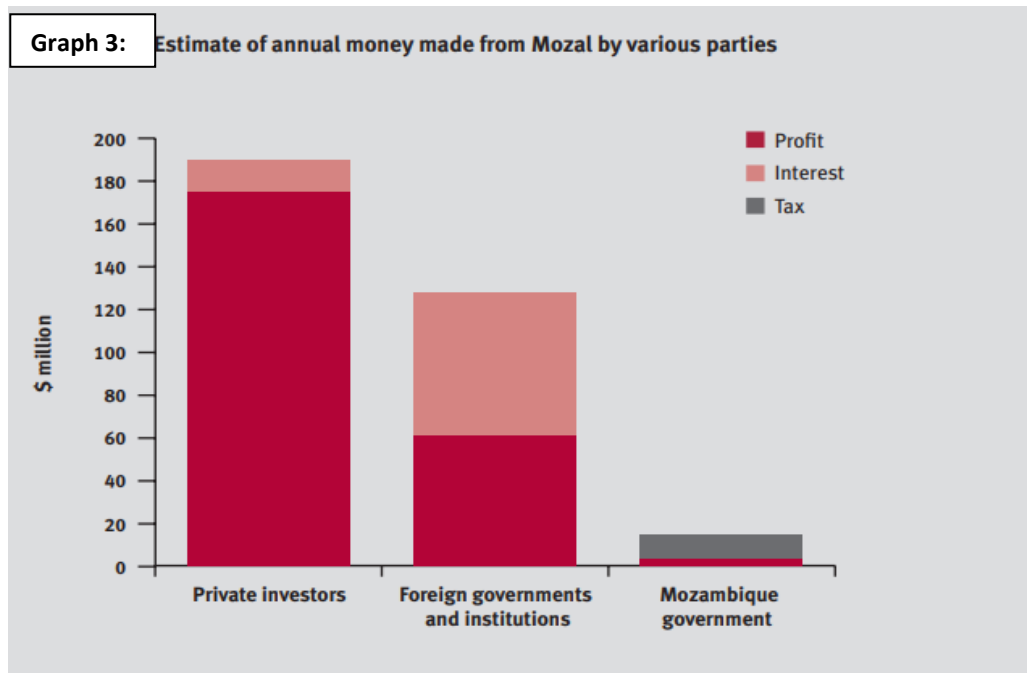
- G4S

Graphics:

- Criativa Sociedade de Serviços Lda;
- Indirectos Isolados;
- SOGIAL – Sociedade Geral de Alumínio Lda



Source:(Jubilee Debt campaign UK, 2012)



Source: (Jubilee Debt campaign UK, 2012)

2.5.1 Vision

Mozal's vision is to be the leader in low-cost aluminium foundations and be the employer of choice. At Mozal they recognise the importance of the Collaborators as the foundation of the business and key for the success, people who share same vision and values.

2.5.2 Values

- ❖ Take care – We care about people, the communities we're a part of and the world we depend on
- ❖ Trust – We deliver on our commitments and rely on each other to do the right thing
- ❖ Unity/togetherness – we value difference and we openly listen and share, knowing that together we are better
- ❖ Excellence – we courageous and challenge ourselves to be the best in what matters

Each decision made by the County of administration using the balanced scorecard is taken in consideration the needs and expectations of their Stakeholders and Shareholders, making sure

that they are secured and always aware of what is happening in the company in 4 annual meetings or minutes, how it is being managed and how their contribution is being used. One of the big responsibilities of this council is to present financial documents such as Income Statements, balance sheets and the assurance of the utilisation of international financial reporting standards. The financial statements are always signed by 3 representatives of the shareholders from BHP Billiton, IDC and Mitsubishi Corporation.

The External Auditing is a responsibility of KPMG Auditores e Consultores, SA. Following all international norms, it is a Mozambican Company affiliated with KPMG International corporative in Sweden. They prepare Income Statements to be published in the newspaper with their opinions on financial documents based on their Auditing, for a company with the dimension of Mozal they could also provide the financial documents on the internet to open doors for more stakeholders and transmit a transparency, in this method sharing also other important documents of the company like policies. The Auditing is based on the end of financial year 30th June of each year, verifying administrative duties such as: implementation, internal control management and all frauds and error that may occur. BHP Billiton also has its own external auditors that Audit Mozal.

For this External Auditing to occur, the Internal Auditing of the company must:

- Help provide financial information
- Approve and assist in annual internal auditing
- Valuate the independence and objectives of External Auditors
- Analyse the process of risk of management
- Guarantee that External Auditors holds the responsibility to report to the Council as representative of the shareholders

Even though Mozal has shown to be a profitable company, in their 2008 financial year, it reflected a loss of \$115 million due to the economic slowdown and there was a need to cut staff. A fall in the price of aluminium hit the company's profits, and Mozal's power supply from Motraco was cut by 10% after energy crises hit neighbouring South Africa (Reuters, 2009).

2.5.3 Purpose

Mozal's Purpose of Mozal is to develop natural resources, improving people's lives now and for generations to come. The National and provincial officials of SINTIME (an affiliate of OTM) described MOZAL as "a little city within Maputo City". This is because MOZAL has developed its own infrastructure, such as a clinic for the treatment of malaria and HIV/Aids, has fixed and built new roads and bridges, repaired and expanded schools and supermarket buildings, built a new police station in Beluluane and renovated the Matola Police Headquarters, plus given a donation of four new vehicles, improved the sewerage and water supply systems, installed electric power and telecommunications cables, built schools including trainings for teachers, drilled boreholes, water tanks were installed to facilitate the local community's water access and a market with stands. In addition, since people were resettled, MOZAL built houses for them, transport routes were restructured and rerouted and toll road fees are charged but the developments sparked off real estate growth in Maputo and Matola creating Modernisation to Matola district. The excess amount of water and electricity energy MOZAL consumes will later be a problem for future generations, the impact of which is yet to be seen (Gilbert Pretorius, 2005).

2.5.4 How they work

The work conducts are governed by standards and procedures that are mandatory for both contractors and effective workers. During labour hours Mozal applies safety initiatives for workers like; Zero alcohol and drug tolerance (drug and alcohol stat at beginning of shifts), Increased vehicles payloads, Random speed checks (inside Mozal premises and on public roads), Noise reduction (all trucks haulers have silences), Behavioural safety observations, Outcomes (vehicle maintenance and tyre management), Fatigue management (nap sessions, physical exercise in group specially for drives before they take the steering wheel). Regarding working hours, all workers arrive 07h AM at the workplace and have a small safety talk. Distribution of tasks is until 07h30 AM maximum. Exit time for contractors is 04h PM, giving time for a quick bath and get the staff transport provided. 04h30 PM is exit time for level 1 and 2 , and 05h PM for level 3, 4, 5, and 6.

Source: anonymous worker, (Quivy & Campenhoudt, 1995) mentions a need of exploratory interviews has the function of revealing certain aspects in the investigation that were not thought of, giving an opportunity to create relevant topics and information.

The policy of Mozal is to encourage good communications between the employees and employer besides distributing regular disclosure of important information by intranet and e-mail. Equal rights and in case of disability due to work they will be given a duty based on their new physical condition.

2.5.5 Grievance and Disciplinary Procedure

According to (South32, 2015), Grievance and Disciplinary manual - last version nr 3.0, was created on 17 November 2015 with a valid date 29 December 2018 by the department of Human Resources of Mozal.

The Grievance and Disciplinary manual seeks to ensure consistency in the application and handling of grievance and disciplinary processes. The rules apply to all employees, with the purpose of disciplining employees. For them to know and understand that standards are required of them. Efforts should be made to correct employees' behaviour through a system of graduated disciplinary measures such as counselling and warnings. Depending on how constantly the worker is warned and depending on the reasons, a disciplinary process is activated and may result in suspension without payment. The most offences and sanctions that may mostly occur are; Absenteeism, Disorderly behaviour, Email / Internet abuse, dishonestly, safety, sexual harassment, Industrial action, performance and Alcohol & Drugs.

❖ Grievance Procedure:

To ensure that grievances are resolved in a timely manner and as close to the point of origin as possible. Including initiating corrective action where behaviour or performance of an employee and / or employees is unacceptable.

❖ Disciplinary Procedure:

Must be lawful, fair, reasonable and consistently applied to all employees and adopting all disciplinary rules that establish the standard of conduct required from the employees and the manner in which any non-compliance will be dealt with.

2.5.6 Their manual procedure contains guides to:

- ❖ Informal Grievance
- ❖ Formal Grievance
- ❖ Just culture
- ❖ Preliminary Investigation
- ❖ Disciplinary action – minor and moderate violations
- ❖ Disciplinary action – cross violations
- ❖ Internal appeal
- ❖ Records capture and administration
- ❖ Criminal action
- ❖ Guideline of sanctions

Figure 2: How Mozal work



Source: (South32, 2021a)

2.5.7 Mozal breakthrough

A Mozal breakthrough describes how they, Mozal make a difference from other Companies.

Figure 3: Breakthroughs



Source: (South32, 2021b)

2.5.8 Diversity

Our workers need to reflect the countries and communities we operate in. Our commitment is to create an inclusive workplace by setting ambitious diversity targets, focusing on gender and ethnicity by:

- ❖ Campaigning to attract female and indigenous applicants, particularly in core disciplines such as engineering
- ❖ Implementing flexible work arrangements
- ❖ Educating our leaders on how to manage a diverse workforce and to recognise unconscious bias
- ❖ Allocating additional funds to decrease the gender pay gap.

2.5.9 Exploration

The main idea of Mozal is to always expand their work and services. Investing outside their comfort zone, but making sure they match with their capabilities. The exploration activities are carefully selected to have a high chance of success and spread around the world including places not yet operated.

2.5.10 Marketing

The market team of Mozal works on all operations; it is managed in Singapore with support offices in London, South Africa, and Australia.

They are responsible for:

- ❖ sales and pricing
- ❖ purchasing strategic raw materials, taking advantage of market intelligence and our economies-of-scale, to get the best price for our operations
- ❖ defining the company's view of the commodity markets
- ❖ working closely with the regions to make the best 'resource-to-market' decisions
- ❖ Managing logistics across the supply chain to efficiently get our product to our customers.

2.5.11 Health risk management

Insuring that all workers are physically and mentally able to perform their work tasks is important. The fit work programs include medical assessment and assistance, fatigue management and risk-based drug and alcohol programs. Potential health risk at Mozal are due to exposure to carcinogenic substances (silica, diesel particulate matter, nickel, and coal tar pitch volatiles), other airborne contaminants (coal dust, fluoride, lead and manganese dust) and potential exposure to noise. Musculoskeletal disease (MSD) and noise-induced hearing loss (NIHL) remain the most commonly reported occupational illness by our workers.

2.5.12 Legislation

a) **Law n° 3/93 of 24th of June: Law of investments:**

With the growth of investment in Mozambique and in accordance with country's current socio-economic reality, there was a need to promote improvements in the implementation of national and foreign investment projects in order to make them more attractive to investors. It is in this context that the regulation of the investment law was approved (Boletim da Republica, 1993; Caldeira, 2010).

In this Law it defines Foreign direct investment (FDI) as any form of foreign capital contribution, valuable in monetary terms which constitutes own equity capital or resources at the own account and risk of foreign investor, brought from external sources and to be used in an investment project for carrying out an economic activity, through a company registered in Mozambique and operating in Mozambique territory, (Gilbert Pretorius, 2005)

The public investments financed by funds from the general budget of the state and investments of any social nature are not covered by this law and in carrying out business activities, foreign investors, employers and workers will enjoy as well as nationals, the same rights and will be subject to the same duties and obligations enshrined in the legislation in force in the republic of Mozambique, (CPI - Centro de Promoção de Investimentos, 2014).

This law brought positive aspects; it came with some obligations for the investors in order for him to proceed with the project and stay in compliance with some rules.

This where:

- The investor must at least make a minimum direct investment of two million and five hundred thousand metical;
- No inferior annual income of seven million and five thousand metical from his activities;
- Annual exportation of goods and services with a minimum or equivalent to one million and five thousand metical and;
- Must follow the planning and monitoring implementation of how special economic zones and Industrial free zones.

- Provides at least 25 direct job vacancies to nationals who are enrolled in security services from the second year of activity.
- The transfer of profits and dividends abroad is allowed, with prior authorization from the bank of Mozambique and provided that the investments have been previously registered with the bank of Mozambique and after payment of the taxes (Boletim da Republica, 1993)

Other objectives of the law of investment are:

- Expand and improve national production;
- Create professional Mozambican business partners;
- Expand economic infrastructure;
- Increase employment and skills;
- Improve technology and entrepreneurial productivity;
- Increase exportation and reduce importation;
- Improve domestic market;
- Direct or indirectly increase contribution to government budget revenue.

b) Decree n° 14/93 of 21st July (altered with Decree n° 36/95 of 8th August) – Regulation of law of investments:

This Decree is responsible for coordinating the process of investments and creations of the institutions that will be dedicated to promote investments and provision of advisory services to the Government agency in matters of investments. They will define activities for public sector; private sector; fixed amount of direct investment in projects; establish rules to value investment; deadlines; monitoring; define levels of competence; establish rules for issuing certificates of investment; and rules of communication and correspondence and resolution of possible complaints in connection with matters of investments, (Conselho de Ministros Moçambicanos, 2020)

c) **Decree n° 45/97 of 23rd December – creation of the industrial zone of MOZAL – ZFIM:**

Within the scope of law n° 3/93 of 24th June, the law of investments was submitted to the council of ministers in order to obtain the authorization request for the project MOZAL thus making it necessary to create the Free Trade Industrial Zone. It is located in Beluluane , Boane district in the province of Maputo with 138 hectares and a 6.8 hectares in Maputo bay port and among other activities related, they will focus on construction and operation of aluminium smelter for exportation (Boletim da República, 1997).

Mozal has some benefits which are:

- All exportation and re-exportation are exempted from export registration bulletin;
- Mozal is authorized to import with 0% cost vehicles to transport workers and materials that will be used in the company;
- The monetary gains resulting from its activity are exempted from the Industrial contribution and complementary taxes;
- Foreign workers are exempted in the first five years with a 40% discount on the income tax from their work;
- Exempted from urban building tax contribution;
- They are allowed to move foreign currency accounts outside Mozambique in the name of the company in the national bank system: receive sales revenue; receive payments from insurance companies; capital contributions; disbursement of foreign loan; payment of security prize; payment of external debts; other operational expenses relating to investment and payment to dividends.

d) **Decree n° 12/93 of 21st July (altered with decree n° 39/95 of 2nd August and Decree n° 45/96 22nd October) – Code of fiscal benefits:**

The investments carried out in accordance with law n° 3/93¹² of 24th June is to allow investors to enjoy exemption on Import rights, reduction of the industrial contribution and complementary tax plus deductions to industrial tax, under the terms and conditions set

¹² Law n° 3/93, (Boletim da Republica, 1993)

out in this decree.

For the purposes of the provisions of this law, it's considered new investors those with new constructions and installations (Expansion; Rehabilitation or modernization and constitution of a new company due to reorganization, sale of another or others; existing, (Boletim da República, 1997).

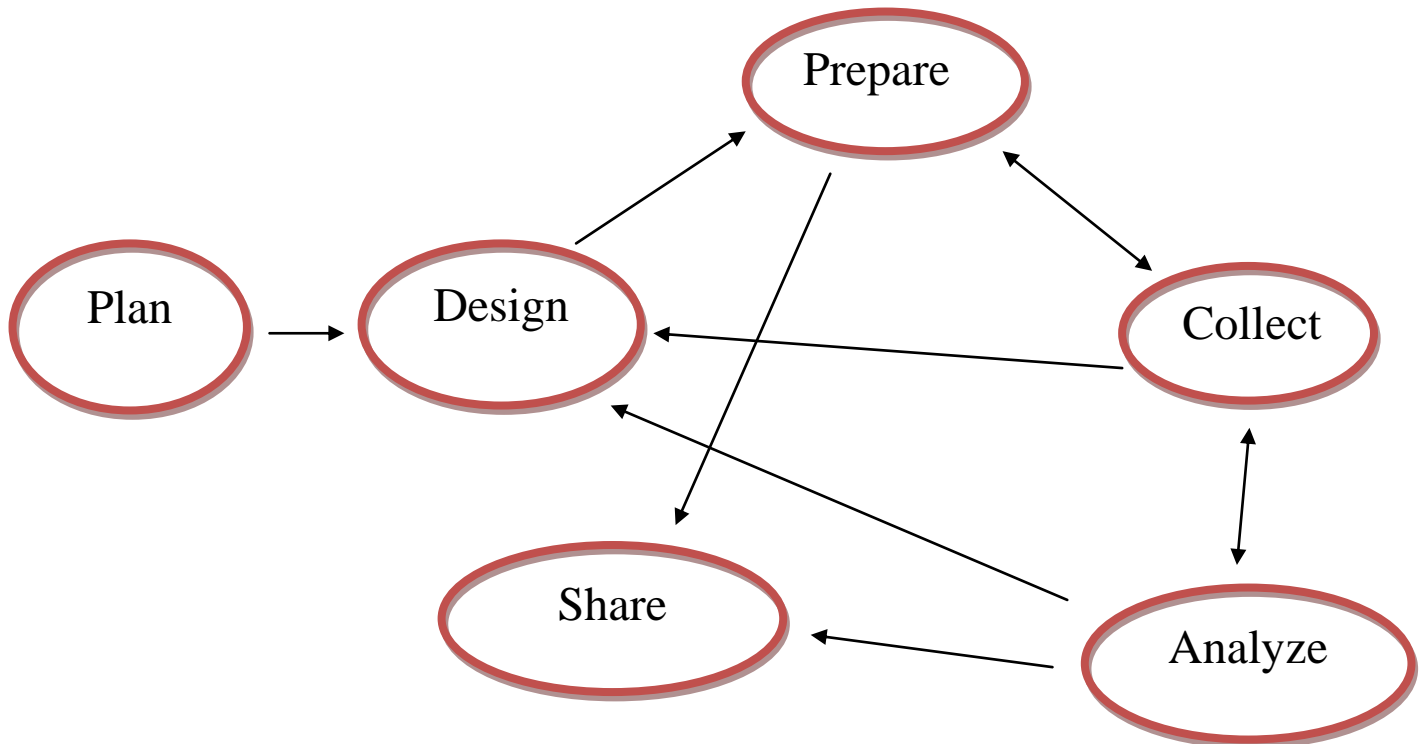
e) **Decree n° 18/93 of 14th de September (altered with decree n° 38/95 of 8th August) – Regulation of Industrial free zones:**

Are considered to be zones of general economic activity, specifically delimited and governed, controlled by special regimes of the government that allows entering of goods, circulation, transform and leaving the country buy are totally exempted from tax, customs or foreign exchange obligations (APIEX Moçambique – Agencia para a promoção de Investimento e Exportações, 2020).

CHAPTER III

3 Methodology

Figure 4: Case Study Scheme



Source: (Yin, Zhou, & Xia, 2017)

- **Plan:**
 - Identify research questions and case study
 - Decide to use case study method
 - Understand Strengths and limits
- **Design:**
 - Define what to study
 - Develop theory
 - Define procedures
- **Prepare:**
 - Organise the material to be used
 - Set priorities, what to start first

- **Collect:**
 - Collect all necessary material according to study
- **Analyze:**
 - From the collected material, select the most relevant to create draft
 - Analyze and organise the draft
- **Share:**
 - Share your final work with the interested public

The above graph represents one of the social science methods used by the author Robert K. Yin to conduct a research. Some other ways include experiments, surveys, histories, and economic and epidemiologic research. Each method has its own advantages and disadvantages depending on the type of research question, the control an investigator has over actual behavioural events, and the historical phenomena. Case studies are best methods to deal with research that has a ‘how’ and ‘why’ question to explain with more details how some social phenomenon works, this distinguishes from other social science research. They are even found in economics, in which the structure of a given industry or the economy of a city/region for example may be investigated and the case study method is not only a form of qualitative research but also a mix of quantitative method. The best way to select the case is to be sure that you will have sufficient access to potential data whether to interview people, review documents, or make observations in the field. When designing the case study we have to consider that it is much more than a work plan, the main purpose of the design is to help to avoid the situation in which the evidence does not address the initial research questions. In this sense, a research design deals with a logical problem and not a logistical problem, (Yin et al., 2017) .

In the other hand the Author John Gerring (Gerring, 2004), published a paper with the aim of clarifying the meaning, and explains the utility, of the case study method, a method often practiced but little understood. He argues that Case Study is best defined as an intensive study of a single unit with an aim to generalize across a larger set of units and they rely on non-case study research.

A case study method is also used to systematically develop a pattern model of online searching behaviour. The study design is flexible, analyses are determined by subject matter, and specific

procedures are decided while the study progresses. Usually case studies is a research method appropriate to investigate phenomena when (1) large variety of factors are involved, (2) no basic laws exist to determine factors included, (3) when factors can be directly observed, and this application develops a comprehensive model describing patterns of behaviour, however, was first carried out in the study of online searching style, (Fidel, 1984)

Another Auxiliary method is the exploratory readings and interviews; they should help to form a research. The readings helps to balance the information related to the initial problem; the interviews contributes to certain aspects that rectifies the way of research and reading materials that increases the framework for exploratory interviews. This exploratory interview saves time and energy in readings and construction of hypothesis and observations, having the function of revealing specific aspects that the investigator would not have thought, (Quivy & Campenhoudt, 1995).

These three questions must be asked in order to manage exploratory interviews:

- With whom is it useful to have an exploratory interview?
This can be Investigators, teachers, specialists, and the public.
- What does the interview consists of and how should they be performed?
Consists of compiling many information's to later be attentively selected and they can be recorded, taken notes and even pictures.
- How to explore them in order to get a best result?
There must be a plan of priorities of information and a map or schedule as a guide to know where best to start and finish the investigation, (Quivy & Campenhoudt, 1995)

Going back to the topic of the Case study we can ask ourselves, what can we consider a developing country? This question can result in many varieties of answers and some can even say that they are countries or regions that have economies with a lower level comparing to North America or even European countries, making them underdeveloped.

According to (Rist, 2008), Development Theory lead to the hypothesis that the period from the end of the Second World War to the end of the Soviet empire was marked by two forms of 'development': the first kept up the stock belief that inspired the extension of market society and

its colonial expression; while the second was more akin to religious messianic in its voluntarism enthusiasm to establish at once the ideal of a just and affluent society. With all this said we can still persuade ourselves that there is a better life after ‘development’.

The questions to ask about a country’s development are therefore: What has been happening to poverty? What has been happening to unemployment? What has been happening to inequality? If all three of these have declined from high levels then beyond doubt this has been a period of development for the country concerned. If one or two of these central problems have been growing worse, especially if all three have, it would be strange to call the result “development” even if per capita income doubled, (Todaro & Smith, 2015).

In the other hand the Author William Arthur Lewis (Lewis, 1971; Tignor, 2006), says that a capitalist sector develops by taking labour from a subsistence sector which is governed by informal institutions and social norms so that producers do not maximize profits and workers can be paid above their marginal product. With this development it results in higher returns of capital which can be reinvested in capital accumulation and expand employment by drawing further labour from the subsistence sector.

In the book of Immanuel Wallerstein, *The Modern World System* 1974, he argues that the modern economic control of the world order by a dominating capitalist centre (core)¹³ in system economic and political relation to peripheral¹⁴ and semi-peripheral¹⁵ world areas (Wallerstein, 2004).

The so call poor countries are mostly known to be poor because the leaders make wrong choices creating poverty for the country and wealth for their personal satisfaction, getting it wrong by mistake or ignorance but on purpose but to understand this, as said by (Acemoglu & Robinson, 2012) , we would have to go beyond economics and expert advices on decision making.

¹³ Core countries are usually recognized as wealthy states with a wide variety of resources and are favourable location compared to other states. They have strong state institutions, powerful military and powerful global political alliances, (World Population Review, 2021)

¹⁴ Periphery countries possess less share of the world’s wealth, (WorldAtlas, 2018a).

¹⁵ Semi-periphery countries are the mostly industrializing, capitalist countries which are positioned between the periphery and core countries, (WorldAtlas, 2018b).

Nations fail economically today not because of their geographical position or culture but because of malfunctioning extractive economic institutions which does not create any savings, poor education system, poor investments in public services and innovation especially in technology.

As long as the extractive institutions function with bad management poor countries with still delay on economic growth. The creation of extractive institutions is a type of mechanism that controls the power of the state and the wealth that it generates, avoiding the benefits to fall in the wrong hands; this creates unconstrained power and great income inequality.

The solution to economic and political failure of nations today is to break the vicious circle (a reconstruction of old regime), to transform extractive institutions into inclusive institutions, already implemented by so called rich nations with democratic regimes, has functioning markets and human rights. The inclusive institutions promote equal rights, opportunities, voice, access to resources and services, non-discrimination and equal entitlements (GSDRC - Governance and Social Development Resource Centre, 2021) .

Most of the post independence leaders made things worse as they assumed leading position of colonial era by moving into their residences, used colonial sponsorship networks and employed with the same clause in order to extract the same resources. This created low expectation from international community who thought that the postcolonial would create economic growth by new planning and opening immediate doors for private sectors which was only present in rural areas with no leak with the present government.

Economics as its said in (Todaro & Smith, 2015) is a social science. It is concerned with human beings and the social system by which they organize their activities to satisfy basic material needs (e.g., food, shelter, and clothing) and nonmaterial wants (e.g., education, knowledge, spiritual fulfilment).

Africa in general at some point did not embrace the advantages for their institutions on opportunities that where available by industrial revolution, falling behind on the evolution of technology, political development and prosperity.

Taking in consideration the primary topic of this Theses, and going back in time so see how the Aluminium was considered a potential investment, we can say that it began in the years 1950s where the production started increasing by a factor of 13 making aluminium the most widely used non-ferrous metal and in 1960s in developing countries although with some limitation. In 1998 world-wide production of primary aluminium was about 22 million tonnes per year for the installed capacity of 24.8 million tonnes. Since mid-2001 there has been a global oversupply of aluminium, in 2002 making US the large global producer of primary aluminium. Some of the regions that produce Aluminium are North America, Europe, Africa, Australia, Central and South America, Japan, Australia, Africa (that used coal and hydro-electric energy as their source of energy used to produce), and the Middle East. These plants are, however, still owned by the major producers of aluminium including Alcan, Alcoa and BHP Billiton (The sole owner of the plants in South Africa and the major shareholder of Mozal with headquarters in Britain since 1997 when they listed on the London Stock Exchange and also registered on the Johannesburg Stock Exchange (JSE)). The largest aluminium markets are North America, Europe, and East Asia. The US is the world's largest consumer followed by China (Gilbert Pretorius, 2005).

In 2004 it was noticed that 7% of the total global primary aluminium production now happens in Southern Africa, namely Hillside and Bay side in South Africa and Mozal in Mozambique where in terms of energy consumption, production capacity and permanent labour ration is more efficient. To afford an Industry of this dimension in the country it must have the capability to produce energy then to install. However, even though a cheap energy supply is essential, it is not sufficient to explain the relocation of the industry. A key feature today is that mine and source bauxite and alumina from a variety of countries, produce aluminium in a totally different country and sell the finished aluminium in other markets, for example; bauxite and alumina sourced from the Worsley mines in Australia and the process of manufacturing aluminium occurs in South Africa (ie Hillside and Bay side) and Mozambique (Mozal), where electricity is supplied by Eskom – Electricity Supply Commission of South Africa and MOTRACO – Mozambique Transmission Company Sarl) then end product exported and sold mainly to European and Asian markets (Gilbert Pretorius, 2005).

(Castel-branco & Nuno, 2003) affirms that Mozal has started to think about implementing a model to facilitate access to finance to firms that were awarded contracts, creating a triangular

relationship between Mozal, the bank and the firm concerned. This experiment has been tried with Banco Austral/ABSA, because they had already a positive experience in South Africa.

The biggest error done by Mozal was that it impacted on the environment and pollution. In 2010 and 2011, exhaust fumes from the factory were released directly to the atmosphere without being treated, including hydrogen fluoride, sulphur dioxide, nitrogen dioxide and ozone. This occurred because Mozal shut down the smoke and gas treatment centres at the smelter, in order to deal with corrosion. They guaranteed that the release of pollutants would be below established limits and present no risk to human health and/or the environment. Making things worse, Mozal refused to release the two studies which predicted releasing the untreated gases would not be a health or environmental risk, or release annual reports on Mozal's past environmental performance that says the technical analyses determines that air concentrations of pollutants would be below established limits and would present no risk to human health and/or the environment, (Jubilee Debt campaign UK, 2012).

CHAPTER IV

4 Conclusion

In respect to the Case Study method, we can conclude that this research method can provide guidance for investigations in library and information research. The procedures followed in designing this study, collecting and analyzing the data, or in solving its specific problems are not recommended as general guidelines for all types of research but appropriate for the study of online searching styles, (Fidel, 1984).

Given Robert Yin's background (Phd.D. in experimental psychology, with a dozen publications in the field); his insistence that the case study method be done in conformity with science's goals and methods is perhaps not surprising, but such training and career choice are usually accompanied by an intolerance of the ambiguities, (Yin et al., 2017).

As far as our Topic, Mozambique, after the end of the war lost a historic opportunity to initiate a process of economic growth with more social and spatial equity with an effective reconstruction of the economy in the sense to prioritize the internal market, the essential needs of the population, building a state that will contribute for a better nation capable of creating external relations that defends the interests of the population. In short we can affirm that the microeconomic indicators will get better after the implementation of the Economic Rehabilitation Programme (PRE – Programa de Reabilitação Económica) and specially after General Peace Agreements signed in 4th of October 1992 in Rome (Mosca, 2005).

As for Mozal,(Söderbaum, 2004) concludes that Mozal project is estimated to double the foreign exchange earnings of the Mozambican economy. However, the opportunity cost and relative efficiency of implementing these projects in one of the poorest countries in the world can certainly be discussed. The mega-projects can be questioned merely by their extreme size but by the fact that they only have little effect on permanent employment opportunities for the locals.

Mozal's financial structure and the way in which aluminium production is organised illustrates that the smelter is truly a global company. Aluminium production is part of an integrated cross-

border regional and internationally integrated production system. At the official opening of the smelter in September 2000, President Chissano stated:

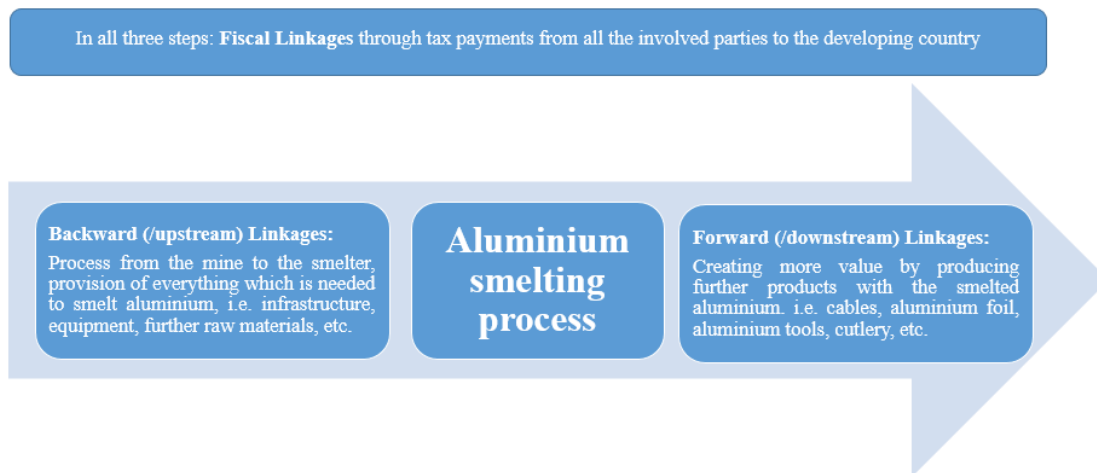
“We Mozambicans are aware that MOZAL is not the solution to our economic and social problems (poverty, unemployment etc), but it is an instrument that we should use, to stimulate the development of small and medium sustainable Mozambican initiatives, with the purpose of our economic integration in the region and the world, at medium and long term ” (Gilbert Pretorius, 2005).

This statement made us understand the importance of MOZAL for Mozambique, it brought positive contribution to reducing poverty increase and decrease the disparity gap within Mozambique and between SADC member states (Gilbert Pretorius, 2005).

The Author (Wilhelm, 2018) said that MOZAL created three main linkages effects in Mozambique through resource-based development:

- Fiscal Linkages: Benefits for the development country through tax income (VAT, company taxes, import taxes).
- Backward Linkages (also called upstream linkages): The supply of all necessary products and services to enable the mining/smelting of the commodity, i.e. construction of roads to the mine, catering for the workers, supply of tools and equipment (this implied employing many nationals and contracting services from other countries).
- Forward Linkages (or downstream linkages): The manufacturing of the commodity into products which are higher on the value chain, i.e. instead of the mere export of lithium, a lithium-rich country could rather export its domestically produced lithium-ion batteries or electronic vehicles. In this scope the company Midal Cables International Limitada with a local branch of Midal Bahrain with its headquarters in the Gulf state was created, located next to MOZAL and receives aluminium exclusively from MOZAL with an estimated purchase of 50,000 tonnes of Aluminium Ingots (this company manufactures and sale Aluminium Rods for electrical and mechanical applications, Aluminium Wire and bare overhead Conductors for power transmission and Distribution), (Midal Cables, 2021).

Figure 5: Visualization of Hirschman’s Linkages Theory



Source: (Wilhelm, 2018)

The Author Cindy Wilhem concludes saying that it also has to be noted that efforts have been made to reform the tax system for megaprojects and other companies in Mozambique. However, it can be established that the exceptional tax breaks for Mozal and other megaprojects based in industrial zones are responsible for a potentially missed opportunity for Mozambique to increase tax income and hence benefit more from megaprojects like Mozal (Wilhelm, 2018).

With that said we can conclude that there are three objectives in Development:

- 1- Increase and improve basic needs such as food, health, shelter and safety.
- 2- To improve basic living standards, this includes more job and better education.
- 3- To allow people to expand their choices and not choose based on other peoples decision.

Overall, the mega-projects contributed not quite one % point to annual average GDP growth over the period. Mega-projects have not been the main source of economic growth nor have all other activities been stagnating once you remove Mega-projects from the equation. At the same time, Mega-projects did contribute a significant growth to the GDP, it now counts with a growth of 2.1% compared to last year, (Statista, 2021); (Sonne-schmidt, Arndt, & Magaua, 2009).

The challenge for this analysis was to assess the economic impacts of Mozal as a company for Mozambique’s economy. The analysis presented does not seek to address or justify Mozal’s role, or that of the ‘Mega-Projects’, in increasing Mozambican economy. Rather, the study argues that

there are clearly areas of impact – direct and indirect – that can be seen to be both positive and negative.

The importance of accepting and investing on big projects in a country opens doors for other investments, creating ongoing opportunities. With this project in specific and to the know condition of the country we can assure that there is a need to take risks and use own resources to carry out any type of project and not forgetting to stick with Timing. “We can also confirm that for the case of Mozambique Mozal accounts a high percentage of the country’s total exports, (Cunguara, 2012).”

(Anderson, 2001) says, The Mega projects are important in many ways. They are export oriented and thus bring benefits in the form of linking Mozambique to the international economy. It will surely not solve Mozambique’s underemployment problem. All of them are capital-intensive and only a limited number of direct jobs are created and will of course have a direct impact on the net supply of foreign exchange, but we assume that the government manages to sterilize the inflows in order to achieve the objectives of strengthening the competitiveness of Mozambican producers in competing against imports and expanding exports. The increase in foreign exchange earnings due to Mega-projects can cause the real exchange rate to appreciate, which would leave the rest of the economy suffering a loss of competitiveness and reduced growth, thus offsetting the gains enumerated above.

CHAPTER V

Bibliography

- Acemoglu, D., & Robinson, J. A. (2012). *Why Nations Fail* (Crown Publishing Group, Ed.). New York: Crown Publishers.
- AICEP Portugal Global. (2011). *Mercados - Informação global*. Lisboa.
- AICEP Portugal Global. (2013). *Mercados - Condições Legais de Acesso ao Mercado*. Lisboa.
- Anderson, P. (2001). The impact of the mega projects on the Moçambican economy. *Gabinete de Estudos, Discussion Paper*, (18), 1–20. Retrieved from http://www.tipmoz.com/library/resources/tipmoz_media/tipcat_files/cat3_link_1115663308.doc
- APIEX Moçambique – Agencia para a promoção de Investimento e Exportações. (2020). Industrial Free Zones - Invest in Mozambique. Retrieved December 29, 2020, from <http://invest.apiex.gov.mz/invest/support-system/investment-catalyzers/industrial-free-zones/>
- Arsyad, A. (2002). MozFund Capital Committee. *Arsyad, Azhar*, (190211614895), 1–97.
- Autoridade Tributária de Moçambique. (2009). *Relatório De Actividades Desenvolvidas Em 2008 E Perspectivas De Acções Para 2009*. Maputo.
- BHPbilliton. (2006). www.bhpbilliton.com. Durban.
- Boletim da Republica. (1993). *Lei 3-93 de 24 de junho*. Retrieved from <https://gazettes.africa/archive/mz/1993/mz-government-gazette-series-i-supplement-dated-1993-06-24-no-25.pdf>
- Boletim da República. (1997). *Boletim da Republica 2001*. 26–27.
- Caldeira, S. &. (2010). *Breves notas à volta do Regulamento do Código dos Benefícios Fiscais*. 29, 1–6.
- Carvalho, T. F. de. (2021). *Economia e Comércio Internacional* (1st Editio; Lisbon Press, Ed.). Lisboa: Rita Costa.
- Castel-branco. (2008). Economista Moçambicano defende abolição de zonas francas | Moçambique | PÚBLICO. Retrieved December 23, 2020, from 21 August website: <https://www.publico.pt/2008/08/21/economia/noticia/economista-mocambicano-defende-abolicao-de-zonas-francas-1339922>
- Castel-Branco. (2004). *What is the Experience and Impact of South African*

Trade and Investment on Growth and Development of Host Economies? A View from Mozambique.

- Castel-Branco, C. N., Massingue, N., & Muianga, C. (2015). *Questions on productive development in Mozambique*. Retrieved from internal-pdf://226.48.252.57/IESE_FAN_EN.pdf
- Castel-branco, & Nuno, C. (2003). *Impacts of the Mozal Aluminium Smelter on the Mozambican Economy (Final Report)*. 1–40.
- Castel-Branco, & Nuno, C. (2008). *Fórum da Sociedade Civil sobre Indústria Extractiva*. 1–18. Retrieved from www.iese.ac.mz.
- Conselho de Ministros Moçambicanos. (2020). *REPÚBLICA DE MOÇAMBIQUE CONSELHO DE MINISTROS*. Retrieved from https://www.mcnet.co.mz/Files/Legislacao/Decretos/Decreto_14_1993.aspx
- CPI - Centro de Promoção de Investimentos. (2014). *Legislação sobre INVESTIMENTOS em Moçambique* (CPI - Centro de Promoção de Investimentos, Ed.). Retrieved from <http://images.mofcom.gov.cn/mz/201409/20140925213515646.pdf>
- Cunguara, B. (2012). An exposition of development failures in Mozambique. *Review of African Political Economy*, 39(131), 161–170. <https://doi.org/10.1080/03056244.2012.657881>
- Domingos, A. A. O. (2010). *Governacao Empresarial Nas Filiais De Grandes Empresas Em Paises Em Desenvolvimento: O Caso Da Mozal Em Mocambique*. ISCTE Business School - Instituto Universitário de Lisboa.
- DW - Deutsche Welle. (2017). Economia moçambicana deverá crescer 5,5% até 2020. Retrieved June 16, 2019, from <https://www.dw.com/pt-002/economia-moçambicana-deverá-crescer-55-até-2020/a-39979471>
- DW - Deutsche Welle. (2019). MOZAL. Retrieved June 16, 2019, from <https://www.dw.com/pt-002/mozal/t-17424557>
- Fidel, R. (1984). The Case Study Method: A Case Study. *Prog Addit Manuf*, 273–288. Retrieved from https://d1wqtxts1xzle7.cloudfront.net/33415874/study_case-with-cover-page-v2.pdf?Expires=1629549648&Signature=IbMJc6LSVyo5ugVFIM-eLwuA6dvnDitGB7n6pDewy5ctuPx6abEm~st3ID5X85O4Pw5lQbTWCx1b5e7cFb3hs9FCJti7qZ61t9Q3FiOc~2hWSLUXQ4DMoZBhKudnoHjL6Tm7OA~Ti95sd8UOF
- Gerring, J. (2004). What is a case study and what is it good for? *American Political Science Review*, 98(2), 341–354. <https://doi.org/10.1017/S0003055404001182>
- Gilbert Pretorius, L. (2005). *The Political Economy of South African Foreign Direct Investment in Mozambique* (UWC - University of Western cape). Retrieved from <http://etd.uwc.ac.za/handle/11394/222>

- Gomes, A. (2016). *Entre trilhos e rodas : fluidez territorial e os sentidos da circulação de mercadorias em Moçambique*. *Entre trilhos e rodas : fluidez territorial e os sentidos da circulação de mercadorias em Moçambique*.
- GSDRC - Governance and Social Development Resource Centre. (2021). What do inclusive/exclusive institutions look like? Retrieved December 20, 2020, from <https://gsdrc.org/topic-guides/inclusive-institutions/concepts-and-debates/what-do-inclusiveexclusive-institutions-look-like/>
- International Monetary Fund. (2018). *República de moçambique*. Washington D.C.
- James, L. (2001). *BHP-Billiton to expand Mozal smelter Aluminium Mozambique Facility to receive extra \$ 1bn of funding to double its capacity*. 1–3.
- Jubilee Debt campaign UK. (2012). *Investigating the Mozal aluminium smelter in Mozambique*. 24. Retrieved from www.jubileedebtcampaign.org.uk
- Langa, & Wilhelm, C. (2006). List of Companies. In *Introduction to e-Business* (pp. 421–422). <https://doi.org/10.1016/b978-0-7506-6731-9.50023-5>
- Lewis, W. A. (1971). Theory of Economic Growth. In Routledge (Ed.), *Economica* (reprint, Vol. 38). <https://doi.org/10.2307/2552853>
- Lindahl, J. (2007). *Mozlink : A linkage program*. Goteborg University - School of Business, Economics and Law.
- Manuel, A., Teresa, D., Herve, J., & Maria, M. (2005). International Monetary Fund Republic Of Mozambique. In *World*. Washington D.C.
- Midal Cables. (2021). Midal Cables. Retrieved March 31, 2021, from <https://www.midalcable.com/group-companies/midal-cables-international-limitada---mozambique>
- Morse, S. (2019). Human Development Index. In *The Rise and Rise of Indicators* (pp. 61–81). <https://doi.org/10.4324/9781315226675-3>
- Mosca, J. (2005). *Economia de Moçambique - Século XX* (Instituto Piaget, Ed.). Lisboa: Instituto Piaget.
- MOZFUND (PTY) Limited. (2000). *Memorandum and Environmental Assessment summary report*. Sandton.
- Neto, A. G. de J. (2010). *New directions of Circulation in Mozambique : the exporting products in the 2010s*. 1–16.
- Portal do Governo de Moçambique. (2015). *Economia / Moçambique / Início* - Portal do Governo de Moçambique. Retrieved June 16, 2019, from <http://www.portaldogoverno.gov.mz/por/Mocambique/Economia>

- Premugy, C. I. C. (2012). *Colectânea de Legislação do Ensino Superior* (Ministério; DICES - Direcção para a Coordenação do Ensino Superior, Ed.). Maputo: Ministério da Educação.
- Quivy, R., & Campenhoudt, L. van. (1995). *Manual de Investigação em ciências sociais* (4th Editio; G. Valente, Ed.). Paris: Gradiva.
- RE - Rom Economics. (2019). The Harrod-Domar Model. Retrieved August 12, 2021, from <https://www.romeconomics.com/harrod-domar-model-explained/>
- Reuters. (2009). Global crisis hits Mozambique Mozal aluminium project. Retrieved June 5, 2021, from February 18 website: <https://www.reuters.com/article/mozambique-mozal-idINLI81628720090218>
- Rist, G. (2008). *THE HISTORY OF DEVELOPMENT* (3rd ed.; Zed Books Ltd, Ed.). New York: Biddles Ltd.
- Robbins, G., Lebani, L., & Rogan, M. (2008). *TNC FDI Firms and Domestic SME Linkages Reflecting on three SADC Case Studies*. Durban.
- Robbins, G., Lebani, L., & Rogan, M. (2009). *TNC FDI firms and domestic SME linkages : reflecting on three SADC case studies*. Durban.
- Sigauque, E. S. (2017). *CAPITALISMO AFRICANO DEPENDENTE: ESTUDO HISTÓRICO-ESTRUTURAL DA ECONOMIA MOÇAMBICANA ENTRE O PERÍODO DE 1985-2015*. Universidade Federal de Santa Catarina.
- Söderbaum, F. (2004). *Blocking human potential: How formal policies block the informal economy in the maputo corridor* (No. W-2004/1). <https://doi.org/10.1093/0199204764.003.0009>
- Sonne-schmidt, C., Arndt, C., & Magaua, M. (2009). Contribution of Mega-Projects to GDP in Mozambique. In “*Dinâmicas da Pobreza e Padrões de Acumulação Económica em Moçambique.*”
- South32. (2015). Grievance and disciplinary procedures. In *Human Resource Management for Hospitality, Tourism and Events*. <https://doi.org/10.4324/9780080966496-20>
- South32. (2021a). How We Work. Retrieved June 2, 2019, from <https://www.south32.net/who-we-are/how-we-work>
- South32. (2021b). Our breakthroughs. Retrieved June 2, 2019, from <https://www.south32.net/who-we-are/our-breakthroughs>
- Statista. (2021). Gross Domestic Product (GDP) Growth Rate in South-Africa. Retrieved June 5, 2021, from Statista website: <https://www.statista.com/statistics/370514/gross-domestic-product-gdp-growth-rate-in-south-africa/>

- Tignor, R. L. (2006). *W. Arthur Lewis and the Birth of Development Economics* (Princeton). <https://doi.org/10.23943/princeton/9780691202617.001.0001>
- Todaro, & Smith. (2015a). *Economic Development (12th Edition)* (12th ed.; PEARSON Education, Ed.). <https://doi.org/10987654321>
- Wallerstein, I. (2004). *World-systems analysis: an introduction* (5. print.). Retrieved from <https://archive.org/details/worldsystemsanal0000wall>
- Wilhelm, C. (2018). *A ' ' star performer ' ' megaproject ? Linkages and the Mozal aluminium smelters in Mozambique (1998-2017)* (Erasmus University Rotterdam). <https://doi.org/10.25609/sure.v4.2847>
- World Bank. (2014). Mozambique Overview. Retrieved April 6, 2021, from <http://www.worldbank.org> website: <http://www.worldbank.org/en/country/mozambique/overview>
- World Bank. (2021). Mozambique Economic Update : Setting the Stage for Recovery. Retrieved April 6, 2021, from The World Bank website: <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/931171614625070870/mozambique-economic-update-setting-the-stage-for-recovery>
- World Population Review. (2021). Core Countries. Retrieved August 13, 2021, from <https://worldpopulationreview.com/country-rankings/core-countries>
- WorldAtlas. (2018a). Periphery countries. Retrieved August 13, 2021, from <https://www.worldatlas.com/articles/what-are-periphery-countries.html>
- WorldAtlas. (2018b). Semi-Periphery Countries. Retrieved August 13, 2021, from <https://www.worldatlas.com/articles/what-are-semi-periphery.html>
- Yin, R. K., Zhou, H., & Xia, H. (2017). *Case Study Research: Design and Methods*. Retrieved from [https://books.google.pt/books?hl=pt-PT&lr=&id=FzawIAdilHkC&oi=fnd&pg=PR1&dq=Yin,+R.+K.+\(2002\).+Case+study+rese arch:+Design+and+methods.+Thousand+Oaks,+CA:+SAGE+Publications&ots=1_-X0boZ-p&sig=WzUUohtnASBJIKSexymGWt2OlZI&redir_esc=y#v=onepage&q&f=false](https://books.google.pt/books?hl=pt-PT&lr=&id=FzawIAdilHkC&oi=fnd&pg=PR1&dq=Yin,+R.+K.+(2002).+Case+study+research:+Design+and+methods.+Thousand+Oaks,+CA:+SAGE+Publications&ots=1_-X0boZ-p&sig=WzUUohtnASBJIKSexymGWt2OlZI&redir_esc=y#v=onepage&q&f=false)

CHAPTER VI

Appendix : Questionnaire

The phrases below express their opinion and information about the company.

Read each statement and, using the scale below, please indicate with an X, their degree of agreement or disagreement with each item. You should give an answer for each questionnaire item

Part I – Personal Information

Tick with (x) on the open spaces according to your situation.

1. Degree of Distribution by Sex

Male Female

2. Age Range

From 25 to 30 years From 31 to 35 years From 36 to 40 years

From 41 to 45 years From 46 to 50 years Older than 50 years

3. Service Time

From 0 to 3 years From 4 to 6 years From 7 to 10 years

From 11 to 15 years From 16 to 20 years From 21 to 25 years

More than 25 years

4. Education Level

Primary Secondary University

Part II – Information about Mozal

General questions:

Answer as briefly as possible.

1. In your point of view, explain how efficient the Grievance and Disciplinary procedure is.

2. Did Mozal Mega project have an important role in the increase PIB in Mozambique ?

() Yes

() No

If the answer is yes please justify.

3. Mention the positive social work of the company.

4. Do you appreciate the Health and safety benefits of the company for the staff?

Agree

Partially agree

Do not agree

Don't have Opinion

Thank You for your Participation