



Assessing the exports of hydraulic equipment in the mining and industrial sector of the Southern African market

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ABSTRACT

This dissertation explores the landscape of hydraulic equipment exports within the mining and industrial sectors of the Southern African market. The primary objective is to ascertain the potential market growth of hydraulic equipment in Southern Africa over the next five years. The study investigates key questions related to market expansion, the influence of global and government investments, industry sectors employing hydraulic equipment, the impact of the African Continental Free Trade Area (AfCFTA), and challenges hindering export market growth. This study delves into the complexities of the Southern African market using a qualitative research approach to analyse a mine as a case study. The findings reveal crucial sectors driving regional market expansion, such as mining in Zambia, LP gas in Mozambique, and agriculture and mining in Zimbabwe. The study also uncovers challenges, including political instability, financial constraints, logistical complexities, corruption, and competition from Chinese imports. This comprehensive analysis illuminates the transformative potential of initiatives like the AfCFTA, highlighting both opportunities and the need for proactive awareness and strategic alignment. The dissertation emphasises the importance of adaptability, ethical business practices, and a deep understanding of regional intricacies for businesses to thrive in this vibrant yet intricate market. In essence, this dissertation serves as a roadmap for future endeavours in the hydraulic equipment export market in Southern Africa. It underscores the significance of strategic planning, ethical conduct, and adaptability, providing valuable insights for businesses aiming to navigate the challenges and opportunities of this dynamic industry.

Keywords: Hydraulic equipment, Exports, Southern Africa, Market, Investment, Competitiveness, Mining Sector, Industrial Sector, Zambia Copper mining, LP Gas, Agricultural sector

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CHAPTER 1

CHAPTER 1: NATURE AND SCOPE OF STUDY

1.1 INTRODUCTION

Hydraulic equipment has been a high-priority commodity in the Southern African market as our mining and industrial sector is the backbone of our economy. The market for this equipment has grown from strength to strength as every organisation tries to optimise their outputs and as the fourth and fifth industrial revolution becomes a reality. The potential of Africa, as a growth market for business remains underestimated and misunderstood (Acha and Landry., 2019:1). Africa has been the talk of the town for some while now, and it is known that Africa is an untapped market for most industries. With Africa's fast-growing population and markets, there is great potential for global business in a slow global growth environment (Acha and Landry., 2019:1). It is expected that the global hydraulics market size will grow from 37.4 billion USD in 2020 to 42.1 billion USD by 2025 (MAM, 2021:216). This postulates the question: *What is the potential of hydraulic equipment in the Southern African market, where will the market head, and what will organisations need to do to ensure that they participate in the future of African economic growth?*

1.2 BACKGROUND

The findings of this study will form the foreground of our research. Still, it is equally important to establish the background of this study (Sachdev, 2018:3). Hydraulic equipment is one of the main tools that is helping the fourth industrial revolution to succeed. Most hydraulic equipment is used to improve efficiency in the mining and industrial sectors. When we look at the literature, we can see that the hydraulic market is on the rise. The hydraulic equipment market is expected to grow by 15.50 billion USD from 2020 to 2025.

Moreover, this market's growth momentum will accelerate at a compound annual growth rate of 4.71% during this predicted period (Technavio, 2022:20). It is also seen that Africa has become an investment hot spot for economic growth powerhouses like

China and European countries. Chinese foreign direct investment (Fin) into Africa grew at an average annual compound growth rate of 18% annually between 2004 and 2016. Foreign direct investment refers to business investments made by entities from one country (China in this case) into another (Jones *et al.*, 2022:24). Thus, Southern Africa is becoming one of the world's fastest-growing and expanding consumer markets. Africa is one of the fastest-growing consumer markets in the world. The consumption of African Households has increased even faster than the gross domestic product (GDP) in recent years (Signé *et al.*, 2018:1). Thus, Africa's fast-growing markets are creating a lot of potential for new opportunities in the African business environment.

When looking at this secondary data of research done in the African market, there are a few gaps and missing answers. The unanswered questions remain: Where will this economic boom occur in Africa? Where has it already started? What do South African exporting companies need to know about the growing African market? And how does one ensure to be a part of this economic growth?

This study aims to break down these questions for companies in South Africa to help them understand how they can benefit from the African Market. If this study can answer these questions, it can help companies enter an entirely new market and grow their businesses exponentially.

The mining and industrial sectors play a pivotal role in the economic development of Southern Africa, making it essential to understand and assess the exports of hydraulic equipment to these industries (Olawumi and Awolusi., 2018: 3). Hydraulic equipment is crucial in these sectors because it provides high power, control, and precision. This literature review examines existing research on the exports of hydraulic equipment in the Southern Africa market, focusing on its significance, challenges, and opportunities.

Significance of hydraulic equipment exports

The Southern Africa region is rich in mineral resources, making mining a cornerstone of the economy. The industrial sector also thrives, further driving the demand for

hydraulic equipment. Hydraulic systems are integral in heavy machinery, such as excavators, bulldozers, drilling rigs, trucks and cranes, commonly used in mining and industrial operations (Custom Fluid Power, 2023). Hydraulic equipment ensures efficiency, safety, and productivity in these sectors, underlining the significance of its exports.

Challenges Faced by Hydraulic Equipment Exporters

The following challenges have been identified in the literature regarding the exports of hydraulic equipment in the Southern African market.

- **Market Dynamics:** The Southern African market is characterised by a mix of developed and emerging economies. Exporters must navigate diverse economic conditions and regulations, which can be challenging (Jebuni, 2006).
- **Competitive Landscape:** There is intense competition among hydraulic equipment manufacturers globally, including those from Europe, Asia, and North America (Hanusch et al., 2019). Local producers in Southern Africa also pose competition.
- **Infrastructure and Logistics:** Inadequate transportation and logistics can hinder the timely delivery of hydraulic equipment to remote mining sites (ITA, 2022).
- **Cost and Pricing:** The region's price sensitivity can pressure exporters to maintain competitive pricing while ensuring quality and reliability (Jebuni, 2006).
- **Political and Regulatory Risks:** The region has experienced political instability and changing regulatory environments, affecting business operations and investments (Jebuni, 2006).

Opportunities for Hydraulic Equipment Exports

The following opportunities have been identified in the literature regarding the exports of hydraulic equipment in the Southern African market.

- **Resource Abundance:** Southern Africa's vast mineral resources offer long-term opportunities for hydraulic equipment exports, especially as mining activities expand (EN, 2018).
- **Technology Transfer:** Collaboration with local industries to transfer hydraulic technology and skills can foster long-term partnerships and market growth (EN, 2018).
- **Sustainability:** As environmental concerns grow, there is a potential market for eco-friendly hydraulic equipment that minimizes energy consumption and reduces emissions (OECD, 2002).
- **Infrastructure Development:** Investments in infrastructure development projects, such as ports and railways, can improve the efficiency of hydraulic equipment supply chains (PWC, 2023a).
- **Skills Development:** Supporting local workforce development in hydraulic technology can create a skilled labour force and enhance the market's receptiveness to hydraulic equipment (PWC, 2023a).

The assessment of hydraulic equipment exports in the mining and industrial sector of the Southern Africa market reveals both challenges and opportunities. While exporters face obstacles related to market dynamics, competition, and infrastructure, they can tap into a resource-rich region and contribute to technology transfer and sustainability initiatives.

The goal of the literature review is to introduce the reader to the various aspects of the hydraulic market in Southern Africa and the importance of exporting in this region. The researcher will establish the parameters of his study and will generate a list of references from sources that have published related literature (Saunders et al., 2019).

According to an article published by the University of Edinburg on September 10, 2021, a literature review is essential to any academic project, as it allows the reader to thoroughly understand the current research being conducted in a given field. It also helps the researcher identify the unknowns in the field (IFAD, 2021). Thus, an in-depth

literature review was compiled in chapter two to understand the current knowledge and expertise within the area.

1.3 PROBLEM STATEMENT

The Fluid Power Association of South Africa (SAFPA) has predicted a justifiable boom in demand for new hydraulic equipment after the two-year-long hydraulic industry slump (EN, 2018). The global hydraulics market is expected to grow from 37.4 billion USD in 2020 to 42.1 billion USD by 2025 (MAM, 2021:216). According to (MAM, 2020:216), mobile hydraulics will hold the largest share of the hydraulics market by 2025.

Assessing the exports of hydraulic equipment in the mining and industrial sector of the Southern African market and investigating the market forecasting for the next five years will help South African companies understand which African countries they should look to as potential business opportunities. By doing an in-depth study, taking historical and current data, you can have accurate predictions for future trends and forecasts of what the market will do.

Business needs forecasting because forecasting gives businesses the ability to make informed market decisions and develop data-driven strategies. Operational and financial decisions are made based on current market conditions and predictions of future market trends. Past data is aggregated and analysed to find patterns and predict future trends and changes. Forecasting allows your company to be proactive instead of reactive (Hall, 2020).

The current market trends show that the Southern African market will grow significantly in the next few years. Therefore, this study will investigate the potential growth and expected challenges in the Southern African market. Furthermore, this study will also explore the effect of foreign investment and the sectors that use hydraulic machinery in the Southern African market.

1.4 RESEARCH OBJECTIVES OF THE STUDY

1.4.1 Primary objective

The study's primary objective is to determine the potential market growth of hydraulic equipment in the Southern African market in the next five years.

1.4.2 Secondary objectives

The research objectives of this study will be:

- To understand and determine the expected market growth in Southern Africa in the next five years.
- To determine the impact of global and government investments in the Southern African market.
- Determine what industry sectors in Southern Africa make use of hydraulic equipment.
- Assess how the African Continental Free Trade Area (AfCFTA) will impact the exports of hydraulic equipment from South Africa to the Southern African market.
- Determine what challenges is affecting the export market growth in Southern Africa.

1.5 RESEARCH QUESTIONS

The following research questions are postulated:

- What market growth can we expect to see in the hydraulic equipment sector in the Southern Africa market in the next five years?
- What impact do global and government investments have on the Southern African market?
- Where is the Southern African market growing.
- What is the African Continental Free Trade Area (AfCFTA), and how will this impact the exports of hydraulic equipment in the Southern Africa market?
- What is affecting the growth of the African hydraulic market?

1.6 RESEARCH DESIGN AND METHODOLOGY

This qualitative research study employs a descriptive case study methodology to investigate the exports of hydraulic equipment in the Southern Africa market. The selection of this research design is grounded in its suitability for comprehensively exploring the research questions through a diverse range of data collection methods and techniques. In line with the qualitative research paradigm, this study prioritizes depth and context with a detailed literature review to provide a rich understanding of the subject matter. Furthermore, this study generates in-depth results and recommendations in the chapters to follow.

Furthermore, the chosen methodology aligns with the iterative nature of qualitative research, allowing for flexibility in data collection and analysis to adapt to emerging insights and refine the research focus. The subsequent phases of this study will detail the specific data collection techniques and analytical procedures, emphasizing the rigour and depth inherent in this qualitative research design.

1.6.1 Data collection

The data collection process for this research is multifaceted, encompassing methods such as interviews and document analysis. These complementary data sources are instrumental in triangulating findings, enhancing the study's credibility, and offering a holistic perspective on the phenomenon of interest.

For the present study, the investigator conducted interviews with selected participants face-to-face or through Microsoft Teams while meticulously adhering to the study's predefined inclusion criteria. A paramount commitment to confidentiality was extended to the participating organizations, whereby the identities of all individuals and entities involved remained undisclosed in the ultimate published document. It is imperative to underscore that the data collection procedures are aligned scrupulously with the Protection of Personal Information Act (POPIA) requirements. Before the commencement of interviews, participants were presented with a consent letter delineating the data collection process and the ethical considerations underpinning the study. Moreover, it is imperative to highlight that the initiation of data collection was

contingent upon receiving formal ethical clearance from the Ethics Committee at North-West University, a measure taken to uphold the ethical integrity of the research endeavour.

1.6.2 Data Analysis

During data analysis, qualitative data was collected, coded and broken down to identify trends and themes that are linked to the researcher's questionnaire for future analysis (Saunders *et al.*, 2019:651). A thematic analysis approach allows for a systematic yet flexible data analysis approach. The researcher has used computer software like Atlas.ti to analyse his data.

The key findings emerging from the observations are used to demonstrate the potential growth in Southern Africa and the challenges of foreign investment. As well as what countries in Southern Africa show potential for new business development.

1.7 ETHICAL CONTRIBUTION

The consideration of ethics in research is considered one of the most important aspects of the study. This study involves human participants and businesses, studying real-life phenomena and strategies of organisations in the export market, and therefore, research ethics approval must be obtained before starting with data collection (Fleming *et al.*, 2018: 205).

The researcher adhered to the North-West University's code of conduct for researchers throughout the study. In addition, the empirical component of the study only commenced after the researcher obtained ethics clearance from the Faculty of Economic and Management Sciences' Research Ethics Committee at the North-West University, which issued a formal Ethical number for this study (**NWU-00599-23-A4**).

1.8 SCOPE OF THE STUDY

The focal point of this research is Operations Management (OM), a field that delves into diverse dimensions of managerial aspects within business operations and strategic decision-making for future expansion. Additionally, this study aligns with

General Management (GM), incorporating various management perspectives during the primary data collection phase. The specific industry under scrutiny is the hydraulic equipment sector, with a focus on the exportation of hydraulic equipment to the Southern African market, particularly examining global companies utilizing South Africa as a gateway into the broader African market. Geographically, the investigation is centered on companies predominantly situated in South Africa, engaged in the exportation of hydraulic equipment to Southern African nations, including but not limited to Angola, Zambia, Mozambique, Tanzania, Botswana, Namibia, and Zimbabwe.

1.9 LIMITATIONS

This study will contribute to the body of knowledge on the exports of hydraulic equipment in the mining and industrial sectors, but the study comes with limitations. These limitations will create opportunities for further research on this topic.

The core limitation of this study will be the geographical boundaries; the researcher will only focus on organisations based in Gauteng, and this study may not accurately represent the organisations in greater South Africa focused on this industry sector.

Furthermore, the study has a time constraint and can limit the researcher's access to the relevant participants for this study. The data of this study can be considered sensitive and confidential information, which can influence the willingness of organisations to participate in the study and can limit the researcher.

1.10 LAYOUT OF THE STUDY

The layout of this study will be in a five-chapter format.

Chapter 1 -Nature and Scope of the Study

The first chapter of this study dissertation presents the conceptual foundation behind the exports of hydraulic equipment in the mining and industrial sectors of the Southern African market. The chapter also provides a background and overview of the export market.

Chapter 2 -The Literature Review

The literature review of this study will create a theoretical structure for the research and the origin of the argument, problems, and inconsistencies in the exports of hydraulic equipment in the Southern African market. The literature review will aim to understand the research and views relevant to this study and the study outcome.

Chapter 3 -Research Methodology

The research methodology will compose how the research is hosted. This chapter will include a literature review of the different research methods used to explain why the researcher has chosen a qualitative approach for this study.

Chapter 4 -Results and Discussion

The results and findings of the study are discussed in this chapter. This chapter will analyse the data to explain the findings of this study understandably and accurately.

Chapter 5 -Conclusion and Recommendations

The final and fifth chapters of this study will include a conclusion on the study's outcome based on the literature and industry sector findings. Furthermore, recommendations and suggestions are provided for further research.

CHAPTER 2

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

In an increasingly interconnected and globalized world, expanding markets for various industries has become both an opportunity and a challenge (HBR, 2023). The Southern African region, characterized by its diverse economies, rich resources, and evolving trade dynamics, is a compelling destination for international trade and investment (Hanusch et al., 2019). One of the industries that has gained prominence in this context is hydraulic equipment manufacturing and export.

Over the past several decades, hydraulic equipment has demonstrated its indispensable role across many applications, ranging from mobile machinery to heavy industrial processes (Hanusch et al., 2019). Its unique ability to provide substantial force within a compact form factor has propelled its demand and relevance in construction, mining, agriculture, and material handling sectors. This capacity to transmit hydraulic energy into mechanical power has made hydraulic equipment a vital cog in the wheels of various industries (IOA, 2016).

The Southern African market, encompassing nations such as South Africa, Zambia, Botswana, Namibia, and others, presents an intriguing landscape for hydraulic equipment manufacturers seeking to expand their reach. As a region marked by economic diversity, infrastructural growth, and evolving trade agreements, Southern Africa holds the potential to be a lucrative hub for hydraulic equipment exports (SADC, 2023a).

This literature review explores the intricacies and dynamics surrounding the export of hydraulic equipment into the Southern African market. Our investigation will traverse a range of crucial facets contributing to understanding this endeavour. From the foundational hydraulic equipment background and its description as the utilization of pressurized fluids to the multifaceted focus areas such as construction, mining,

agriculture, and transportation, we will delve into the pivotal sectors that form the crux of this export landscape.

Furthermore, we will analyze the growth patterns and projections shaping the future of hydraulic equipment markets globally and within the Southern African context. Notable industry reports and forecasts will guide our exploration of how economic conditions, technological advancements, and shifting trade dynamics intersect to influence the trajectory of hydraulic equipment exports.

The role of South Africa as the gateway into the Southern African markets for international hydraulic equipment manufacturers will be a focal point of our investigation. We will delve into the strategies and considerations original equipment manufacturers (OEMs) adopted to utilize South Africa as a launchpad for their hydraulic equipment exports. The landscape of mergers, acquisitions, and market consolidation within this industry is explored to highlight how companies navigate the competitive terrain (IOA, 2016).

Moreover, we will analyse the factors that influence South African companies' exports, ranging from foreign investment and trade agreements to economic challenges, infrastructure development, and the role of regional organizations such as the Southern African Development Community (SADC) and the African Continental Free Trade Area (AfCFTA).

In synthesizing these diverse threads, our literature review aims to provide a comprehensive understanding of the intricacies, challenges, and opportunities that characterize the export of hydraulic equipment into the dynamic and promising Southern African market. By shedding light on the multidimensional factors shaping this export landscape, we aspire to contribute to a well-rounded comprehension of this sector's growth potential and its implications for domestic and global stakeholders.

2.2 DEFINITION OF TERMS

Hydraulic Equipment

Hydraulic equipment is the use of pressurized fluids to perform a task. Heavy construction vehicles and mobile cranes are typical examples of hydraulic equipment. The hydraulic fluid pressurises various hydraulic motors and cylinders. The fluid is directly or automatically controlled by selected valves, pipes and hoses (McNeil, 1990:229).

Southern Africa

Southern Africa is the southernmost subregion of the African continent, south of the Congo and Tanzania. The physical location is all the countries south of the Congo River basin (WRG, 2012).

Original Equipment Manufacturer (OEM)

An original equipment manufacturer (OEM) is defined traditionally as a company that manufactures products used as inputs to produce another more complex product (Kagan, 2021:3).

Market Growth

Market Growth is the percentage change in the market size over a given period. In simple terms, there is an increase in the number of people who buy a particular product (Nasrudin, 2022).

Foreign Direct Investment (FDI)

Foreign direct investment can be defined as an ownership stake of a lump sum of capital in a foreign company or project made by investors or governments of a different country (Hayes, 2022:5).

Exports

Exports are products produced or manufactured in one country and sold in the market of another country (Segal, 2022:10).

South African Exporting Companies

Companies that manufacture products in South Africa or import products from foreign countries then distribute and export these products to African countries (TWB, 2013).

Global Competitiveness

The World Economic Forum defines global competitiveness as the ability of a country to achieve sustained high growth rates in gross domestic product per capita (TWB, 2013).

Government Investment

Government investment can be described as gross fixed capital formation and capital transfer into a country's infrastructure. Government investment is done irrespective of income and profits (OECD, 2011:74).

Mining and Industrial sectors

- **Mining Sector-** The Mining sector is dedicated to a location to extract minerals from reserves around the world (Brown, 2022). The industrial sector consists of businesses that aid other businesses in manufacturing, producing, and transporting their products (IET, 2022).

The Fourth Industrial Revolution

The Fourth Industrial Revolution can be defined as the fundamental changes in how we live, work, do business and relate to one another. There are four main effects of the fourth industrial revolution on business: Customer expectations, product enhancement, collaborative innovation, and organisational forms (Schwab, 2016).

Compound Annual Growth Rate (CAGR)

It can be defined as the rate of return required for an investment to grow from its beginning balance to its ending or expected balance, assuming that the profits are reinvested at the end of each financial period (Fernando, 2022).

2.3 HYDRAULIC EQUIPMENT BACKGROUND

Over the past several decades, the importance and demand for hydraulic equipment in mobile, industrial, mining, and other applications has continued to benefit from its unique ability to provide a high level of force in a relatively small package. Hydraulic equipment is the conversion of hydraulic energy into mechanical energy (IOA, 2016:1).

A straightforward description of hydraulics is using pressurized fluids to perform machining operations. The hydraulic system uses liquid (usually hydraulic oil) to transmit power. Hydraulic industrial equipment is so commonly used that it's easy for us to overlook it. We see and experience the benefits of hydraulic equipment every day. The dependability of these systems makes them an excellent tool for many different industries that affect our everyday lives (Air & Hydraulic Equipment News, 2020:35).

2.4 FOCUS AREA

Hydraulic industrial equipment is utilized in many of the major industries we rely on daily. For this study, we assess the following industries in the Southern African market: Construction, Landscaping, Mining, Agriculture and forestry, Packaging, Material Handling, and the Transport sector. We will also analyse the growth of these industries, which will influence the exports of hydraulic equipment in the Southern African market. Figure 1 shows our focus area, Southern Africa.

Figure 1: Map of Southern Africa



Description: This study focusses on Southern Africa, portrayed as the green areas in the map (Figure 1).

Source: Swagelok Africa – Southern Africa, 2022.

2.5 WHERE THE MARKET IS HEADING

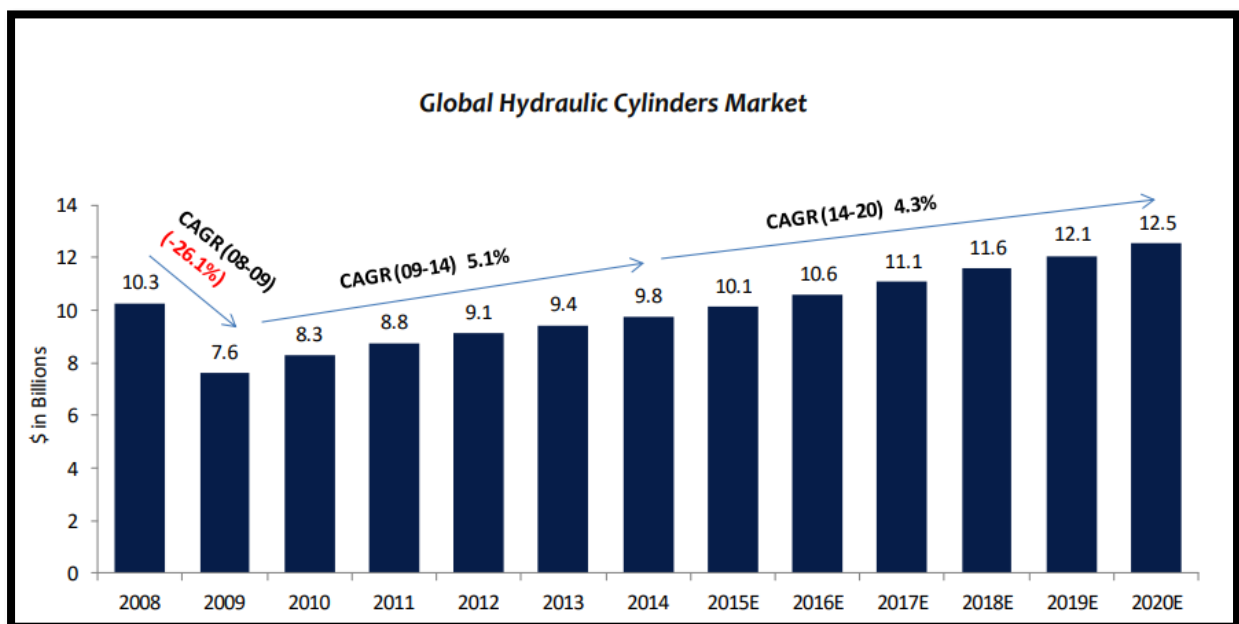
One of the biggest questions any company or industry asks is where the market is headed and how we can be a part of the growth of this market. According to Market Research, it is projected that in 2028, the future hydraulic equipment market will be worth 61.23 billion USD, registering a compound annual growth of 9.11% during the forecast period of 2021 – 2028 (MRF,2021:5).

The market attained a valuation of 46.17 billion USD in 2021 (MRF, 2021: 2). Upon closer investigation of this fact, an imperative question arises concerning the extent to which the Southern African market will play a role in this growth. An exploration into the necessary actions to align with and capitalize on this anticipated expansion becomes paramount.

Hydraulic cylinder markets are looking to capitalize on the expected overall economic and industrial growth, rebounding from a significant downturn during the 2008 recession (IOA, 2016:1). This strategic approach aims to benefit from renewed economic activity and increased industrial production.

Figure 2, from the Inter Ocean hydraulic cylinder industry report, shows that there has been a constant growth in hydraulic equipment on a global scale since 2010 after the recession.

Figure 2: Global Hydraulic Cylinder market



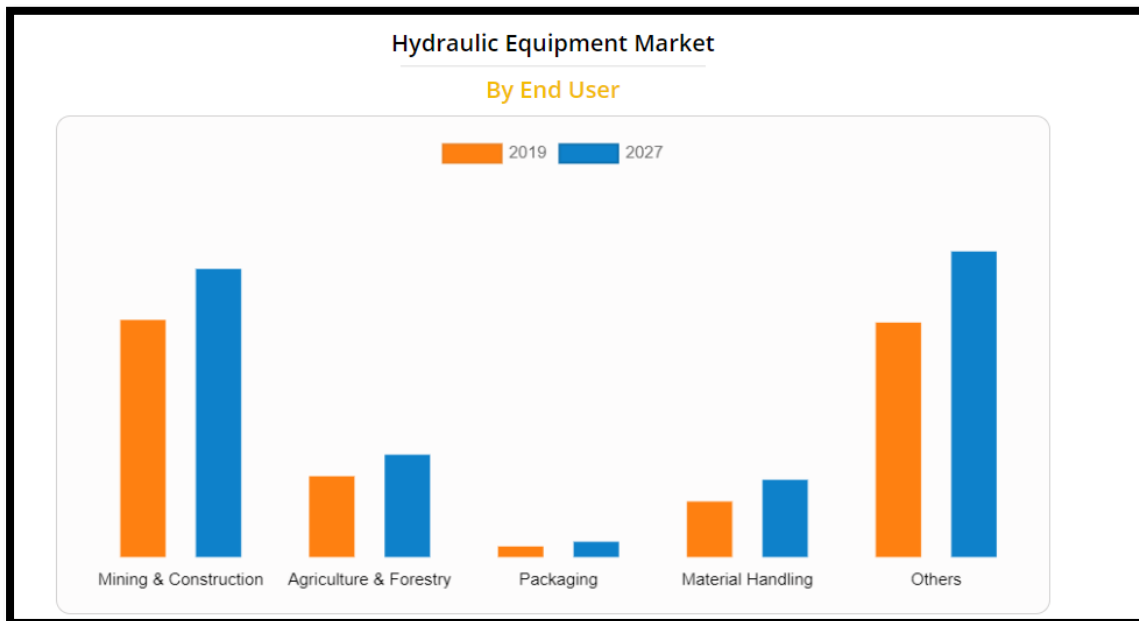
Source: Hydraulic Cylinder Industry Report (IOA, 2016)

These projections exert an influence on the Southern African market, particularly within the hydraulic industry, where stability and growth are contingent upon the performance of sectors such as industrial and mining. The Fluid Power Association of South Africa (SAFPA) has predicted a justifiable boom in demand for new hydraulic equipment after the two-year-long hydraulic industry tumble (EN, 2018).

Yike Fu (2021) stated in The Diplomat that annual flows of Chinese foreign direct investment to the African mining and industrial sectors have risen significantly. The earliest date of official data is 2003. Here, we see a growth from a mere 74.8 million USD in 2003 to 5.4 billion USD in 2018 (Yike, 2021:3).

The hydraulic equipment market is expected to grow in the years ahead. This is clearly shown by the graph below (Figure 3). According to Allied Market research, The LAMEA (Latin America and Africa) is expected to grow most during the predicted period (Digvijay *et al.*, 2020:5).

Figure 3: Growth of Hydraulic Equipment Market



Source: (Digvijay *et al.*, 2020:6)

2.6 WHERE SOUTH AFRICA FITS INTO THE EXPORTS PICTURE

A strong, sustained growth trajectory in Sub-Saharan Africa realised since the late 1980s. Growth is forecast to rise from 2.6% in 2017 to 3.9% in 2022, predicated on product exports and rapidly transforming economies (Shaw *et al.*, 2018:2). While many of these economies are growing from a small and often fragile base, growth is being led by Africa’s trade access to extensive global users of natural resources (Shaw *et al.*, 2018:3).

South Africa has been seen as the gateway into the Southern African markets for many years. Many international companies (OEMs) have seen South Africa as their base camp while exporting hydraulic equipment into the African Market.

Original equipment manufacturers that use South Africa as a basecamp:

- Palfinger
- Fassi
- Liebherr
- HIAB

These companies are leaders in the hydraulic lifting equipment industry. These companies use South Africa as a stepping stone to access the Southern African market (Technavio, 2022:20). Currently, the state of the hydraulic equipment market is fragmented, and the constant need to become competitive in the global market is expected to fuel further strategic mergers and acquisitions consolidation. In addition, we believe interest from private equity sponsors will favourably impact mergers and acquisition activity (IOA, 2016:2).

To understand the export of Hydraulic equipment from the South African market into the Southern African countries, we need to investigate the markets that rely on this equipment. A deeper investigation will have to be done to understand the future trends of the export market into Southern Africa and what global investment will create for hydraulic equipment.

2.7 INTRODUCTION TO THE MINING SECTOR OF SOUTHERN AFRICA

The mining sector in Southern Africa has long been a crucial component of the region's economy and has played a significant role in shaping its history, development, and geopolitical dynamics (Hammel *et al.*, 2000: 50). Rich in mineral resources, Southern Africa encompasses countries such as South Africa, Zimbabwe, Zambia, Botswana, Namibia, and others, each with a unique mining landscape characterized by its mineral endowment, regulatory framework, and economic challenges (Hanusch *et al.*, 2019). This overview delves into the key aspects of the mining sector in Southern Africa, examining its historical evolution, primary mineral resources, economic contributions, challenges, and prospects.

The history of mining in Southern Africa dates back centuries, with indigenous communities engaged in rudimentary mining activities long before the arrival of

European settlers (Hammel *et al.*, 2000: 50). The discovery of diamonds and gold in the late 19th century led to a rapid influx of European colonizers, transforming the region's economy and society. South Africa became a global gold and diamond production leader, shaping its industrialization and labour dynamics (Britannica. 2020).

Southern Africa is renowned for its diverse mineral wealth. South Africa remains a significant producer of gold, platinum, and diamonds. At the same time, Zambia and the Democratic Republic of Congo are important copper producers (Hammel *et al.*, 2000: 58). Botswana is a leading diamond producer, and Namibia is known for its marine diamond mining. Additionally, the region boasts resources such as coal, iron ore, nickel, and cobalt, vital for local consumption and global markets (ITA, 2022).

2.7.1 Economic Contributions

The mining sector has historically been a cornerstone of the Southern African economy (Hanusch *et al.*, 2019). It has generated substantial foreign exchange earnings, employment opportunities, and tax revenues for governments. However, its contribution has varied over time due to fluctuating commodity prices, labour disputes, and evolving regulatory environments (OECD, 2002).

2.7.2 Challenges

The mining sector in Southern Africa faces various challenges. Environmental concerns about water use, pollution, and land degradation are critical, especially given the region's semi-arid climate (PWC, 2023a). Social challenges include addressing labour rights, community engagement, and ensuring local communities benefit from mining activities. Furthermore, economic diversification and reducing dependency on mineral resources remain important goals to mitigate the sector's vulnerability to commodity price volatility (PWC, 2023a).

2.7.3 Regulatory Framework

Regulation of the mining sector varies across countries in Southern Africa. While some countries have stable and investor-friendly regulatory frameworks, others struggle with inconsistencies, corruption, and insufficient transparency. Balancing the interests of

mining companies, local communities, and national development objectives is a delicate task (MMSD, 2018).

2.7.4 Future Prospects

The future of the mining sector in Southern Africa is tied intricately to global demand for minerals, technological advancements, and sustainable practices. As the world transitions toward renewable energy and electric mobility, the demand for minerals like cobalt, lithium, and rare earth elements is expected to rise, presenting new opportunities and challenges for the region's mining industry (OECD, 2002). Governments must prioritize responsible mining practices, technology adoption, and value addition to minerals within their borders (PWC, 2023b).

The mining sector in Southern Africa continues to be a driving force in the region's economy and development. Its historical significance and evolving challenges and opportunities underscores the need for a balanced approach that addresses environmental, social, and economic concerns (MMSD, 2018). By promoting sustainable mining practices, transparent regulation, and inclusive development, Southern Africa can harness the potential of its mineral wealth for the betterment of its societies while safeguarding its natural heritage.

2.8 COUNTRIES IN SOUTHERN AFRICA THAT HAVE SHOWN TO BE PROFITABLE IN THE MINING AND INDUSTRIAL SECTOR

Several Southern African countries have shown notable profitability and presence in the mining and manufacturing sectors. The research has shown the following countries.

South Africa: The nation of South Africa holds a dominant position in both the industrial and mining sectors, owing to its vast mineral resources, such as gold, platinum, diamonds, and coal. It is also well-equipped to manufacture various types of machinery, chemicals, automotive components, and fertilizers (Britannica, 2020).

Botswana: The mining industry of Botswana is known for its exceptional quality of diamonds. The Southern African nation has enacted numerous regulations and

policies to attract foreign direct investment in its mining industry. Botswana also seeks to diversify its economy by developing new industries like tourism and manufacturing (Mining Weekly, 2018).

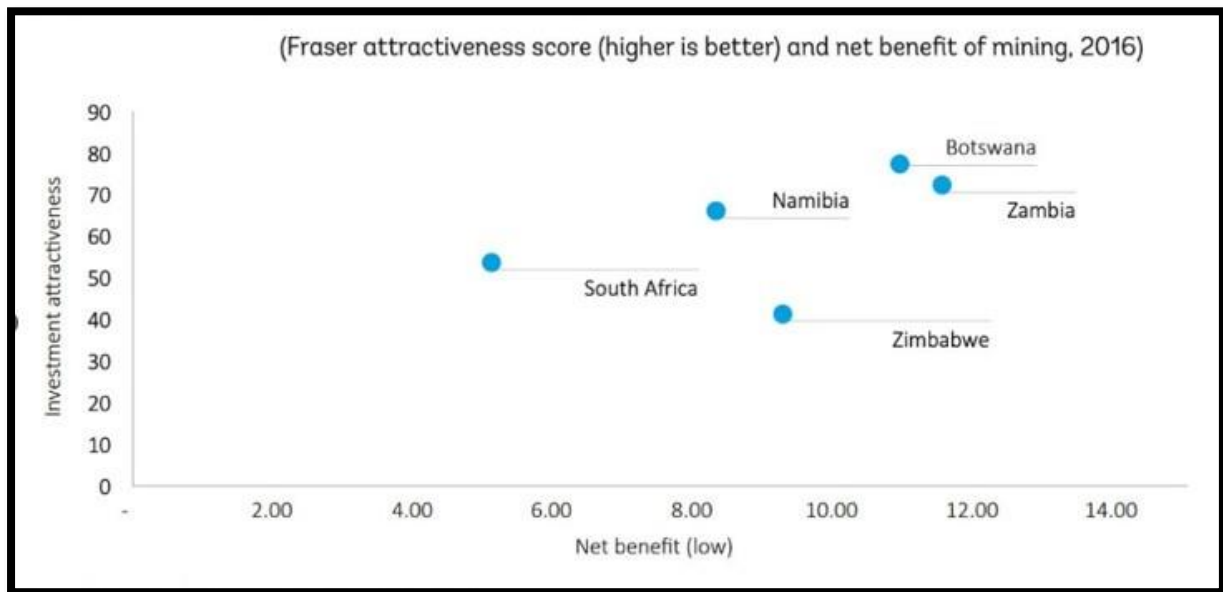
Zambia: The copper-rich nation of Zambia is also a significant metal producer. The mining industry, which accounts for a considerable portion of the country's economy, is one of the government's significant reform efforts (MT, 2023).

Namibia: The mining industry of Namibia is well-established, with deposits of minerals such as uranium, diamonds, and other metals. The country is known for its diamond production and has attracted foreign investors. It also has the potential to explore gas and oil, which could result in additional industrial growth (ITA, 2022c).

Zimbabwe: The mining industry of Zimbabwe is known for deposits of various minerals, such as diamonds, gold, and platinum. The nation is working toward diversifying its mining industry and attracting more foreign investment. It also boasts an extensive industrial base that includes manufacturing, agriculture, tourism, and research and development (ITA, 2022d).

The profitability of industrial and mining sectors can change over time due to various factors, such as economic conditions, commodity prices, and regulation changes. Hence, investors must conduct proper research before taking any action.

Figure 4: Net Benefits as a percentage of gross domestic product



Description: This figure shows the expected benefit of investment in the countries discussed.

Source: (Hanusch et al., 2019)

2.9 THE AFRICAN CONTINENTAL FREE TRADE AREA (AfCFTA)

The AfCFTA is a framework agreement establishing a single market for services and goods across Africa. It was signed on March 21, 2018. It was officially implemented on May 30, 2019. The agreement is regarded as one of the world's biggest free trade zones, with over 50 participating nations (Thomas, 2022).

The primary objective of the agreement is to foster economic integration within the continent and drive sustainable growth. It aims to eliminate non-tariff barriers and tariffs to facilitate the movement of products, services, investments, and people. It also establishes a dispute resolution mechanism (Thomas, 2022).

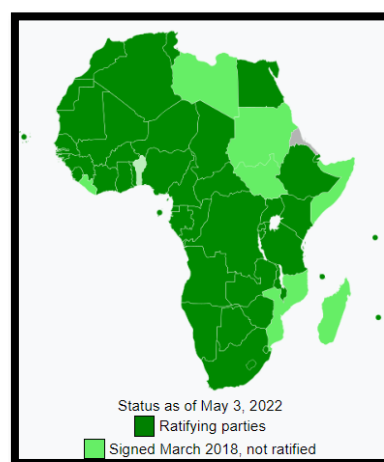
2.9.1 Key features of the AfCFTA

The African Continental Free Trade Agreement (AfCFTA) is designed to establish a unified market among member nations, fostering free access to each other's goods and services through the elimination of tariffs and non-discriminatory trade barriers

(TWB, 2020). Within this framework, regulations governing the origin of specific products are instituted to prevent non-members from entering the free trade zone and to ensure equitable treatment of products from member nations (TWB, 2020). The agreement also addresses trade facilitation by simplifying customs procedures, introducing a digital trade platform, and implementing measures to enhance transparency in cross-border trade (TWB, 2020). Encompassing various sectors, including finance, transportation, telecommunications, and healthcare, the AfCFTA extends its coverage to services and investments while safeguarding investors' rights (Nkomo et al., 2020). Additionally, the agreement incorporates a dispute resolution mechanism, featuring an Appellate Body and a Dispute Settlement Body, to address and adjudicate disputes among participating nations according to agreed-upon procedures (Nkomo et al., 2020).

The potential of the AfCFTA to stimulate intra-African commerce and encourage industrialization is immense. It can also help develop regional value chains and attract foreign investments. Nevertheless, the smooth implementation of this agreement requires proper coordination, infrastructure building, and harmonizing regulations and policies in all member nations (Nkomo *et al.*, 2020).

Figure 5: The Africa Continental Free Trade Area.



Description: In this figure, we can see the areas that have signed and ratified the agreement.

Source: (Thomas, 2022)

2.10 FACTORS AFFECTING THE GROWTH OF SOUTHERN AFRICAN COUNTRIES

Southern Africa struggles with multifaceted challenges that significantly influence its growth trajectory, as revealed by research. Economic hurdles, encompassing high unemployment rates, income inequality, inadequate infrastructure, and limited access to finance, pose impediments to economic development and expansion in the region (ADBG, 2023). Political instability, characterized by corruption, conflicts, and policy uncertainty, further jeopardizes Southern Africa's economic growth and deters foreign investments (TWB, 2023). The region's heavy reliance on exporting commodities, such as oil, agricultural products, and minerals, exposes it to the volatility of commodity prices, impacting revenue generation and vulnerability to external market forces (DBSA, 2023). Climate change and environmental challenges, manifested in natural disasters, floods, droughts, and harsh weather patterns, pose significant threats to livelihoods, water resources, and agriculture, thereby contributing to heightened poverty and hindering economic growth (Maphumulo et al., 2019). Additionally, a skills gap and inadequate education hinder human capital development and productivity growth in Southern Africa (DBSA, 2023). Infrastructure deficits, particularly in transport, telecommunications, and energy, undermine trade, investment, and overall economic growth, leading to reduced competitiveness and increased production costs (Maphumulo et al., 2019). Health challenges further compound these issues. Trade barriers, including non-tariff obstacles and tariffs, restrict intra-regional trade and market access, impeding efficient operations for companies in Southern Africa (IMF, 2023). Initiatives to stimulate market access, economic growth, and integration include simplifying procedures and reducing trade barriers (IMF, 2023).

The factors and challenges that affect growth can vary depending on the country in the region. Each state has its unique situation, policies, and resources, which can affect its economic outlook. A comprehensive strategy involving sound governance, infrastructure development, and regional cooperation is needed to overcome these obstacles.

2.11 SADC AND ITS IMPACT ON SOUTHERN AFRICAN COUNTRIES

The Southern Africa Development Community (SADC) is a regional development organization that aims to promote integration and cooperation among its members. It was established on August 17, 1992, following the signing of a treaty. The previous conference, SADCC, was established in 1980 (SADC, 2023b).

The organisation's primary objective is to promote social progress, economic growth, and poverty reduction in the region. It accomplishes these goals through effective collaboration and integration among its members, particularly in different fields, such as trade, infrastructure, agriculture, and health (SADC, 2023b).

Key features and objectives of SADC include:

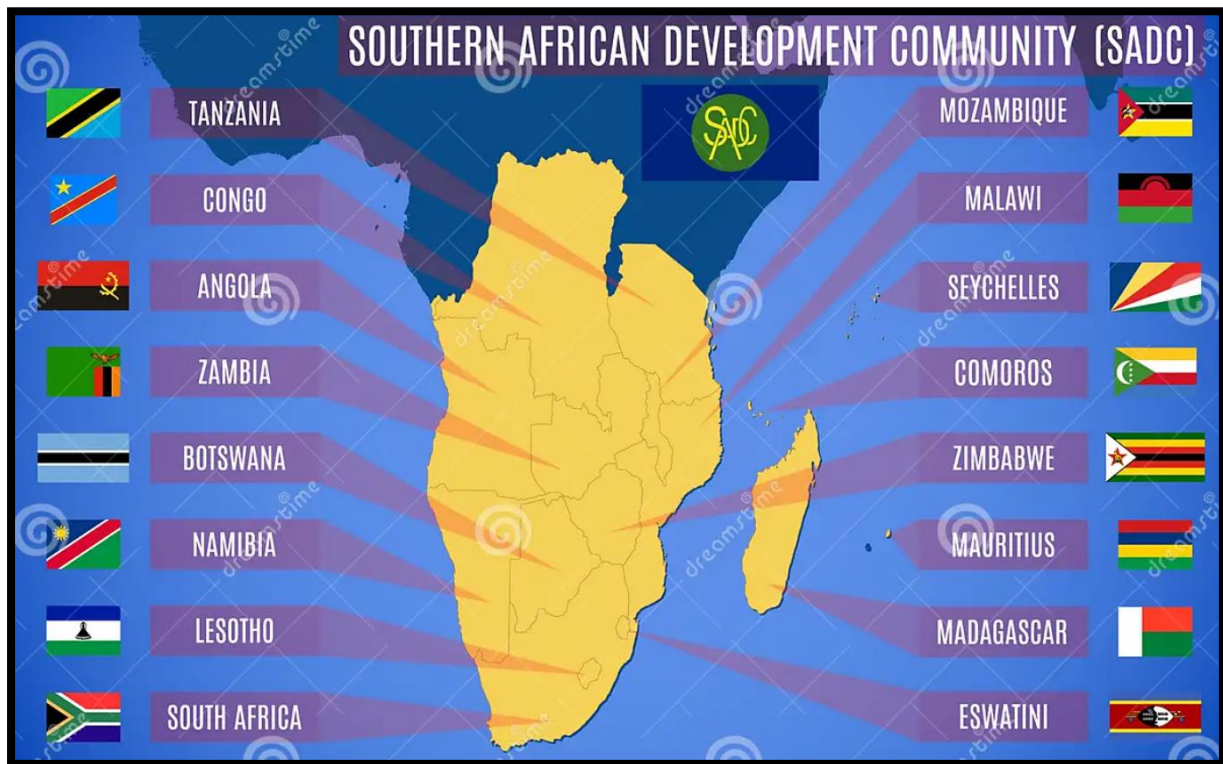
- **Regional Integration:** The goal of the SADC is to enhance economic integration by implementing free trade, facilitating the movement of capital, services, and goods, and establishing regional value chains. It also aims to create a single market for investments and trade (SADC, 2023c).
- **Trade and Investment:** The organization encourages intra-regional trade and seeks foreign investments. It has also established the Free Trade Area of SADC to eliminate trade barriers among its members. It encourages harmonizing regulations and policies to make the business environment more favourable.
- **Infrastructure Development:** The region's infrastructure development is a key component of the SADC's strategy to enhance economic growth and regional integration. It coordinates with other organizations to develop regional transportation networks, distribution and energy generation, ICT, and water management (SADC, 2023a).
- **Industrialization and Diversification:** The SADC promotes economic diversification and industrial growth to help reduce the region's reliance on

primary resources and achieve sustainable development. It also supports the establishment of special economic zones and industrial parks (SADC, 2023b).

- **Social Development:** The social development of the SADC involves addressing various sectors, such as education, poverty reduction, health, and gender equality. Member states work together on programs and projects to address common problems (SADC, 2023c).
- **Peace and Security:** The organization is dedicated to promoting peace and security within the region. It works with other organizations to address disputes, promotes peacebuilding initiatives, and prevent conflicts. It has also been mediating conflicts in countries such as Zimbabwe and the Democratic Republic of Congo (SADC, 2023c).

The 16 SADC member states are Angola, Botswana, Lesotho, Mozambique, Namibia, South Africa, Tanzania, and Zimbabwe. It also has a Council of Ministers and a Secretariat in Gaborone, Botswana. The organisation's members work with other global and regional organizations to promote trade, development, and cooperation within Southern Africa.

Figure 6: Countries that are part of SADC



Description: This figure shows the areas and countries that form the Southern African Development Countries.

Source: (SADC, 2023a).

2.12 WHAT IS THE GROWTH PATTERN IN SOUTHERN AFRICA

The Southern Africa region has emerged as a dynamic and rapidly growing market with diverse economic opportunities (Kramer-Mbula *et al.*, 2015). Comprising countries such as South Africa, Zambia, Zimbabwe, Botswana, Namibia, and others, this region has seen substantial growth in various sectors. This two-page overview delves into the key factors driving the development of the Southern Africa market, highlighting the geographical locations and the underlying reasons for its expansion.

Southern Africa spans a vast area with rich natural resources, diverse ecosystems, and strategic location. The region encompasses significant ports, trade routes, and transportation hubs, making it a vital link in global trade networks (PWC, 2023b). Coastal countries such as South Africa and Mozambique benefit from their proximity to international sea routes, facilitating trade and investment flows. Furthermore, the

region's interior countries are connected through road and rail networks that enhance intra-regional trade (PWC, 2023b).

Factors Driving Growth

Southern Africa boasts a wealth of mineral resources, including gold, platinum, diamonds, and copper, which significantly propel economic growth through mining activities. These endeavors contribute to exports, government revenue, and job creation, thereby supporting both local economies and international markets (ADBG, 2018). In addition to its mineral wealth, the region's fertile lands provide substantial agricultural potential, with countries like Zambia and Zimbabwe focusing on agribusiness to enhance food security and generate income (ADBG, 2018). The tourism sector flourishes in Southern Africa, attracting visitors with its natural beauty, wildlife, and cultural heritage. Countries such as South Africa, Namibia, and Botswana benefit from revenue generated by ecotourism and wildlife conservation efforts (PWC, 2023a). Recognizing the growing emphasis on sustainability, the region has seen increased investments in renewable energy projects, leveraging its solar and wind energy potential to align with global trends and achieve economic benefits (Kramer-Mbula et al., 2015). Rapid urbanization in the region has spurred demand for housing, infrastructure, and services, prompting governments to invest in transportation networks, telecommunications, and real estate projects to support urban growth. Southern African countries actively participate in regional economic blocs like the Southern African Development Community (SADC) and the African Continental Free Trade Area (AfCFTA), fostering intra-regional trade and providing access to larger markets (ADBG, 2018). The region's young and growing population contributes to a skilled workforce that drives economic growth and innovation, while the adoption of technology and innovation across various sectors enhances efficiency and enables digital services (ADBG, 2018).

While the Southern Africa market shows promising growth, it also faces political instability, regulatory uncertainties, infrastructure deficits, and socio-economic inequalities. Additionally, ensuring sustainable and inclusive growth, promoting good

governance, and addressing environmental concerns are key considerations for the region's continued development.

The Southern African market's growth is driven by a combination of factors, including its strategic geographical location, rich resources, focus on sustainable practices, and increasing connectivity (Montmasson-Clair *et al.*, 2017). As the region leverages its strengths while addressing challenges, it has the potential to become a significant player in the global economy, contributing to the prosperity of its nations and fostering regional integration.

2.13 FOREIGN INVESTMENT IN SOUTHERN AFRICA

Foreign investment has been a vital factor that has contributed to the growth and development of Southern Africa.

Mining and Extractive Industries: The mining and extractive industries of Southern Africa are rich in natural resources. Several countries, such as Angola, South Africa, Mozambique, and Zambia, have received substantial FDI in these sectors (UNCTAD, 2022).

Energy and Infrastructure: In Southern Africa, foreign direct investment has been directed toward various infrastructure projects, such as power plants, transmission lines, ports, railways, telecommunications networks, and roads. Some of the projects Chinese investors have financed include those in Mozambique and Zambia (AFR-IX, 2021).

Manufacturing and Industrial Sectors: In Southern Africa, foreign direct investment has been instrumental in the growth of the manufacturing industry. Investors have established numerous factories in various sectors, such as textiles, automotive, consumer goods, and Agri-processing (Loots *et al.*, 2012). South Africa has been attracting significant amounts of foreign investment in the automotive sector, with several multinational companies establishing their operations there (Loots *et al.*, 2012).

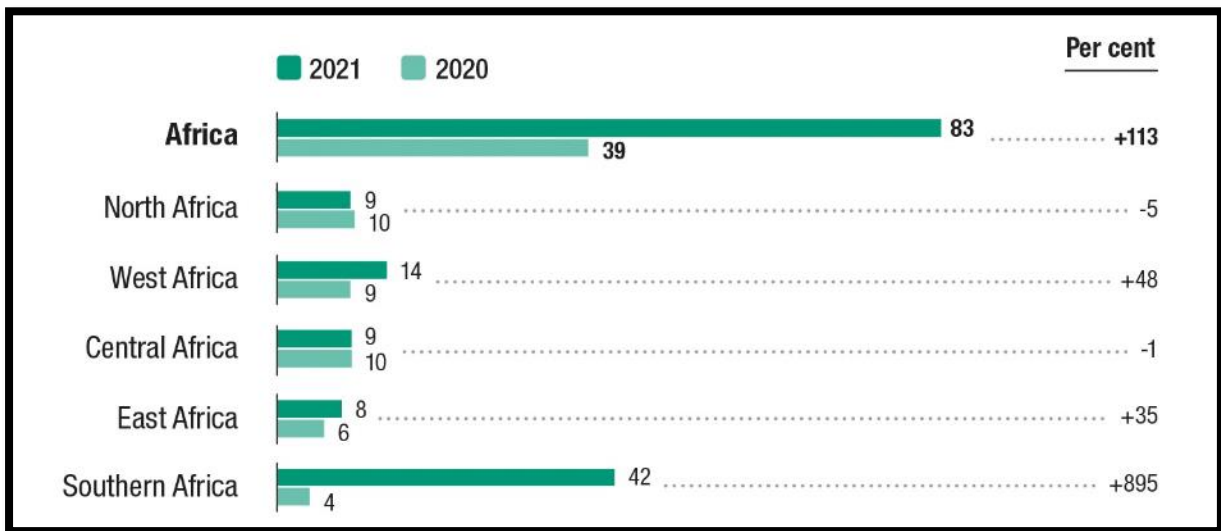
Services Sector: Foreign direct investment has been directed toward various sectors of the services industry, such as finance, technology, and telecommunications. Some of the companies that have been investing in Southern Africa are financial institutions, technology firms, and telecommunications companies. These sectors can capitalize on the country's growing digital economy and consumer markets (AFR-IX, 2021).

Agriculture and Agribusiness: Foreign direct investment has been made in the agricultural and agribusiness sectors of Southern Africa. Projects such as large-scale farming and infrastructure development have attracted investors from other countries looking to tap into the region's potential. Some examples include those in Zimbabwe and Zambia (Loots et al., 2012).

Tourism and Hospitality: The hospitality and tourism industry has been one of the sectors that foreign investment has been directed into in Southern Africa due to the country's natural beauty and wildlife reserves. Some investors have been establishing lodges, hotels, and safari operations to cater for the increase in tourists (Loots et al., 2012).

Retail and Consumer Goods: Foreign Direct Investment has been directed toward the consumer goods and retail sectors of Southern Africa, with numerous multinational firms establishing their operations within the region. Investments in supermarkets, shopping malls, and franchised establishments have been made (UNCTAD, 2022).

Figure 7: FDI inflows to the African continent and subregions, 2020-2021



Source: World Investment Report 2022

Description: In this figure, we can see that Southern Africa investment has increased by 895% from 2020 to 2021

The nature and level of foreign investment in Southern Africa can vary depending on the country's political stability, infrastructure, and market size (Loots et al., 2012). The region's governments regularly promote their investment policies and procedures to attract more foreign investors.

2.14 CHALLENGES SOUTHERN AFRICAN COMPANIES HAVE IN THE EXPORT MARKET

There are various obstacles that South African companies face when it comes to exporting goods and services. These can vary depending on the industry, the target market, and the global economic situation (Mpinganjira *et al.*, 2012).

The volatility of the exchange rate can affect South Africa's exports. A strong currency can make products more costly, while a weak one can reduce profit margins. To minimize the impact of currency fluctuations, exporters should be aware of the risks and implement effective strategies (Mpinganjira *et al.*, 2012).

Non-tariff and import quotas can restrict South African companies' access to the global market. High tariffs imposed by foreign nations can make the country's products less competitive (SADC, 2023b). Negotiating favourable trade deals and addressing such barriers can help boost export opportunities. Exporters must ensure that their products abide by global safety and quality standards. Violators can face penalties, rejections, or damage to their reputations.

South Africa's logistics and infrastructure are prone to malfunction, posing a threat to the country's exporters. Insufficient capacities, inefficient networks, cumbersome customs procedures, and delays in port delivery can result in higher costs, reduced competitiveness, and delays in shipment. Efficient logistics and infrastructural development can help boost the country's export competitiveness (Winkler *et al.*, 2022).

Knowledge of foreign markets can be a significant advantage for South African companies in exporting. They must conduct in-depth market research, understand consumers' preferences, and develop marketing strategies to meet the demands of their customers. Distribution channels should also be established with overseas partners (Winkler *et al.*, 2022).

South Africa's exporters rely on finance to support their marketing, production, and expansion efforts. Unfortunately, a limited supply of affordable financing options can negatively affect their export activities (SADC, 2018). The country's exporters can increase their access to export credit insurance and finance to stimulate growth.

As South Africa's exporters face increasing competition from other companies in different industries, they must develop differentiated products and offer value propositions to gain a competitive advantage (SACO, 2022). This can be achieved through the establishment of strong brands and the development of innovations.

Getting around the many administrative and regulatory hoops South African companies encounter when exporting can be very time-consuming and challenging. This is why the government must focus on simplifying the procedures and making the process easier (SACO, 2022).

Various government agencies and industry associations support South Africa's exporters by launching export assistance schemes, facilitating trade missions, establishing capacity-building initiatives, and providing incentives (TAIKZN, 2016). The private and public sectors must work together to overcome these obstacles and foster export-led growth.

2.15 CONCLUSION

In navigating the intricate landscape of exporting hydraulic equipment into the Southern African market, this comprehensive exploration has illuminated key facets that underscore the significance and complexity of this endeavour. From the foundational hydraulic equipment background to the role of foreign investment and trade agreements, a multifaceted picture emerges, shaping the trajectory of this industry within the region.

The hydraulic equipment's ability to harness hydraulic energy and translate it into mechanical force symbolises its integral role in various sectors, from construction to mining. This adaptability positions hydraulic equipment as an essential tool in almost any industrial process. Hydraulics are in the fabric of the Southern African economy (IOA, 2016).

Our focus on the distinct sectors of construction, mining, agriculture, and transportation has unveiled the diverse tapestry of industries that rely on hydraulic equipment's capabilities. With a growing demand for efficiency, precision, and power, hydraulic systems are at the intersection of innovation and practicality, driving advancements across sectors that define Southern Africa's economic landscape.

As we look toward the future, the trajectory of the hydraulic equipment market is poised for growth on both global and regional scales. Projections indicate a burgeoning market with a substantial worth, beckoning opportunities for manufacturers and exporters alike (MRF, 2021). South Africa's role as a pivotal hub for hydraulic equipment exports within the Southern African market cannot be underestimated. Original equipment manufacturers (OEMs) strategically utilize South Africa's access

to the region's trade networks to position themselves for growth and competitiveness (IOA, 2016).

The mining and industrial sectors, concentrated in countries like South Africa, Zambia, and Zimbabwe, are crucial contributors to the region's economic vitality. These sectors' profitability underscores their role in driving growth and development, capitalizing on the abundant mineral resources that characterize Southern Africa's wealth (Hanusch et al., 2019).

The emergence of the African Continental Free Trade Area (AfCFTA) adds another layer of complexity and potential. As trade barriers are dismantled and regional cooperation deepens, the prospects for hydraulic equipment exports stand to benefit from a more integrated and interconnected market (Nkomo et al., 2020).

Challenges, however, remain as a counterpart to opportunities. Factors such as political instability, inadequate infrastructure, and the volatility of commodity prices can impede growth. Addressing these challenges through strategic investments, innovative policies, and cooperative efforts is essential for ensuring sustained and inclusive economic development (DBSA, 2023).

The Southern African Development Community (SADC) emerges as a significant player in the grand tapestry of Southern Africa's economic landscape. Its role in promoting integration, cooperation, and growth cannot be understated, offering a platform for countries to collectively navigate the challenges and opportunities presented by hydraulic equipment exports (SADCb, 2023).

The growth pattern within Southern Africa is both dynamic and multifaceted, propelled by mineral wealth, agricultural potential, renewable energy prospects, and the resilience of its skilled workforce. As these threads intertwine, they contribute to a growth story that holds promise for the region's economic advancement (Kramer-Mbula et al., 2015).

Foreign investment, a catalyst for growth, has injected vitality into various sectors, from mining and manufacturing to services and agriculture. Its impact is evident in the infrastructural development, technological progress, and job creation that have transformed Southern Africa's economic landscape (UNCTAD, 2022).

However, as in any endeavour, challenges are inherent. The volatility of exchange rates, trade barriers, logistical hurdles, and compliance with global standards demand strategic foresight and adaptability from South African companies seeking to excel in the export market (SADCb, 2023).

In conclusion, this comprehensive exploration has shed light on the multifaceted landscape of exporting hydraulic equipment into the Southern African market. The interplay of technological innovation, economic dynamics, regional cooperation, and the pursuit of sustainable growth forms a complex tapestry that reflects the region's aspirations, opportunities, and challenges. As the Southern African market continues to evolve, the export of hydraulic equipment reflects its progress and is a catalyst for its future endeavours.

CHAPTER 3

CHAPTER 3: RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN AND METHODOLOGY INTRODUCTION

The first step the researcher must make within research methodology is to determine whether a quantitative, qualitative, or mixed-method research design will be utilised (Saunders et al., 2016:162). A qualitative research method effectively collects data through individual interviews and open-ended questions with several target audiences (Bengtsson, 2016:13). Qualitative research is a descriptive approach that concentrates on investigating the perspectives of individuals and is a practical approach to use when the subject is relatively new or when little information is available (Lorenzetti, 2007:4).

The research conducted for this study has a qualitative approach, as several interviews were conducted with senior management of organisations that supply hydraulic equipment to the Southern African market. This method will assist in determining where the African market is growing and in which sector. A qualitative approach will help in understanding how organisations expand into the Southern African market and what challenges they might face.

This study has been conducted in two phases. Phase one of the study was a comprehensive literature review. The primary objective of the literature review is to gather secondary data on the exports of hydraulic equipment in the mining and industrial sectors of Southern Africa. This was followed by an empirical study on assessing the exports of hydraulic equipment in the mining and industrial sector of the Southern African market, using open-ended interviews with people working for organisations in South Africa that export hydraulic equipment into the Southern African market.

Several online academic databases, like Google Scholar, Google and NWU library, were used to obtain the secondary data used in the literature review.

The sources include:

- Publications
- Articles
- Books
- Journals
- News articles

3.2 EMPIRICAL STUDY

In this chapter, we embark on a comprehensive exploration of the empirical aspect of our dissertation, which delves into the assessment of hydraulic equipment exports into the evolving Southern African market. The study is underpinned by a well-defined research paradigm, employing a qualitative methodological approach. The chapter elucidates our research strategy, delineates the time horizon of our investigation, and provides insights into our study population. Furthermore, we outline the design of our measuring instrument, elucidate the meticulous data collection process, and shed light on the statistical analysis that will uncover the trends and patterns within our dataset. Additionally, we address the paramount issues of trustworthiness and ethical considerations that underscore the integrity of our study.

The design of the empirical investigation involves:

- Research paradigm
- Research approach
- Methodological approach
- Research strategy
- Time horizon
- Study population and sampling
- Design measuring instrument
- Collection of data
- Statistical analysis
- Trustworthiness
- Ethical Consideration

Each of these is introduced in the next section.

3.3 RESEARCH PARADIGM

A research paradigm is a set of common beliefs and agreements shared between scientists about how problems should be understood and addressed (Brown, 2020). According to the Saunders research onion, there are five major philosophies: positivism, critical realism, interpretivism, postmodernism and pragmatism. The positivism and interpretivism paradigms are the most dominant in the two sectors of management and social sciences (Collis & Hussey, 2014:43). Positivism relates to the philosophical stance of the natural scientist. It entails working with an observable social reality to produce law-like generalisations (Saunders *et al.*, 2016:135). Positivism focuses on uncovering truth and presenting it empirically (Van Rensburg *et al.*, 2004:17).

Subjective experience will be used to understand decision-making strategies. Therefore, the research philosophy that will be used for this study will be interpretivism, as the participants' personal experiences will be used to assess the exporting market of Southern Africa.

3.4 RESEARCH APPROACH

When using an inductive approach to theory development, untested conclusions are generated by using known premises (Saunders *et al.*, 2019:153). During induction, the researcher moves from the data collected to the theory (Saunders *et al.*, 2019:155).

In this study, the research will be using an inductive approach. The researcher will collect data relevant to the research topic. Once the data is collected, the researcher will look for patterns in the raw data and develop and assess the export market of Southern Africa to explain the practices and achieve his objectives.

3.5 METHODOLOGICAL CHOICE

A study's research design creates a sense of direction for the researcher, providing a clear plan of action to answer all the research questions (Saunders *et al.*, 2009:159).

The mono method uses a single data collection tool that works in conjunction with a qualitative or quantitative research design. A multi-method uses multiple data collection methods to answer the study's research questions (Saunders *et al.*, 2009:164). A qualitative research approach is adopted in this study, meaning that a mono-method qualitative technique will be used to answer the research questions and achieve the primary and secondary objectives. The researcher has done one-on-one, semi-structured interviews with people working in the Southern African market's export sector of hydraulic machinery.

3.6 RESEARCH STRATEGY

The strategy in this study was one-on-one, semi-structured interviews. Open-ended questions were used to uncover thoughts, trends, and opinions. The interviews obtained the actual views and challenges faced by the organizations in the hydraulic machinery exports industry.

The questions employed during the one-on-one interviews were meticulously structured to facilitate data collection necessary for fulfilling the primary and secondary research objectives. Furthermore, the construction of the questionnaire drew upon insights gleaned from the comprehensive literature review conducted in this study.

3.7 TIME HORIZON

This section elucidates the time dimension of the research, which was characterized as a cross-sectional, short-term study following the methodology proposed by (Aleksandras *et al.* 2018:34). Considering the research's singular nature and its focus on data collection at a specific point in time, thus conducting a methodological approach akin to cross-sectional and short-term analysis.

3.8 STUDY POPULATION AND SAMPLING

3.8.1 Population

Hungler *et al.* (1999:37) refer to the population as a totality of all the objects, subjects or members that conform to a set of specifications. For this study, the population will

be organisations based in South Africa in the Gauteng province that manufacture or supply hydraulic equipment to the Southern Africa mining and industrial sector. Over 100 organisations in Gauteng alone specialise in this sector market. Thus, there was no difficulty identifying organisations to participate in this study.

Inclusion criteria

Inclusion criteria specify attributes of subjects included in the research study (Connelly, 2020:125)

- Businesses that manufacture hydraulic equipment based in the Gauteng province in South Africa.
- Businesses that import hydraulic equipment use South Africa to enter the Southern African market.
- Businesses must have a minimum of 50 employees.
- Businesses must have an export market or be interested in exporting into the Southern African market.
- Only management will be eligible for the survey.

Exclusion criteria

Exclusion criteria specify attributes that exclude an individual from participating in the study (Connelly, 2020:125).

- Businesses that do not have an export footprint in the Southern African market.
- Businesses not based in the Gauteng province in South Africa.
- Organisations that import hydraulic equipment but do not export to the Southern African countries.
- Organisations manufacturing hydraulic equipment in South Africa but not exporting.
- Businesses having less than 50 employees.
- Employees that do not have a management role in the organisation.
- Organisations that export equipment and machinery, but not hydraulic equipment, to the Southern African market.

3.8.2 Sampling strategy

Non-probability sampling offered a variety of alternative techniques for sample selection, with most of them entailing a degree of subjective judgment, as highlighted by (Saunders et al. 2016:295). This study was grounded in market expectations. Given the study's narrow focus on a specific industry sector, the non-probability sampling method was employed. Identifying organizations that would contribute valuable insights to the study was selected.

The researcher in this study adhered to all the regulations and rules outlined in the new POPIA Act. The researcher's organization had provided a list of potential participants for this specific study. The researcher selectively filtered for mid-level management or higher positions. After determining the sample from the population, eleven participants were interviewed from the list as that was when data saturation was achieved. The researcher maintained no prior relationships with any of the selected participants to safeguard the trustworthiness of the data.

3.8.3 Sample Frame

It is recommended that data gathering take place until the inclusion of additional participants no longer yields new information, a concept commonly referred to as data saturation (Saunders *et al.* 2019:315). In alignment with this recommendation, the study aimed to interview 15 participants, specifically three individuals from each of the industry's five major hydraulic equipment organizations. This approach was adopted to ensure data saturation, with the target size being adjusted to 11 as data saturation was achieved.

3.8.4 Geographical area

The study exclusively selected sampling participants and organizations within the Gauteng province of South Africa. The research design aimed to interview twelve participants, with three individuals chosen from each of the five major hydraulic equipment organizations operating within the hydraulic industry. This approach was employed to comprehensively represent the study's target population and industry focus within the designated geographical area.

3.8.5 Access to the study population

The researcher encountered no difficulties gaining access to the study population due to meticulous preparation and adherence to ethical standards. All necessary ethical clearance documentation was diligently procured, and consent letters were signed before data collection. The researcher explicitly conveyed that these measures were instituted not for the sole benefit of their organization but to contribute positively to the sector industry. After this was thoroughly explained the researcher had no difficulties to get access to the study population.

Additionally, it was articulated that the survey strictly adhered to the regulations of the new POPI Act, assuring the confidentiality and privacy of all data collected. It was explained explicitly that the final published document would contain no specific details about the organizations or participants involved, emphasising the commitment to data protection.

3.8.6 The recruitment process for this qualitative study

The target population was defined meticulously in the following manner:

Firstly, the researcher identified the five intended organizations, these organizations were selected on their footprint size in the African market. Before commencing the recruitment process. This initial step entailed the comprehensive collection of information about these organizations, emphasizing specific characteristics deemed beneficial to the study.

Following the target population's definition, the researcher developed stringent eligibility criteria for potential participants. These criteria were designed thoughtfully to align with the study's objectives and research questions.

With the eligibility criteria in place, the researcher initiated identifying potential participants. This phase encompassed diverse methods, including referrals and

leveraging the organization's network and established relationships to identify suitable candidates.

Upon identifying potential participants, the researcher actively contacted the managers and owners of the five selected organizations, to introduce the study and gauge their interest in participation. This outreach used e-mail, telephone, or in-person interactions.

The researcher obtained informed consent once the potential participants had been screened and deemed eligible. This crucial step involved comprehensively explaining the study's purpose, procedures, and adherence to regulatory requirements. Participants were presented with a carefully prepared document elucidating these aspects, and their voluntary participation was contingent upon signing this document.

Finally, the researcher conducted interviews with the participants, which occurred either in person or through remote sessions. These interviews were recorded meticulously to facilitate subsequent analysis of the study's research objectives.

3.9 DESIGNING THE MEASURING INSTRUMENT

Interviews and observations serve as indispensable tools, particularly in qualitative research contexts, as emphasized by (Merriam and Tisdell 2015:137). In alignment with the qualitative research paradigm, this study adopted a qualitative method for data collection. The primary mode of data acquisition involved one-on-one interviews with participants from the hydraulic industry operating within the Southern African market. The interviewing process facilitated the collection of raw data from participants, thereby equipping the researcher with essential resources for the study's conduct.

A semi-structured interview schedule was employed to elicit comprehensive responses and insights from participants. This method encompassed a carefully crafted set of fourteen questions that pertained directly to the study's focal topic. This

meticulous approach facilitated the acquisition of valuable data from all participants, effectively enabling the researcher to address the study's predetermined objectives.

3.10 COLLECTION OF DATA

The data collection process served as the foundational tool employed by the researcher to elucidate a phenomenon, identify themes, and construct a conceptual framework, as expounded upon by (Saunders et al. 2019:153).

In this study, the researcher conducted face-to-face interviews or utilized Microsoft Teams for remote interviews with the selected participants, strictly adhering to the predefined study inclusions. Throughout the process, the participants were guaranteed utmost confidentiality, with an explicit assurance that neither the participants nor their organizations would be identified or disclosed in the final published document.

Moreover, the researcher meticulously adhered to the POPI Act to ensure compliance with data protection regulations. The interview process was complemented by a comprehensive consent letter outlining the data collection procedures and ethical considerations inherent in the study. Furthermore, the commencement of data gathering was contingent upon receiving approval from the ethical committee of North-West University.

Notably, the interviews spanned two months, with each session averaging approximately 40 minutes. The interviews were conducted in English, and it is pertinent to mention that permission letters from the organizations were not deemed necessary, due to the fact that top management were included in the survey they imply consent.

3.11 DATA ANALYSIS

During data analysis, qualitative data is coded and broken down to identify trends and themes that are linked to the researcher's questionnaire for future analysis (Saunders

et al., 2019:651). A thematic analysis approach allows for a systematic yet flexible data analysis approach. The researcher has used Atlas.ti to analyse his data.

There are four steps the researcher should follow to accomplish this analysis (Kumar, 2018:402):

- Step 1:** Identify and label all the research topic's main themes.
- Step 2:** Allocate each main code with a specific code. Codes will assist the researcher in counting the number of times the specific themes have occurred.
- Step 3:** Categorise all the answers under the allocated themes. Once the themes are identified due to this study's thematic analysis, the researcher can use qualitative computer software like Atlas.ti to conclude the data findings.
- Step 4:** Incorporate themes and feedback from participants into a full report.

3.12 TRUSTWORTHINESS

Trustworthiness encompasses four fundamental criteria, namely credibility, dependability, transferability, and confirmability, as posited by (Bryman et al. 2015:44,45).

Credibility, often synonymous with the validation of the participants, involves a crucial aspect of the research process (Bryman et al., 2015:44,45). Following the transcription of data collected through interviews, the researcher returned the data to the participants for verification and validation, ensuring an accurate interpretation of the findings. This practice allowed participants to rectify any inaccuracies or supplement the data with additional insights.

Dependability, according to (Bryman et al. 2015:45), hinges on the assurance that the research process is meticulously documented, traceable, and well-documented, thereby safeguarding the availability of all data for future reference. The researcher diligently undertook the task of properly documenting the research and its associated

data, rendering it logical and observable to uphold the standards of dependability. All the gathered data has been kept for future studies or audits.

As outlined by (Bryman et al. 2015:44), transferability involves transforming study results into a different format. Achieving transferability necessitates readers to discern similarities between cases by scrutinizing the original research in depth. To ensure transferability, the researcher has aligned the study's outcomes with existing literature from similar studies.

Confirmability, the fourth criterion, serves as a measure intended to mitigate the influence of personal values and opinions on the research findings, with interpretations strictly derived from the collected data (Bryman et al., 2015:45). In this study, confirmability was ensured through the meticulous implementation of dependability, transferability, and credibility. Additionally, the researcher sought external accountability by enlisting the guidance of the study leader and a qualitative data expert, further bolstering the researcher's commitment to confirmable findings.

3.13 ETHICAL CONSIDERATION

The consideration of ethics in research is considered one of the most important aspects of the study. This study involves human participants and businesses, studying real-life phenomena and strategies of organisations in the export market, and therefore, research ethics approval must be obtained before starting with data collection (Fleming *et al.*, 2018: 205)

According to Bell & Bryman (2007:129), there are ten important principles to take into account for ethical consideration (Bell & Bryman, 2007:129):

- The study participants should not be subjected to harm in any way whatsoever.
- The study should respect the dignity of the participants.
- Informed consent should be obtained from the participants before the study.
- The privacy of research participants should always be protected.
- Confidentiality of the research data should always be ensured.

- The individuals and organisations participating in the research study should always be anonymous.
- There should be no deception or exaggeration about the aims and objectives of the research study.
- The researcher will have to declare affiliations in any form, sources of funding, and any possible conflicts of interest in the study.
- Communication within the study should be done with honesty and transparency.
- The researcher must avoid misleading information and the representation of primary data findings in a biased way.

The researcher diligently ensured adherence to these principles throughout this study. Moreover, meticulous consideration was given to selecting a topic that warranted investigation while being non-intrusive in nature.

In the pursuit of ethical research, each participant and organization within the study sample signed a consent letter. This prerequisite served to apprise them of the potential benefits and risks associated with their involvement in the study.

Furthermore, it is worth noting that the researcher maintained a low risk of conflict of interest, given the multitude of organizations operating within South Africa that deliver hydraulic equipment to the Southern African market. Participants were guided to respond to the export market in a general context to uphold impartiality rather than predicated upon the strategies or opinions of their respective organizations.

3.14 CONCLUSION

In conclusion, the research methodology chapter has delineated the path for investigating the exports of hydraulic equipment in the Southern African market. The qualitative research approach was selected to delve into the perspectives and challenges of organizations operating in this sector. The study has been conducted in two phases, commencing with an extensive literature review (Chapter 2) to gather secondary data on hydraulic equipment exports, followed by an empirical investigation involving one-on-one semi-structured interviews with key stakeholders in the industry (Chapter 4). The research paradigm of interpretivism was adopted to grasp the

subjective experiences and decision-making strategies. Inductive reasoning will guide the research approach, moving from collected data to formulating theories. Open-ended interviews will be in a qualitative mono-method design to address the research objectives. The study's credibility and dependability will be upheld through participant validation, rigorous documentation, and transparency. Ethical considerations underscore confidentiality, informed consent, and adherence to principles prioritising participant well-being and dignity. Overall, the meticulous methodology outlined in this chapter ensures a robust and ethically sound exploration of hydraulic equipment exports in the Southern African market.

CHAPTER 4

CHAPTER 4: FINDINGS, RESULTS AND DISCUSSION

4.1 INTRODUCTION

In the quest to understand the intricate dynamics of the hydraulic equipment market within the Southern African region over the next five years, this study embarked on a comprehensive investigation. This research aimed to shed light on the potential market growth of hydraulic equipment in this unique and evolving economic landscape. This introductory section presents the culmination of an exhaustive qualitative analysis, harnessing insights from interviews with 11 top-level industry experts. These insights collectively reveal the intricate facets and challenges that shape the present and prospects of hydraulic equipment within the Southern African market.

This research conducted in-depth semi-structured interviews with 11 top-level management professionals to address his objectives, as mentioned in Chapter 2. This qualitative approach was chosen to ensure quality data is obtained to undersad the insights into the complexities of the hydraulic equipment market within Southern Africa.

The subsequent sections of this results chapter delve into the findings from these interviews. These findings are presented, discussed, and contextualized to comprehensively understand the hydraulic equipment market's growth prospects in Southern Africa.

The following sections will present a detailed account of the findings, with particular emphasis on the implications for the future of the hydraulic equipment industry in the Southern African market.

4.2 QUALITATIVE RESULTS

In the qualitative analysis conducted with Atlas.ti, five central themes emerged to encapsulate the research findings. These themes include Market Growth, Foreign Investment, AfCFTA (Africa Continental Free Trade Agreement), Challenges with

Exports, and the Impact of the Mining and Industrial Sector. A network of correlated codes has been identified within each of these central themes, offering a comprehensive exploration of the qualitative results. The subsequent section will delve into these interconnected codes, providing a nuanced understanding of the researcher's analysis and findings.

4.3 DEMOGRAPHIC AND BUSINESS CHARACTERISTICS OF THE RESPONDENTS

For this study on the assessment of exports of hydraulic equipment in the mining and industrial sector of the Southern African market, the demographic and business characteristics of the interviewees are as follows. All 11 participants were located in Gauteng province, South Africa, a significant detail allowing for a regional focus, considering potential unique dynamics in this area. Furthermore, all interviewees held senior management or directorial positions within their respective companies, indicating that the study targeted individuals with substantial decision-making authority and expertise in the field. This is crucial for gaining insights into export practices within the industry.

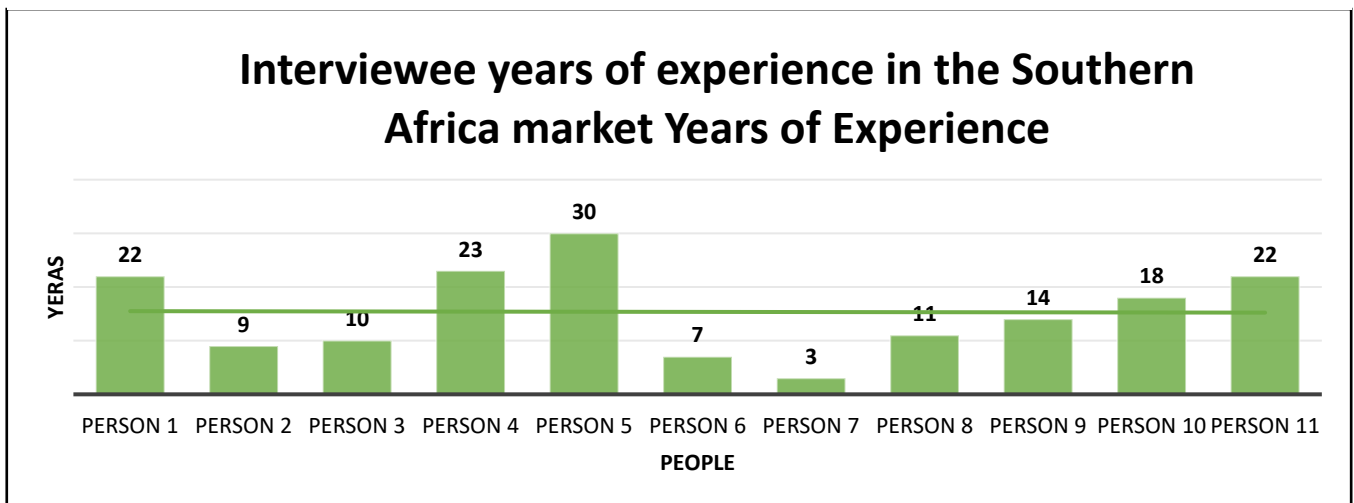
In terms of their years of experience, the interviewees brought diverse backgrounds to the study, which added depth to the research. Their years of experience ranged from three to 30 years (see Figure 1 for the experience distribution). This diversity in experience levels can be instrumental in understanding how varying levels of experience might influence their perspectives and insights on the export of hydraulic equipment.

From a business standpoint, the interviewees work in organisations that export hydraulic equipment within the mining and industrial sectors of Southern Africa. This demonstrates that they possess specific knowledge and experience related to the products and markets central to the study. Additionally, the research focuses on the Southern African market, making these interviewees' insights directly relevant to this study's objectives.

Lastly, given that all interviewees hold senior managerial positions, they are likely to provide valuable strategic insights into their companies' export operations, market strategies, and challenges. This high level of responsibility within their organisations positions them as key informants for this study, as their perspectives have shed light on critical aspects of the hydraulic equipment export industry in Southern Africa.

The figure below shows each respondent's different years of experience. Using this graph, the researcher identified people who are truly established in this field and whose data would be trustworthy and reliable.

Interviewee's Years of Experience in Exporting into the Southern African Market



Interviewing individuals with experience is pivotal in qualitative research for many reasons. Seasoned participants bring a wealth of expertise and in-depth knowledge to the table, enabling them to provide nuanced insights that illuminate complex phenomena. Their broad contextual understanding, often acquired over time, adds historical depth to the research (Clements, 2023). Moreover, their responses are richer, filled with detailed examples and real-world scenarios that enhance the qualitative dataset. Experienced participants typically hold influential roles within their organisations or fields, making their perspectives academically valuable and practically relevant for decision-makers. Including individuals with varying experience levels in a study can yield diverse viewpoints, enriching the qualitative analysis. Additionally, their credibility and trustworthiness enhance the research's validity, while

their validation or confirmation of findings adds further reliability. Lastly, experienced participants offer the practical application of research insights and can guide researchers in interpreting complex data, making them indispensable contributors to qualitative research (Sergeant, 2012:3).

4.4 THEMES AND SUB-THEMES

Atlas.ti plays a pivotal role in this research study. It facilitates systematic data management and analysis, enabling the researcher to navigate the intricate web of qualitative data. Atlas.ti aids in demonstrating data saturation, ensuring a comprehensive understanding of the research landscape.

Qualitative research frequently entails the comprehensive analysis of intricate human experiences and perspectives. Researchers often rely on specialized tools to facilitate the systematic examination of data. Atlas.ti was the perfect tool for this study.

The study comprises 11 meticulously transcribed interviews with senior management figures from organizations based in Gauteng that export to the Southern African market. These interviews provide a nuanced exploration of the challenges, opportunities, and dynamics governing their operational landscape.

4.5 IDENTIFYING CENTRAL THEMES AND CODES

Five central themes have surfaced from the data collected from the interviews, encapsulating key facets of the research context:

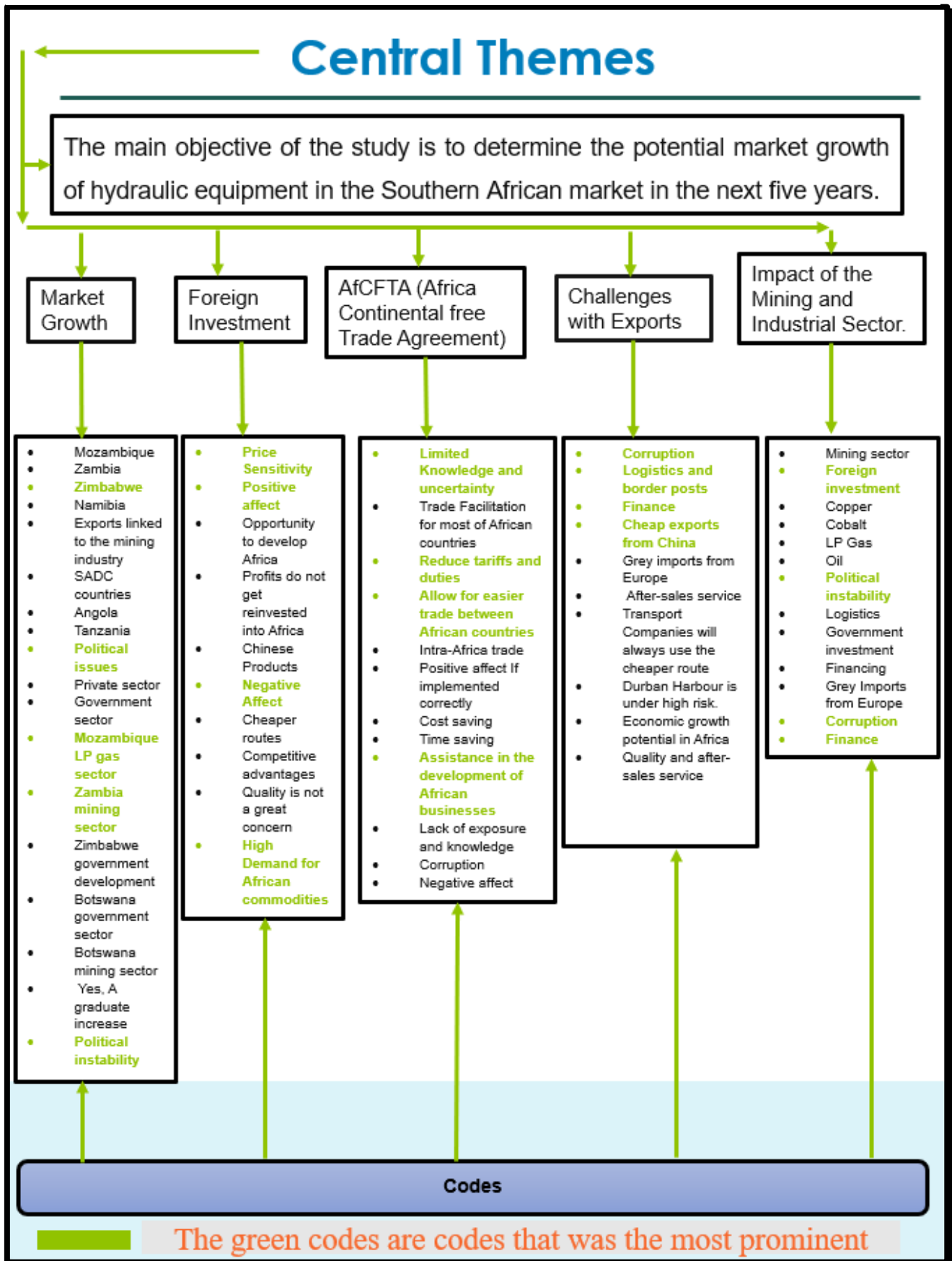
- **Market Growth:** This theme addresses the drivers and impediments to market expansion. The sub themes for this theme include "Zimbabwe," "Political issues," "Mozambique LP gas sector," "Zambia mining sector," and "Political instability." These sub themes has helped the researcher understand the market growth in Southern Africa and complexity around it.
- **Foreign Investment:** Insights into the allure and challenges of foreign investments are encoded through "Price Sensitivity," "Positive affect," "Negative Affect," and "High Demand for African commodities."

- **AfCFTA (Africa Continental Free Trade Agreement):** The AfCFTA, a transformative force for African businesses, is observed with codes like "Limited Knowledge and uncertainty," "Reduced tariffs and duties," "Facilitating intra-African trade," and "Supporting African business development."
- **Challenges with Exports:** This theme delves into the hurdles faced by organisations in their export endeavours. Codes encompass "Corruption," "Logistics and border posts," "Finance," and "Competition from Chinese exports."
- **Impact of the Mining and Industrial Sector:** This theme reveals the intersections of foreign investment, political instability, corruption, and finance within the mining and industrial sectors.

In a qualitative research study, Atlas.ti is a discerning guide, that has been used as a preliminary analysis to identify themes of intricate data. It bridges the gap between raw data and meaningful insights in this context. Through its application, this study gains a deeper understanding of market dynamics, challenges, and opportunities encountered by senior management in Gauteng-based organisations exporting to the Southern African market.

In the table below, the researcher has structured his central themes and codes to show that these themes are designed to achieve the study's objectives. The researcher will show in the next couple of sections that data saturation was achieved

Table 1: Central Themes and main codes to obtain data for this study.

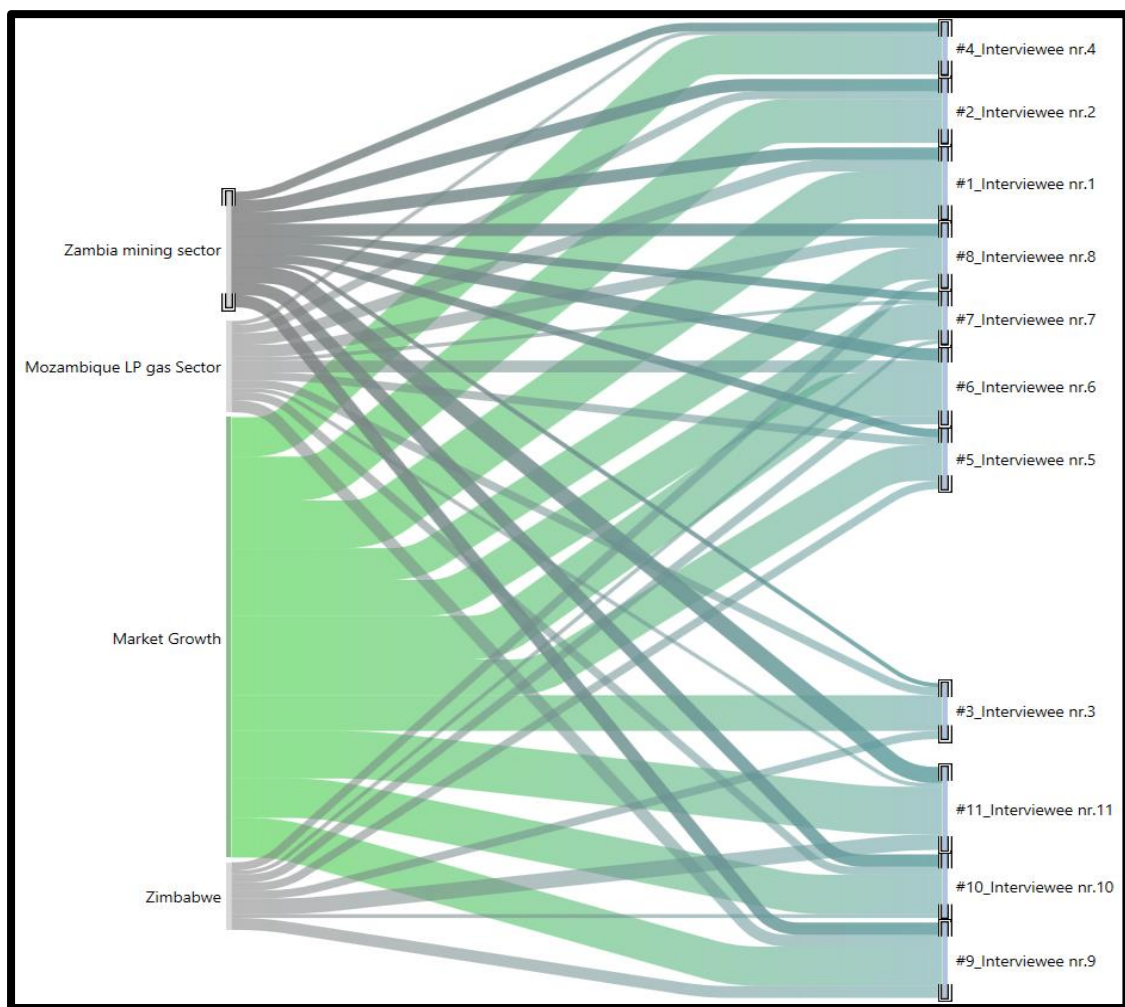


4.6 RESULTS OF EXPECTED MARKET GROWTH

This section presents the findings of the first objective, to ascertain the areas with the most substantial potential for market growth in Southern Africa, as stipulated in the primary research objective. The study's analytical examination of the collected data has conclusively identified three primary areas of significant market growth within the region.

Data saturation, a fundamental concept within qualitative research, was successfully attained in this study. As visualised through the implementation of a Sankey graph, it is evident that each interviewee consistently cited the three areas of growth mentioned before.

Figure 2: Visual Representation of Where to Expect the Market Growth and to Show Data Saturation was Achieved.



Zambia Mining Sector

The foremost sector demonstrating notable growth prospects is the mining industry in Zambia. This phenomenon can be attributed to the heightened demand for copper and cobalt, two critical resources within this sector. With significant reserves of cobalt and copper, Zambia is well-positioned to meet the world's energy needs. This country is also expected to be vital in transitioning to renewable energy sources (TC, 2023).

Mozambique LP Gas Industry

The second salient area of market growth centres on the LP gas industry in Mozambique. The surge in demand for liquefied petroleum gas (LP gas) has emerged as a significant driver of market expansion within this context. This conclusion is fortified by the firsthand accounts provided by study participants, which highlight the industry's pivotal role in shaping regional market trends.

Due to Mozambique's discovery of more than 180 trillion cubic feet of natural gas in the Rovuma basin, it is expected to become a significant supplier of liquified natural gas (ITA, 2022).

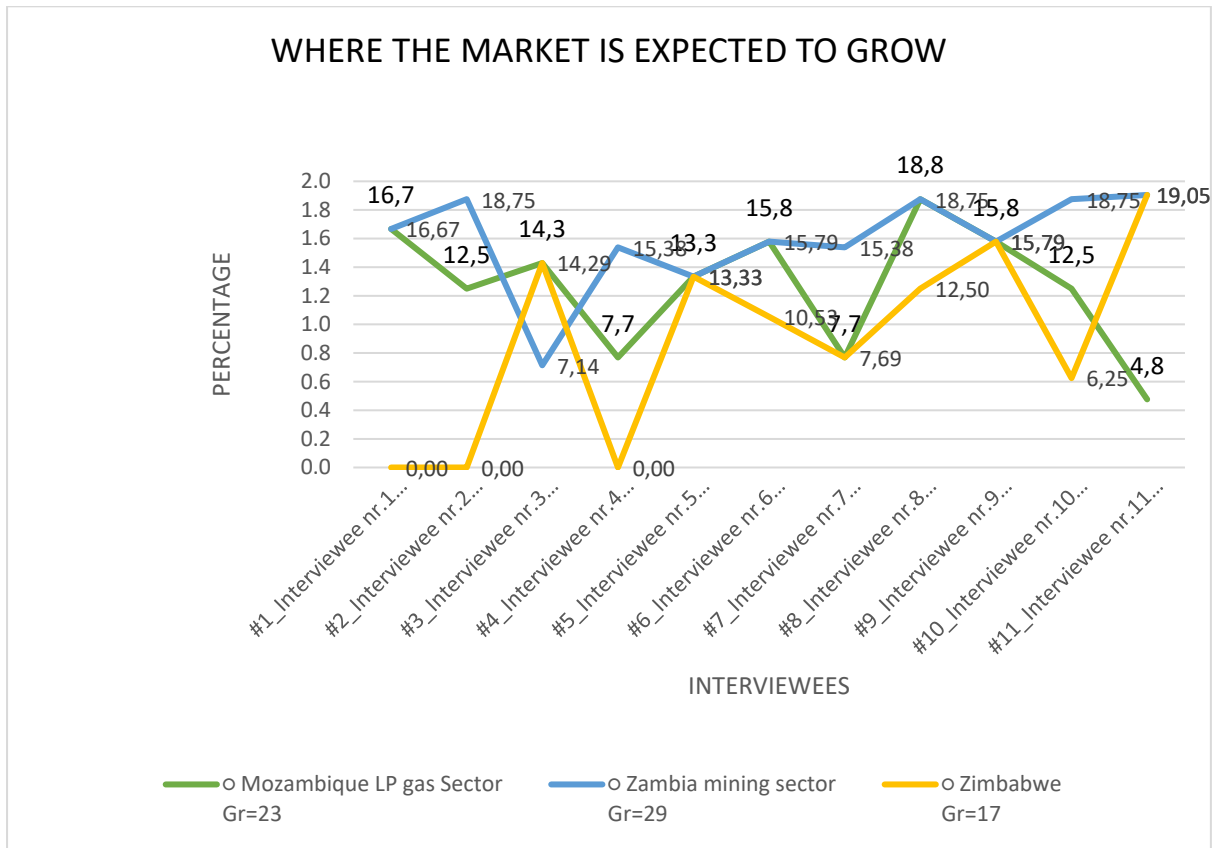
Zimbabwe's Market Growth

The third vital arena contributing to market growth pertains to Zimbabwe's agricultural and mining sectors. These sectors have exhibited notable growth trajectories, profoundly impacting the broader regional market.

-
- *Zambia's copper mines and the Mozambique LP gas market is a booming market and will boom for the next few years to come. – Interviewee 2 (ID: 2:24)*
 - *Continues growth in Mozambique and Zimbabwe. – Interviewee 5 (ID: 5:6)*
 - *Mozambique, due to Gas, mining and potential ports going up. Zimbabwe and Zambia are also showing potential for growth in the coming years. – Interviewee 8 (ID: 8:24)*
-

In the graph below, we can see the percentage of how much each interviewee believes this area will grow. It is also clear that the Zambia mining sector shows to be the most promising, looking at market growth for the next five years.

Figure 3: Where the market is expected to grow



In summary, supported by statistical evidence and the attainment of data saturation, has highlighted the dominance of the Zambia mining sector, the Mozambique LP gas industry, and the Zimbabwean agricultural and mining sectors as the most significant contributors to regional market expansion. These findings constitute a valuable contribution to understanding the evolving economic landscape of the region and underscore the thoroughness of this research study.

4.6.1 Factors influencing the market growth in Southern Africa

In addition to identifying critical areas of market growth, the researcher also showed the pivotal factors exerting and influencing the market growth. Notably, three paramount issues emerged as significant determinants of market dynamics in Southern Africa. Firstly, political issues and the spectre of political instability were recurrent themes within the interviews. Second, the constrained availability of finance, primarily attributable to South African banks' reluctance to finance new projects in African countries, emerged as a substantial impediment to market development.

Lastly, logistics and border control challenges, including prolonged waiting times for cross-border movement of goods, were frequently cited factors impeding market growth. These multifaceted issues collectively underscore the intricacies of the regional business environment and its susceptibility to external factors. The graph below shows that political issues are the biggest factor that stagnates growth in Southern Africa.

The below graph, Figure 4 displays the percentage distribution of these critical problem areas. This graph serves as a compelling testament to this research's comprehensive nature, illustrating that all study participants consistently and prominently mentioned these pivotal factors—political issues, finance availability, and logistical challenges. The graphical representation reinforces the reliability and internal consistency of the findings.

-
- *Due to unemployment being the highest compared to other countries in the world, we experience strikes, theft, murders and political instability. – Interviewee 9 (ID: 9:13)*
 - *Bribery and corruption, as well as funding, are major problems we encounter – Interviewee 11 (ID: 11:20)*
 - *Challenges with forex availability, so this is affecting us, not being able to make payments in foreign currencies – Interviewee 1 (ID: 1:11)*

The theory is a technological progress of labour using power supply and capital formation associated significantly with Southern African economic growth (Van Wyk *et al.*, 2023). Furthermore, Bowmans states that South Africa's loan market is exposed regularly to cross-border and syndicated loan transactions. These types of transactions involve various jurisdictions, and the documents used in them are typically governed by different corruption systems (BTWK, 2019).

Figure 4: Factors Challenging the Market Growth in Southern Africa

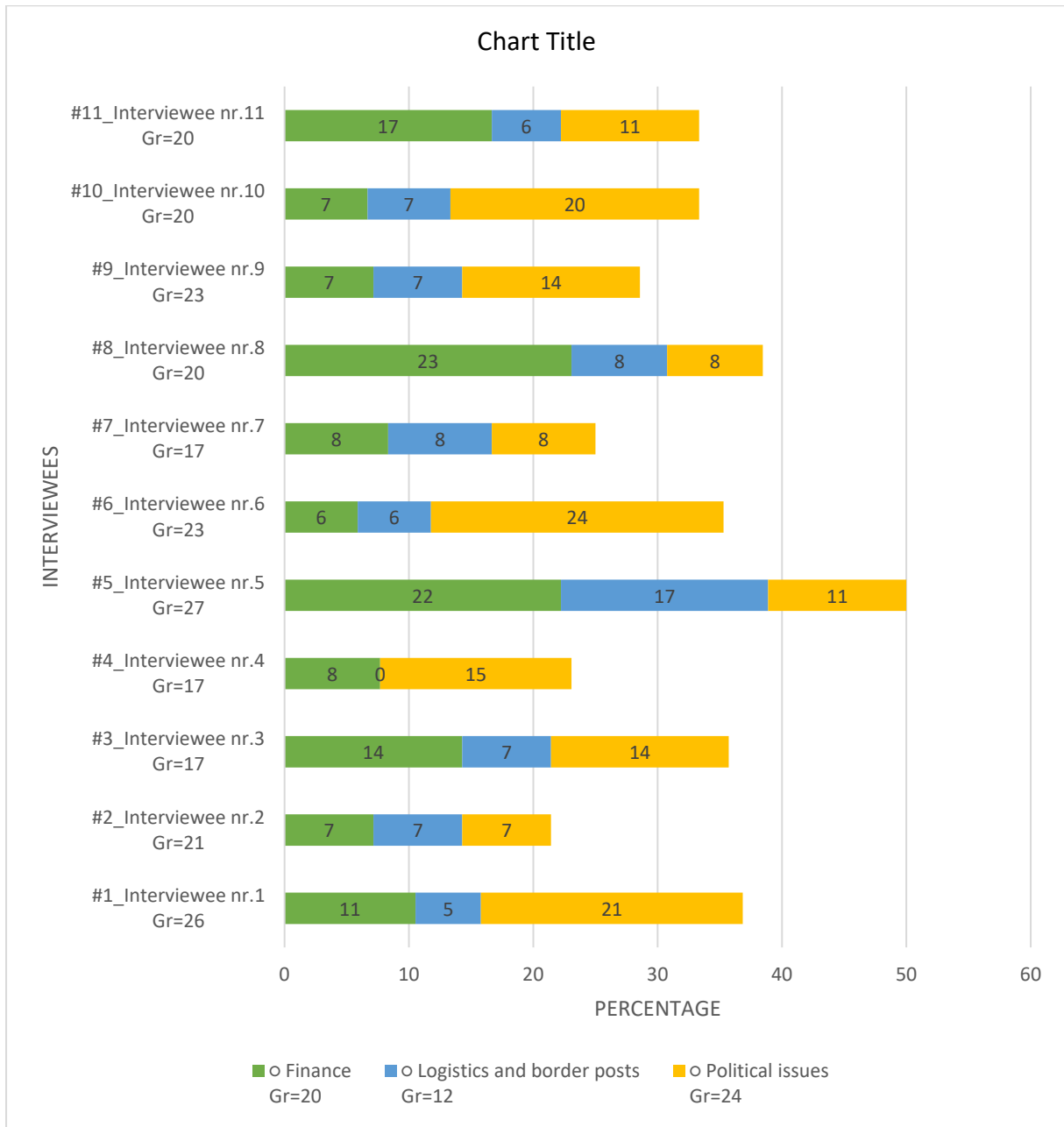
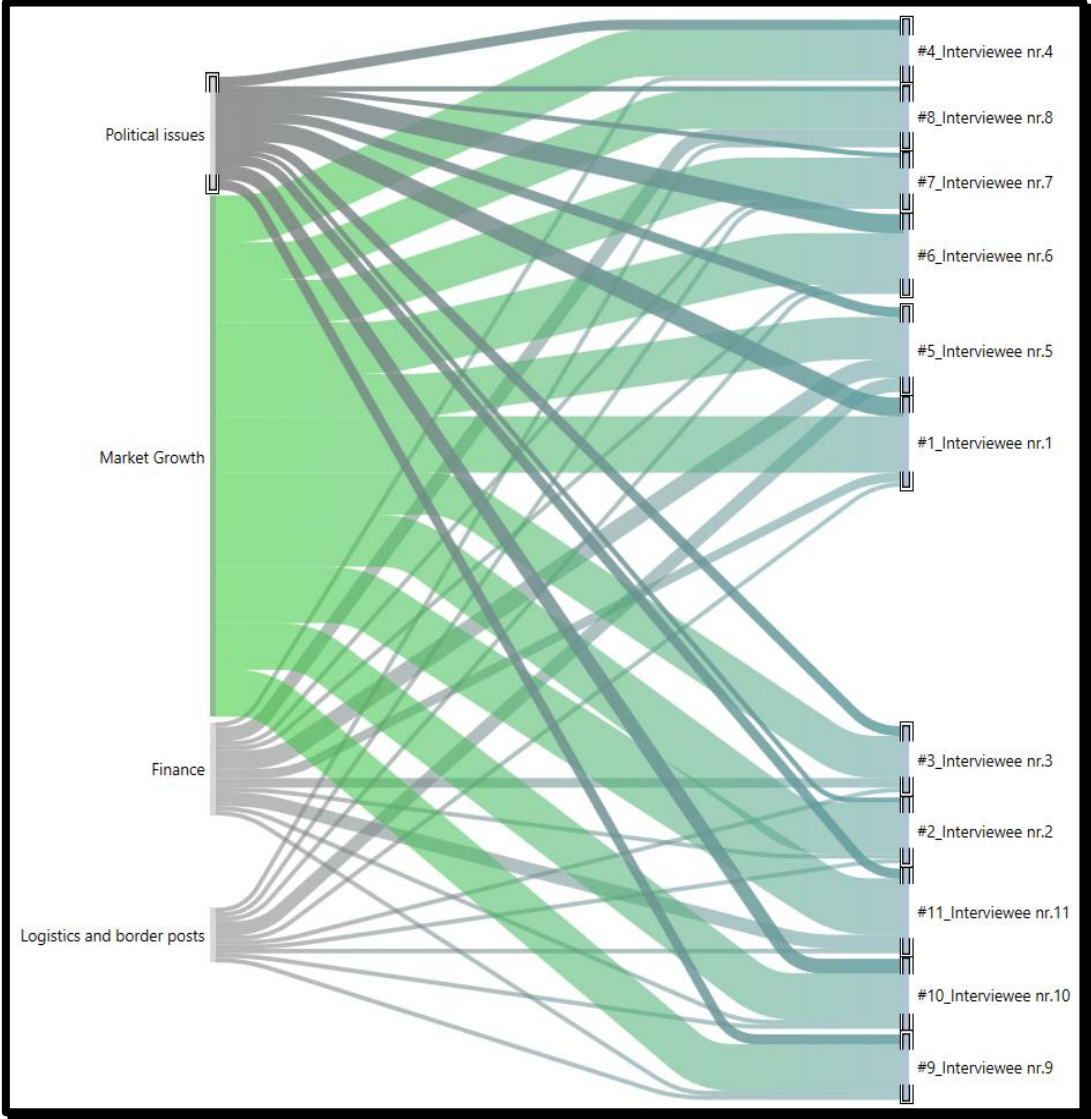


Figure 5 shows that data saturation was reached and that political instability is the main factor influencing the market growth. As stated by the International Monetary Fund, Political instability is regarded by economists as a serious malaise harmful to economic performance. Political instability will likely shorten policymakers' horizons, leading to suboptimal short-term macroeconomic policies. It may also lead to a more frequent switch of policies, creating volatility and, thus, negatively affecting macroeconomic performance (IMF, 2011).

Figure 5: Sankey Graph to Show Factors Influencing the Market Growth in the Southern African Market



4.6.2 Results of Foreign Investment

This study delves into the ramifications of foreign investment within the Southern African market, specifically focusing on the second objective. Analysis of the collected data has revealed noteworthy insights, as follows:

- Dominance of High Demand for African Commodities:** The foremost driving force behind foreign investment within the Southern African market emerges as the robust demand for African commodities. This compelling factor underscores the region's allure for foreign investors, as it presents a lucrative opportunity to

tap into the burgeoning market for natural resources and raw materials. As stated, The continent holds vast deposits of several minerals, such as gold, copper, uranium, and diamonds, which are in high demand globally. Due to their resources' potential, foreign investment has increased (AC, 2023).

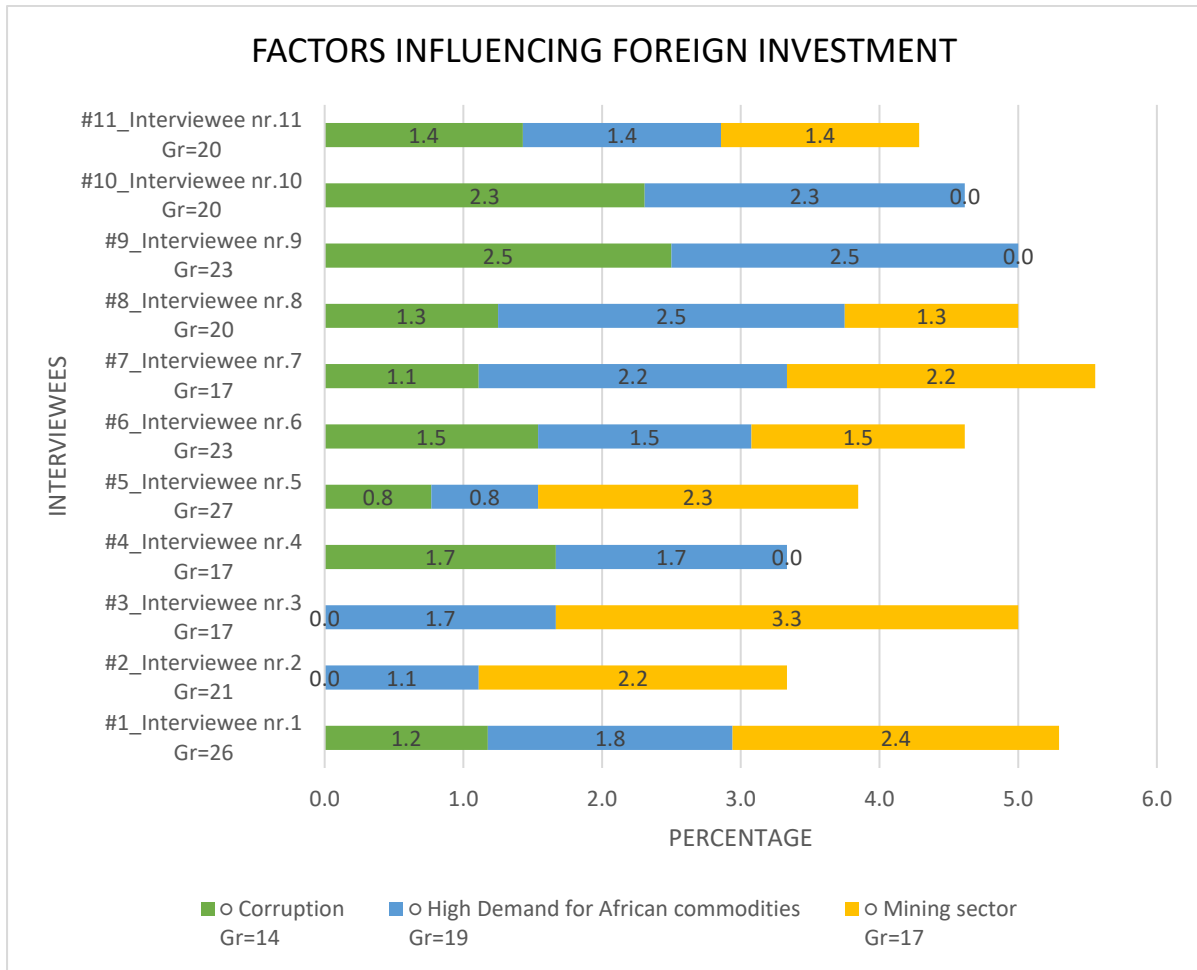
- **The Mining Sector:** Notably, a significant proportion of foreign capital inflow gravitates toward the mining industry, for example the Chinese markets buying over mines and investing into infrastructure. This industry stands out as a primary recipient of foreign investments, indicating a strategic alignment of investor interests with the abundant mineral wealth and resource extraction prospects prevalent in Southern Africa.
- **Impact of Corruption and Political Instability:** Another pivotal dimension unveiled by our analysis pertains to the adverse influence of corruption and political instability on foreign investment flows into the Southern African market. These factors are substantial deterrents, casting a shadow on the region's investment climate and posing challenges to prospective investors. As stated by Kaboeke (2012), the impact of political risk on foreign direct investment decisions by South African multinational corporations, The results indicate that the political risk factors have a significant impact on the decisions that South African multinational corporations make when it comes to foreign direct investment (FDI) and the success of the outcome.

The Southern African market's attractiveness to foreign investors is intrinsically linked to the confluence of factors such as high commodity demand and the prominence of the mining sector while also grappling with the adverse effects of corruption and political instability. These dynamics underscore the multifaceted nature of foreign investment in this region and emphasize the need for comprehensive strategies to mitigate associated risks and harness its potential for sustainable economic development.

-
- *China has invested a lot into Southern African countries, such as the building of bridges in Maputo and the roads, as well as the investment in the mines,*

which generates more potential for African companies. – Interviewee 6 (ID: 6:19)

Figure 6: Factors Influencing Foreign Investment



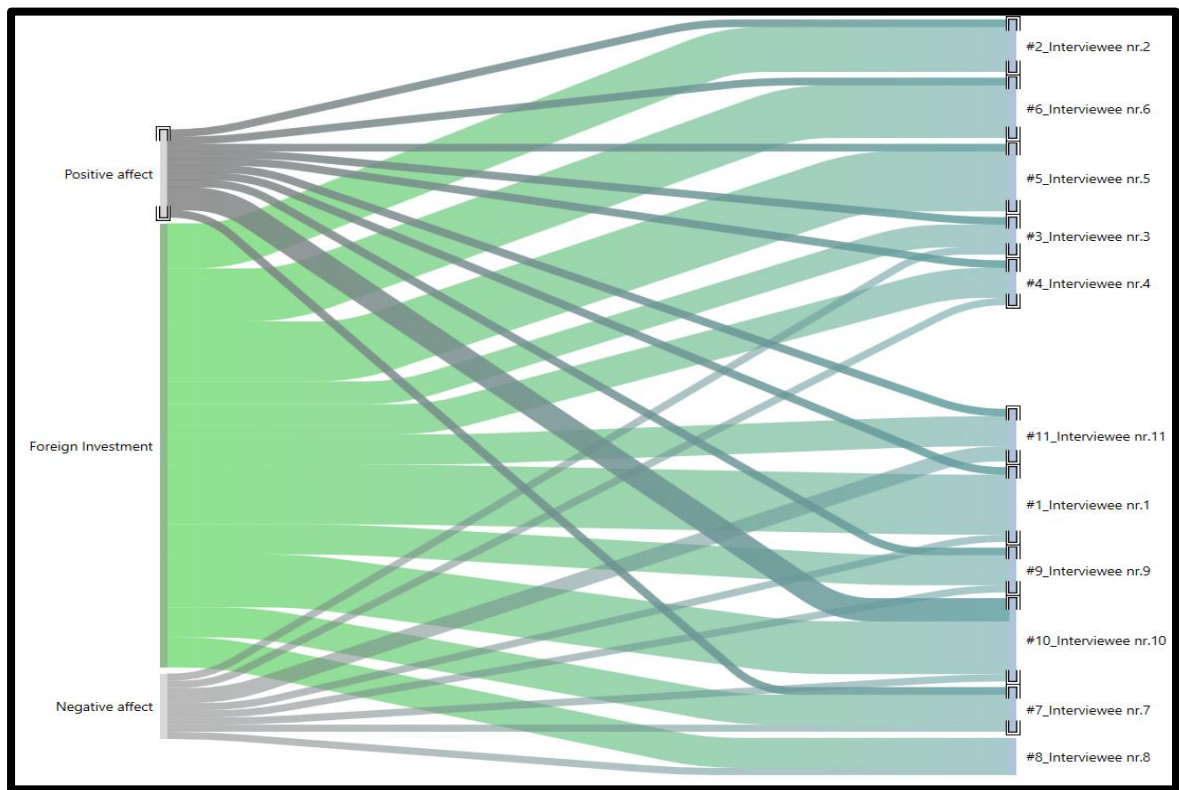
In these results, the researcher also checked if the general feeling of foreign investment has a positive or negative effect on the Southern African markets. The general response was that it has a positive and negative effect, with Positive being the stronger feeling between the two.

- *Foreign investors will have a positive effect and a negative effect on the Southern African markets – Interviewee 10 (ID: 10:17)*

As stated in the study of Makhoba, there is a positive relationship between foreign investors and the Southern African economy. A positive foreign direct investment (FDI) influx can lead to substantial economic growth. Similarly, a positive GDP shock can

encourage foreign capital inflows (Prince *et al.*, 2012). For example, as per the PWC's analysis of port development in sub-Saharan Africa, as a significant investor in numerous infrastructure projects across Africa, China is expected to play a more prominent role in future port projects (PWC, 2023c).

Figure 7: Sankey Graph to Show Positive and Negative Affect of Foreign Investment.



4.6.3 Positive Effects of Foreign Investment

Predominantly, when executed with due diligence and proper governance, foreign investment is perceived as yielding a positive impact. This sentiment is substantiated by its discernible advantages, notably in the form of substantial opportunities and financial resources. The infusion of foreign capital is notably instrumental in addressing a prominent need in Southern Africa, namely, the provision of critical funding to support various economic endeavours.

-
- *Without foreign investment, no African economy has the resources to fully develop and exploit the opportunities – Interviewee 1 (ID: 1:26)*
 - *Mining has shown great growth since the Chinese started investing. – Interviewee 6 (ID: 6:23)*
 - *China has invested a lot into Southern African countries, such as the building of bridges in Maputo and the roads, as well as the investment in the mines, which generates more potential for African companies. – Interviewee 6 (ID: 6:19)*
-

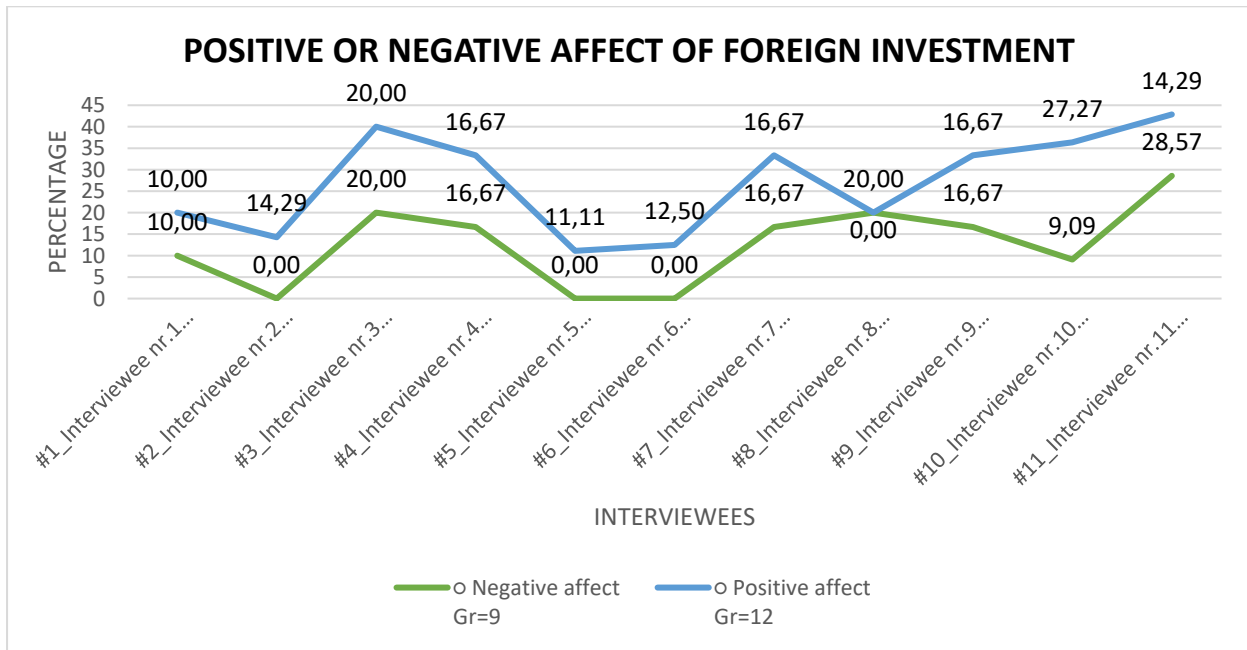
4.6.4 Negative Effects of Foreign Investment

Acknowledging the negative ramifications of foreign investment in Southern Africa is essential. One salient concern pertains to the disposition of profits accrued from such investments, whereby a notable proportion fails to be reinvested within the region. This aspect raises pertinent questions regarding the equitable distribution of gains and long-term economic sustainability. Moreover, the influx of foreign investments, particularly from China, has drawn attention to the issue of imported labour and capital-intensive methods. This practice often results in limited opportunities for the local population, as foreign entities tend to rely on their own personnel and equipment, potentially constraining the organic development of economic prospects within Southern Africa.

-
- *So foreign investments are essential. Chinese investments can look appealing. However, the quality is not always up to standard. – Interviewee 1 (ID: 1:27)*
-

Below is a graph showing the percentage positivity and negativity around foreign investment of each participant, and it is evident that the positive overpowers the negative.

Figure 8: Positive or Negative Affect of Foreign Investment



4.6.5 Knowledge and Impact of the AfCFTA (Africa Continental free Trade Agreement)

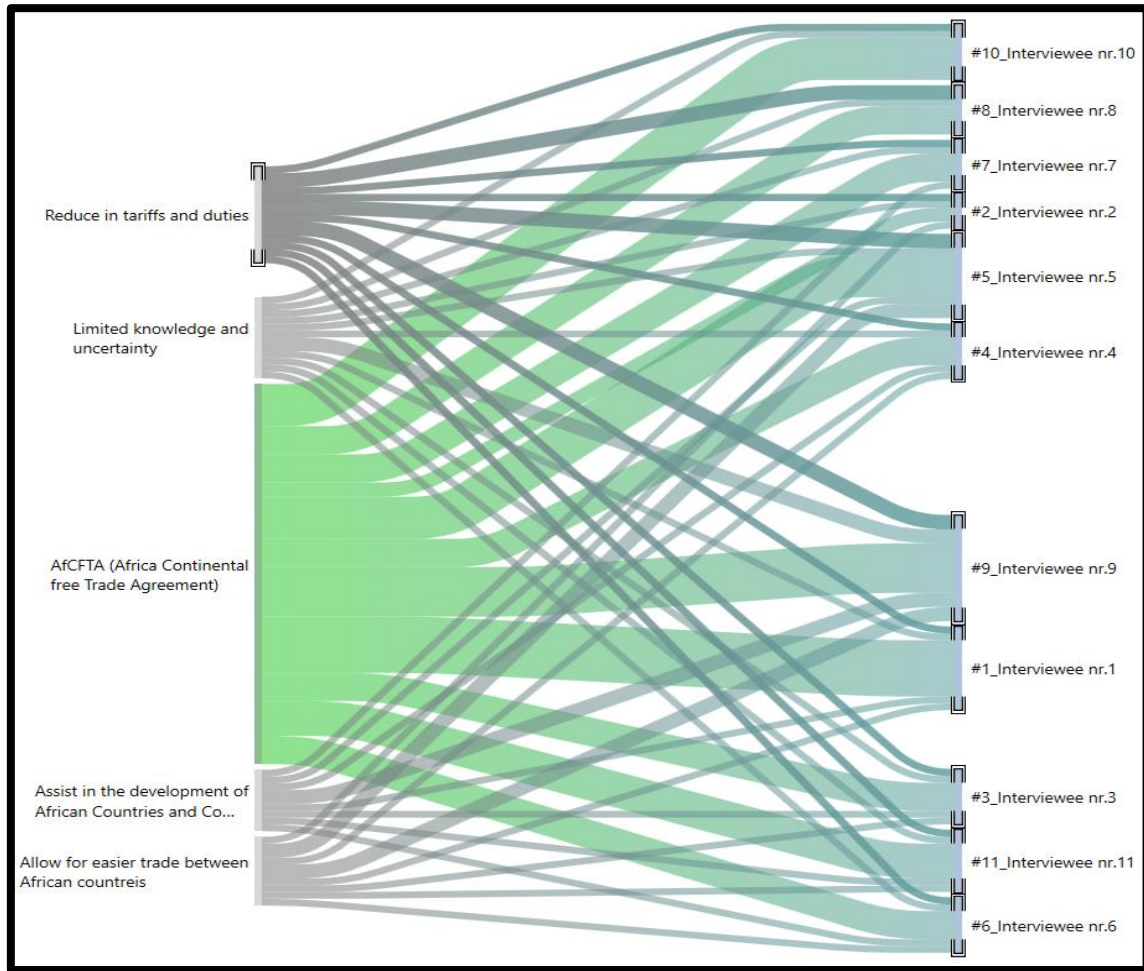
The first key finding for this section of the study reveals a notable gap in knowledge and a high level of uncertainty among respondents regarding the African Continental Free Trade Area (AfCFTA). Many study participants exhibited limited awareness of AfCFTA's objectives and implications. Instead, most respondents currently rely on the Southern African Development Community (SADC) for trade-related matters. This finding highlights the need for more extensive education and awareness campaigns to ensure that stakeholders are well-informed about AfCFTA.

- *I know very little about what the objective and the impact of the AfCFTA. We focus mainly on SADC countries – Interviewee 8 (ID: 8:8)*
- *There is a lack of exposure and knowledge about the AFCFTA. – Interviewee 9 (ID: 9:9)*

To ensure the credibility of these findings, we employed a data saturation analysis, as represented in the accompanying Sankey graph. This graphical representation illustrates the convergence of responses from interviewees, confirming that each

participant mentioned one or more of the four significant results. The saturation of these results highlights their robustness and relevance within the context of our study.

Figure 8: Visual Representation of factors of the AfCFTA and to Show Data Saturation was Achieved.



The research's second significant outcome underscores interviewees' optimistic expectations concerning AfCFTA's potential impact. Respondents strongly believed that AfCFTA would usher in substantial changes by reducing tariffs and duties associated with importing and exporting goods. This expectation reflects the overarching anticipation of a more favourable trade environment under AfCFTA, where cost barriers are expected to diminish, fostering increased trade activity. As stated by the CFI team, A free trade area is concerned with removing tariffs and regulations that are applied to member countries who trade with each other. Members establish common policies regulating trade terms, tariffs, and quotas (CFI, 2019).

-
- *We believe that the AfCFTA will reduce tariffs and duties. – Interviewee 1 (ID: 1:13)*
-

Another noteworthy result from our analysis is the perception that AfCFTA holds promise for the broader development of African nations. Respondents believed this pan-African trade agreement would contribute to economic growth, job creation, and infrastructure development across the continent. The study's findings suggest that interviewees view AfCFTA as a catalyst for sustainable development, a notion with significant implications for policy and investment decisions. As estimated by the World Bank, the AfCFTA will increase Africa's income by \$450 billion by 2035 and increase intra-African exports by more than 81% (Ngom, 2023).

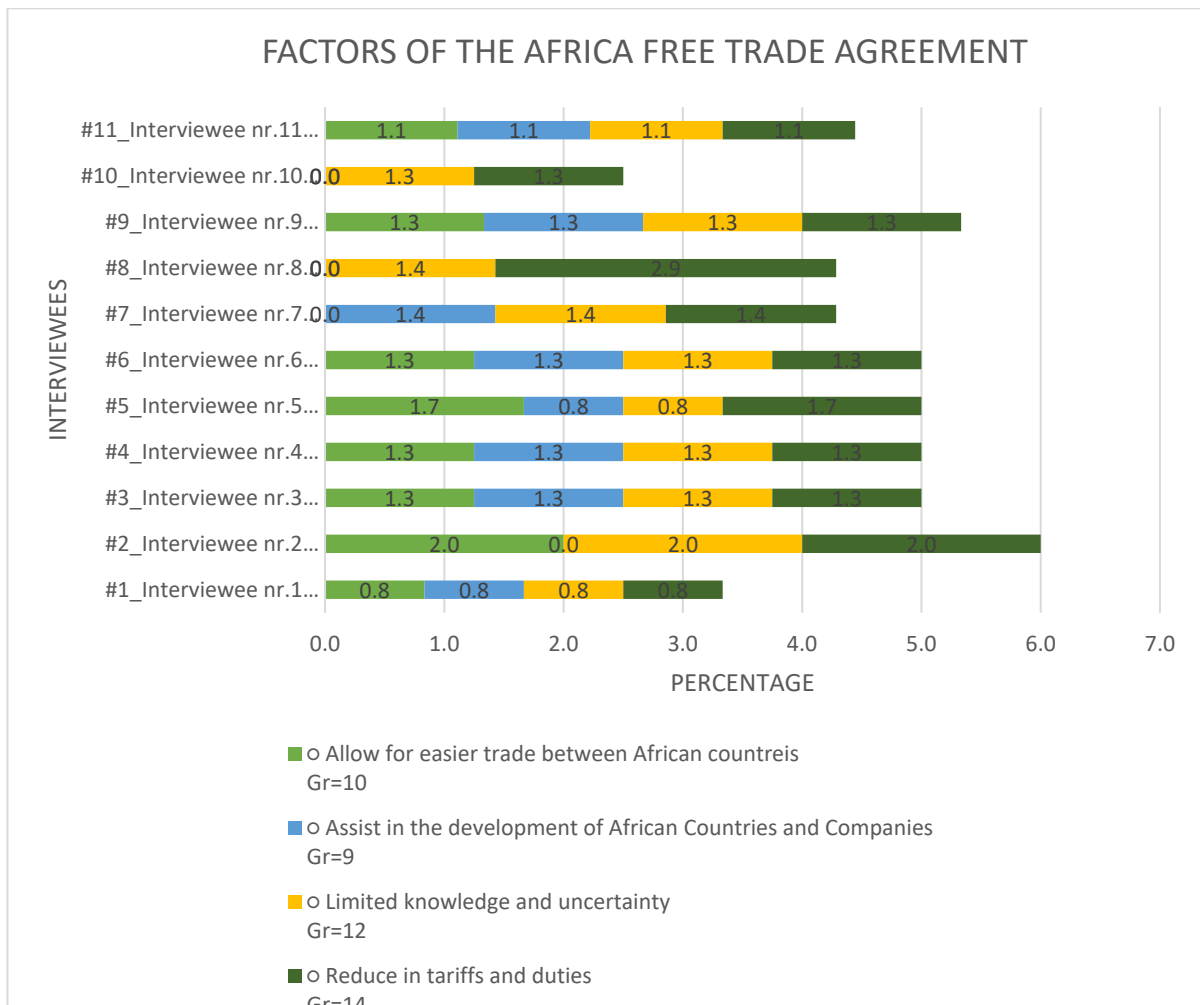
-
- *Yes, this will help a lot in terms of the movement of units when it comes to paperwork, customs and border control. This can even contribute towards the development of African businesses. – Interviewee 3 (ID: 3:8)*
-

The fourth key finding centres on the facilitation of intra-African trade. Respondents identified AfCFTA as a pivotal mechanism for simplifying and promoting trade activities among African countries. This observation underscores the potential for enhanced regional integration and cross-border trade, potentially benefiting South Africa's hydraulic equipment exports to the Southern African market.

-
- *Increase intra-Africa trade by lowering duties and insurance if there is trade between African countries – Interviewee 2 (ID: 2:12)*
-

Furthermore, below is a bar graph detailing the percentages of respondents endorsing each of the four identified results. This visualisation provides a clear understanding of the prevalence of these viewpoints among the study's participants, reinforcing the significance of these findings.

Figure 9: Factors of the Africa Free Trade Agreement



In summary, this section on the AfCFTA's impact on South African hydraulic equipment exports to the Southern African market reveals a range of key perceptions and expectations. These findings emphasize the importance of raising awareness about AfCFTA, highlight the anticipated benefits of reduced tariffs, underscore the potential for African development, and showcase the role of AfCFTA in facilitating smoother intra-African trade. These insights offer valuable input for policy formulation and strategic decision-making in the context of South Africa's trade within the Southern African region.

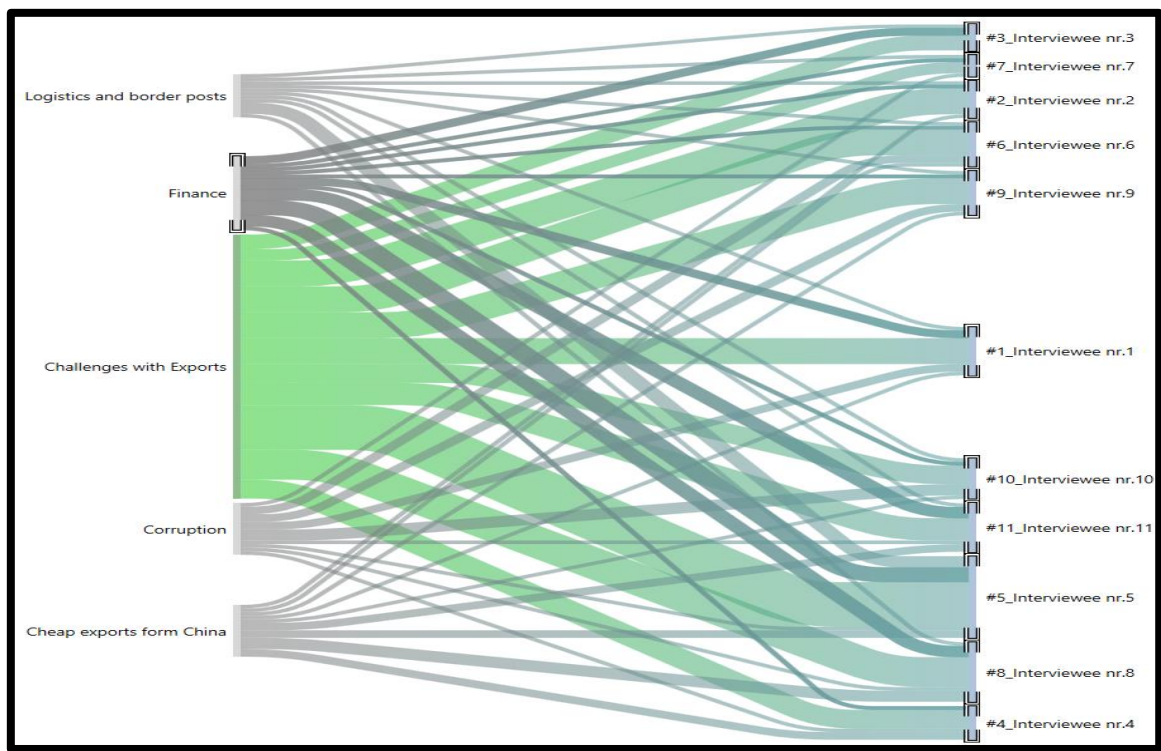
4.6.6 Challenges in the Export Market

Exporting products from South Africa to the Southern African market presents various organisational challenges. This section outlines the key challenges identified through

data analysis, focusing on finance, logistics at border posts, corruption and political issues, and competition from Chinese exports.

The below Sankey graph shows that data saturation was achieved in this result and that each interviewee has spoken about the challenges that were mentioned.

Figure 10: Visual Representation of Challenges with Exports and to Show Data Saturation was Achieved



4.6.7 Financial Hurdles

A significant challenge reported by interviewees was financial constraints. This encompasses:

- Availability of Forex: Organisations struggled with accessing foreign exchange (Forex) for cross-border transactions.
- *Finance availability, availability of funds (Zimbabwe struggles to get funds available to pay South African exporting companies). Interviewee 8 (ID: 8:12)*

- Bank Approval Delays: Obtaining finance approvals from South African banks proved to be a time-consuming process, and that is if the South African banks are willing to finance business propositions in Africa.

The bar Chart on next page shows the Percentage of Interviewees Reporting Financial Challenges.

4.6.8 Logistical Bottlenecks at Border Posts

Another major obstacle was the inefficiencies at border posts. This included:

- Clearance Delays: Imported equipment often faced lengthy clearance delays, causing disruptions.
- System Failures: Technical issues and system failures exacerbated delays at the border.

-
- *Logistics is one of the greatest challenges, vehicles stuck at borders not being able to transport goods to and from countries. Interviewee 1 (ID: 1:29)*
-

Border operations are affected by many challenges, which affect cross-border transport movements and trade flow (Chibira, 2021). The bar Chart below shows the percentage of interviewees reporting border post Challenges.

4.6.9 Corruption and Political Issues

Interviewees highlighted concerns related to corruption and political factors, such as:

- Unfair Tender Awards: Instances of tenders not being awarded fairly were reported.
- Bribery: Some organisations encountered challenges related to bribes being demanded or paid.

-
- *Corruption and bribes are also a great challenge when it comes to cross-border business. Interviewee 1 (ID: 1:30)*
 - *The challenges we face are bribery and corruption, as well as funding. Interviewee 11 (ID: 11:20)*
-

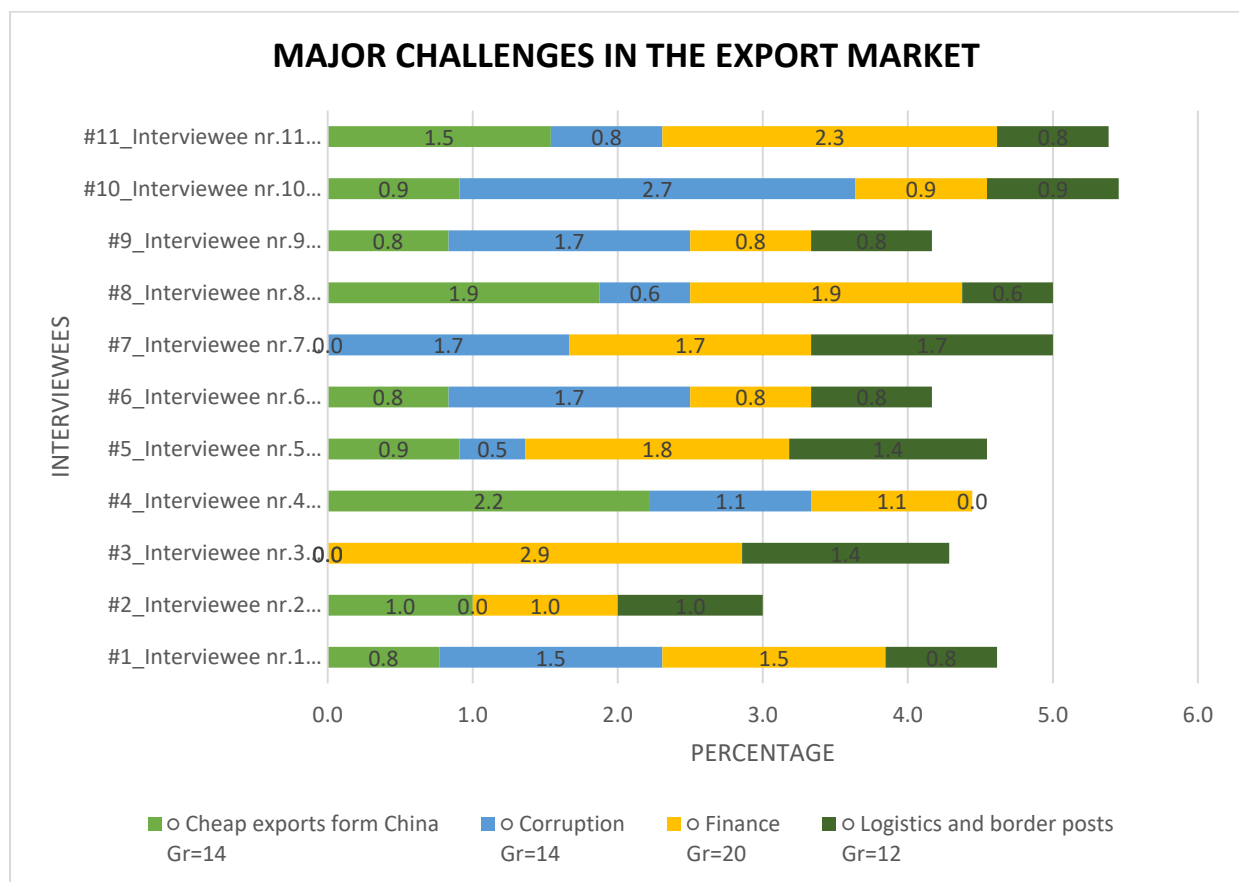
4.6.10 Competition from Chinese Imports

The Southern African market's price sensitivity posed a unique challenge:

- Cheap Chinese Imports: Chinese products, often lower in quality but competitively priced, dominated the market due to their affordability. As stated by Antonio Andreoni, South Africa's manufacturing industry has been negatively affected by the influx of Chinese imports. This has resulted in lower sales growth, reduced employment opportunities, and a decline in the survival rate of firms. The competition between firms has propagated through the country's domestic supply chain (Torreggiani et al., 2021).

Figure 12 shows the percentage of interviewees reporting that the competition from Chinese imports poses challenges.

Figure 11: Major Challenges in the Export Market



In conclusion, exporting products from South Africa to the Southern African market is marred by multifaceted challenges. Finance-related hurdles, logistical complexities at border posts, corruption, and intense competition from Chinese imports were the primary obstacles reported by the interviewees. These findings shed light on the critical issues organisations must navigate to succeed in this market.

4.7 CONCLUSION

In conclusion, the results section of this dissertation has provided a comprehensive and insightful exploration of various facets of the Southern African export market. The demographic and business characteristics of the respondents demonstrated a diverse range of experience levels among senior managerial professionals, enriching the depth of our research.

Our examination of expected market growth, backed by statistical evidence and data saturation, illuminated the dominant sectors contributing to regional market expansion. The Zambia mining sector, the Mozambique LP gas industry, and the Zimbabwean agricultural and mining sectors emerged as key drivers, underscoring this research's significance in elucidating the region's evolving economic landscape.

Furthermore, investigating factors influencing market growth unveiled three pivotal issues: political instability, constrained financial resources, and logistics challenges. These multifaceted challenges underscore the complexity of the regional business environment and its susceptibility to external factors.

The analysis of foreign investment in Southern Africa highlighted the strong attraction of the region for investors due to high commodity demand, particularly in the mining sector. However, the adverse effects of corruption and political instability serve as substantial deterrents, emphasizing the need for comprehensive strategies to mitigate risks and unlock the region's economic potential.

The Africa Continental Free Trade Agreement (AfCFTA) section sheds light on the perceptions and expectations regarding its impact on South African hydraulic equipment exports to the Southern African market. The findings underscored the

importance of raising awareness about AfCFTA, anticipated benefits from reduced tariffs, and its role in facilitating smoother intra-African trade, offering valuable insights for policy formulation and strategic decision-making.

The exploration of challenges in the export market revealed finance-related hurdles, logistical complexities, corruption, and competition from Chinese imports as the primary obstacles. These findings provide crucial insights for organisations seeking success in the Southern African export market.

In conclusion, as the researcher, I sought to align the outcomes of this dissertation's results section with the stated objectives. The objectives were guiding pillars, directing the research toward a comprehensive understanding of the Southern African export market.

CHAPTER 5

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

In this final chapter, the culmination of an in-depth study of the Southern African export market for hydraulic equipment is presented. This research, striving towards its objectives, aimed to unravel the complexities of this dynamic market and shed light on its future trajectory.

The research embarked on a journey to understand the anticipated market growth in Southern Africa over the next five years, discern the impact of global and governmental investments, identify sectors utilising hydraulic equipment, assess the influence of the African Continental Free Trade Area (AfCFTA) on South African exports, and uncover challenges impeding export market growth.

The study objectives were meticulously crafted to address critical gaps in understanding the Southern African market. The evolving economic landscape of the region underscored the significance of these objectives. The research illuminated the intricate interplay of factors shaping market growth, making it indispensable for stakeholders to navigate the complexities of the Southern African business environment.

The meticulous research methodology served as the compass guiding this study. The study conducted a comprehensive literature review and one-on-one semi-structured interviews with industry experts, thus employing a qualitative research approach. This interpretive methodology facilitated a deep dive into the subjective experiences and challenges organisations operating in the hydraulic equipment sector faced. Adherence to ethical principles ensured the integrity and credibility of the study.

5.2 CONTRIBUTION OF THE STUDY

This study significantly contributes in three key areas: theoretical, practical, and industry. Theoretical contributions are made by enhancing the existing body of knowledge concerning the export market of hydraulic equipment in the mining and industrial sector of Southern Africa, along with insights into global and government investments in the Southern African market. This enriches the theoretical framework and deepens our understanding of the complexities in these sectors. From a practical perspective, the research provides valuable insights for global organisations utilising South Africa as a gateway to the Southern African market. It offers essential guidelines, enabling these entities to navigate the complexities of the African market effectively, fostering growth and sustainability.

The study illuminates the potential for growth in hydraulic equipment exports within the Southern African market, offering practical strategies for organisations aiming to expand their reach. Regarding industry contribution, this research equips organisations with a comprehensive understanding of the export market dynamics, unveiling new opportunities for business development and network expansion. By shedding light on previously unexplored avenues, the study empowers industry players to make informed decisions, fostering innovation and competitiveness in the ever-evolving market landscape. This study is pivotal in advancing scholarly discourse, facilitating practical business strategies, and fostering industry growth in the dynamic context of Southern African hydraulic equipment exports.

5.3 KEY FINDINGS AND INSIGHTS

The study's main objective was to determine the potential market growth of hydraulic equipment in the Southern African market in the next five years. The findings of this research incorporated this objective, revealing a wealth of insights. Notably, the dominant sectors driving regional market expansion emphasise the pivotal role played by industries such as mining in Zambia, LP gas in Mozambique, and agriculture and mining in Zimbabwe. The study highlighted significant challenges, including political instability, financial constraints, logistical complexities, corruption, and competition from Chinese imports.

5.3.1 Market Growth in Southern Africa

In concluding on market growth and where the market is expected to grow, backed by robust statistical evidence and data saturation, this study underscores the anticipated growth in Zambia's copper mines, Mozambique's LP gas sector, and Zimbabwe's agricultural industry, emphasising their pivotal roles in driving regional market expansion. These compelling findings enrich our comprehension of the region's economic dynamics and exemplify the meticulousness of this research endeavour.

5.3.2 Impact of Global and Government Investments

This study sheds light on the complexities surrounding foreign investment in the Southern African market. The region's appeal to investors stems from the high global demand for African commodities, particularly in the mining sector. However, corruption and political instability pose significant challenges, hindering the flow of foreign investments. Addressing these challenges and leveraging the rich resource base demands strategic and ethical business practices. By implementing comprehensive risk mitigation strategies, fostering transparency, and promoting political stability, stakeholders can unlock the region's vast potential, paving the way for sustainable economic growth and development in Southern Africa.

5.3.3 Industry Sectors Utilising Hydraulic Equipment

The research findings have provided valuable insights into the Southern African market, explicitly highlighting key industries such as mining, transport, and agriculture that heavily depend on hydraulic equipment. This comprehensive understanding of market dynamics is pivotal for businesses seeking regional opportunities.

5.3.4 African Continental Free Trade Area (AfCFTA) Impact

For this objective, the researcher underscores the transformative potential of the AfCFTA on South African hydraulic equipment exports to the Southern African market. The perceptions and expectations revealed here emphasise the necessity of raising awareness about AfCFTA and the optimism surrounding reduced tariffs and its pivotal

role in African development. Moreover, the findings shed light on AfCFTA's crucial function in facilitating more seamless intra-African trade. These insights serve as a compass for policymakers and business leaders, offering strategic guidance in the complex landscape of South Africa's trade within the Southern African region.

This study clearly shows the intricate challenges confronting South African exports to the Southern African market. Financial barriers, logistical intricacies at border points, corruption, and the formidable competition posed by Chinese imports emerge as significant hurdles.

5.3.5 Challenges Affecting Export Market Growth

The study has shown the intricate web of challenges organisations export products from South Africa to the Southern African market face. The identified hurdles, including financial barriers, logistical intricacies at border posts, pervasive corruption, and fierce competition from Chinese imports, underscore the complexity of this market landscape. To successfully navigate these challenges.

5.4 RECOMMENDATIONS ON RESULTS

After analysing the presented study's results and findings, the researcher has compiled a set of recommendations for the identified central themes and problems.

5.4.1 Recommendations on market growth in Southern Africa

It is apparent in the data that the market is expected to grow in Zambia, Mozambique and Zimbabwe in the next five years. Organisations aiming to enter these markets should tailor their strategies accordingly. The researcher provides specific recommendations for entering these expanding sectors of mining, LP gas, and agriculture:

- **In-depth market research and local understanding:** Allocate resources for comprehensive market research to understand local preferences, regulations, and market dynamics in Zambia, Mozambique, and Zimbabwe.

- **Strategic partnerships and local collaborations:** Facilitate smoother market entry, benefitting from the local partner's knowledge, distribution channels, and established relationships with key stakeholders.
- **Adherence to regulations and local compliance:** Encourage regulatory transparency and compliance among local businesses, fostering a conducive business environment and attracting foreign investments.
- **Market training and development:** Access a skilled workforce, leading to improved operational efficiency and quality of products or services, Organisations should offer market training and development to enable a skilled workforce.

5.4.2 Recommendations on the Impact of Global and Government Investments.

Foreign investment impacts the market growth in Southern Africa. Here are five specific recommendations to enhance the effect on management, businesses exporting into Southern Africa, businesses in Africa, and the general decision-making of organisations.

- **Invest in comprehensive due diligence:** So that local businesses can benefit from increased transparency and reduced corruption, fostering fair competition and a level playing field.
- **Promote Ethical Business Practices:** Encourage a corporate culture emphasising ethics, integrity, and compliance this should be done with a reward system and external auditing teams to ensure compliance with anti-corruption laws.
- **Collaborate with Local Communities:** Gain local support by employing and training the local workers, this will support a smoother operations and reduced social and political risks.
- **Advocate for transparent regulatory frameworks:** Advocate for transparent and predictable regulatory environments, providing clarity for strategic planning and investment decisions this will strengthen the overall business ecosystem, fostering entrepreneurship and supporting the growth of local businesses.

5.4.3 Recommendations on Sectors Utilising Hydraulic Equipment

Companies should focus on tailored strategies to export hydraulic equipment into the Southern African market successfully. Establishing strong partnerships with local distributors and suppliers can facilitate smoother market entry. Additionally, adapting products to meet specific industry needs and ensuring compliance with regional standards and regulations will enhance market acceptance. Furthermore, investing in localised marketing efforts and providing exceptional after-sales support can foster trust and brand loyalty among Southern African customers. By incorporating these recommendations, companies can navigate the complexities of the market and build sustainable relationships, ultimately ensuring a successful entry and growth in this dynamic region.

5.4.4 Recommendations on the African Continental Free Trade Area (AfCFTA) Impact

This study has proven that the knowledge about the AfCFTA is very limited, but if implemented correctly, it can make a significant difference. The following recommendations are made:

- **Targeted awareness campaigns:** Launch targeted awareness campaigns addressing reduced tariffs under AfCFTA and its benefits for South African hydraulic equipment exports. This will raise awareness among businesses, policymakers, and stakeholders about the advantages of AfCFTA.
- **Anti-Corruption Measures and Transparent Business Practices:** Implement stringent anti-corruption measures and promote transparent business practices within the export sector. This will enhance credibility, foster trust among partners, and create a level playing field,
- **Customised Export Strategies:** Develop customised export strategies tailored to specific Southern African markets, considering local demands and preferences. Improve market penetration by aligning products with the unique needs of each market, increasing the likelihood of successful exports and market acceptance.

5.4.5 Recommendations on the challenges affecting the export market growth

Companies aiming to export hydraulic equipment into the Southern African market should adopt a multifaceted approach. Firstly, cultivating strong local partnerships and understanding the regional market nuances are essential. Tailoring products to meet specific regional demands and ensuring compliance with local regulations can enhance market acceptance. Moreover, investing in robust supply chain management and exploring innovative financing options can mitigate financial challenges. Lastly, continuous market research and adaptability to evolving market trends are imperative. By integrating these recommendations into their strategies, companies can bolster their resilience and increase their chances of thriving in the competitive Southern African market.

5.5 LIMITATIONS OF THE STUDY

The primary limitation of this study lies in its geographical boundaries, as the researcher exclusively focused on organisations in Gauteng. Consequently, the findings may not accurately portray the broader South African landscape about this specific industry sector.

The sensitive and confidential nature of the data under investigation posed challenges, potentially affecting organisations' willingness to participate and consequently limiting the researcher's access to essential information.

5.6 RECOMMENDATIONS FOR FUTURE STUDIES

Considering the intricate challenges unveiled in the study focusing on hydraulic equipment exports in the Southern African market, here are some recommendations for future studies.

Future studies should prioritise in-depth market research, specifically focusing on sectors like mining, LP gas, and agriculture within Southern Africa. Understanding local market dynamics and careful strategic planning are crucial for successful market entry.

Researchers should emphasise the significance of forming strong local partnerships and collaborations. Investigating local regulations and industry standards is essential for organisations aiming to operate ethically and effectively in the Southern African market.

Future studies should advocate for diversified investments across multiple sectors within Southern Africa, moving beyond solely focusing on mining. Implementing robust anti-corruption policies within organisations is imperative, fostering a transparent and ethical business environment.

Exploration of tailored market entry strategies is essential. This includes adapting products to meet specific industry needs, ensuring compliance with regional standards, establishing strong partnerships with local distributors, focusing on localised marketing efforts, and providing exceptional after-sales support.

Future research should highlight the importance of continuous market research and adaptability to evolving market trends. Companies should invest in robust supply chain management and explore innovative financing options to mitigate the financial challenges of market entry and expansion.

This study has answered many questions regarding exporting into the Southern African market. However, it has also opened opportunities to address other emerging questions within this field.

5.7 CONCLUSION

In this mini-dissertation, the researcher explored the landscape of hydraulic equipment exports in Southern Africa's mining and industrial sectors. The study highlighted the region's economic intricacies and the pivotal role of hydraulic equipment in crucial industries. It delved into challenges like political instability and financial constraints while emphasising opportunities, especially with initiatives like AfCFTA.

However, the study has limitations. It couldn't delve deeply into specific regional variations, and the rapidly changing economic landscape might impact the relevance of some findings over time.

This dissertation has offered insights into navigating Southern Africa's intricate market. It emphasises the importance of strategic planning, ethical practices, and adaptability. As the region evolves economically, hydraulic equipment exports symbolise innovation and resilience despite the inherent challenges in the African market.

REFERENCES

- AC (Africa.com). 2023. *The top commodities in African economies*.
<https://www.africa.com/the-top-commodities-in-african-economies/#:~:text=The%20continent%20boasts%20vast%20reserves,related%20industries%20in%20African%20countries>. Date of access: 16 September 2023
- Acha, L. & Landry, S. 2019 *Spotlighting opportunities for business in Africa and strategies to succeed in the world's next big growth market*. (Brookings).
<https://www.brookings.edu/research/spotlighting-opportunities-for-business-in-africa-and-strategies-to-succeed-in-the-worlds-next-big-growth-market/> Date access: 3 August 2022.
- ADB (Africa Development Bank Group). 2018. *Southern Africa economic outlook*.
https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/2018AEO/African_Economic_Outlook_2018_Southern-Africa.pdf Date of access: 9 July 2023
- ADB (Africa Development Bank Group). 2023. *Growth performance and outlook for Southern Africa, 2020-2024*. <https://www.afdb.org/en/documents/africas-macroeconomic-performance-and-outlook-january-2023> Date of access: 1 August 2023
- AFR-IX (Telecom). 2021, 28 September. *Comparison of foreign countries direct investment in Africa*. <https://afr-ix.com/comparison-of-fdi-in-africa/> Date of access: 4 August 2023
- Air & Hydraulic Equipment. 2020. Which industries most use hydraulics and how do they benefit? *AHE NEWS*, 35. <https://aheinfo.com/news/which-industries-most-use-hydraulics-and-how-do-they-benefit/> Date of access: 15 March 2022.
- Aleksandras, M. 2018. Towards an Explicit Research Methodology: Adapting Research Onion Model for Futures Studies. *Journal of Future Studies*, 23(2): 29-44. Doi:10.6531/JFS.201812_23(2).0003

- Bell, E. & Bryman, A. 2007. *The Ethics of Management Research: An Exploratory Content Analysis*. *British Journal of Management*, 129: 5-7. Doi: <https://doi.org/10.1111/j.1467-8551.2006.00487.x>
- Bengtsson, M. 2016. How to plan and perform a qualitative study using content analysis. *NursingPlus Open*, 2:8-14. Doi: <https://doi.org/10.1016/j.npls.2016.01.001>
- Britannica. 2020a. *Diamonds, gold, and imperialist intervention (1870–1902)*. <https://www.britannica.com/place/South-Africa/Diamonds-gold-and-imperialist-intervention-1870-1902> Date of access: 20 June 2023
- Britannica. 2020b. *Resources and power*. <https://www.britannica.com/place/South-Africa/Resources-and-power> Date of access: 20 June 2023
- Brown, JR. 2022, 20 August. *What is the metals and mining sector?* [Blog Post] <https://www.investopedia.com/ask/answers/040615/what-metals-and-mining-sector.asp#:~:text=The%20metals%20and%20mining%20sector%20is%20the%20industry%20dedicated%20to,%2C%20industrial%20applications%2C%20and%20investments> Date of access: 10 October 2022
- Bryman, A., Bell, E., Hirschsohn, P., Dos Santos, A., Du Toit, J., Masenge, A., Van Aardt, I. & Wagner, C. 2015. *Research methodology: Business and management contexts*. Cape Town: Oxford University.
- BTWK (Bowmans: The Value of Knowledge). 2019. *Cross-border loan transactions from a South African perspective*. <https://bowmanslaw.com/insights/finance/cross-border-loan-transactions-from-a-south-african-perspective/> Date of access: 14 September 2023
- CF (Custom Fluid power) 2023 *The future of hydraulic equipment: trends, innovations & advancement*. <https://www.custom.com.au/future-of-hydraulic-equipment/#:~:text=Hydraulic%20power%20is%20used%20to,the%20risk%20of%20worker%20injury>. Date of access: 11 October 2022

- CFI (Corporate Finance Institute). 2019. *Free trade area*.
<https://corporatefinanceinstitute.com/resources/economics/free-trade-area/>
Date of access: 17 September 2023
- Chibira, E. 2021, 24 August. *AfCFTA: Improving border efficiency in sub-saharan africa: the need to look at 'Beyond the border' operations* [Blog post]
<https://www.tralac.org/blog/article/15328-improving-border-efficiency-in-sub-saharan-africa-the-need-to-look-at-beyond-the-border-operations.html> Date of access: 17 September 2023
- Clements, J. 2023, 11 May. *What are the benefits of using interviews in research?* [Blog post] <https://www.legaltranscriptionservice.com/blog/what-the-benefits-of-using-interviews-in-research/> Date of access: 10 September 2023
- Collis, J., & Hussey, R. 2013. *Business research: A practical guide for undergraduate and postgraduate students*. London: Palgrave Macmillan.
- DBSA (Development Bank of Southern Africa). 2023. *Socio-economic factors that challenge SA's education system*. <https://www.dbsa.org/article/socio-economic-factors-challenge-sas-education-system> Date of access: 25 July 2023
- Digvijay Pawar & Rohit Sawant. 2020 *Hydraulic equipment market (mobile and industrial), end-user (mining and construction) global opportunity analysis and industry forecast, 2020-2027*.
<https://www.alliedmarketresearch.com/hydraulic-equipment-market-A06534>
Date of access: 30 March 2022
- EN (Engineering News). 2018. *Hydraulic industry on the rise*.
https://www.engineeringnews.co.za/article/hydraulic-industry-on-the-rise-2018-04-17/rep_id:4136 Date of access: 18 March 2022
- Export Supply Constraints in Africa*. <https://www.afdb.org/fileadmin/uploads/afdb/Documents/Knowledge/09484317-EN-CHALLENGES-AND-PROSPECTS-OF-RELAXING-EXPORT-SUPPLY-CONSTRAINTS-IN-AFRICA.PDF>. Date of access: 11 October 2022

- Fernando, J. 2022, 19 July. *Compound Annual Growth Rate (CAGR): Formula and calculation*. [Blog post]
[https://www.investopedia.com/terms/c/cagr.asp#:~:text=The%20compound%20annual%20growth%20rate%20\(CAGR\)%20is%20the%20rate%20of,of%20the%20investment's%20life%20span](https://www.investopedia.com/terms/c/cagr.asp#:~:text=The%20compound%20annual%20growth%20rate%20(CAGR)%20is%20the%20rate%20of,of%20the%20investment's%20life%20span). Date of access: 6 October 2022
- Fleming, J. & Zegwaard, K.E. 2018. Methodologies, methods and ethical considerations for conducting research in work-integrated learning. *International Journal of Work-Integrated Learning*, 19(3): 205-213
- Fusch, P.I. & Ness, L.R. 2015. Are we there yet? Data saturation in qualitative research. *The Qualitative Report*, 20(9):1408-1416. Doi:
<https://doi.org/10.46743/2160-3715/2015.2281>
- Hammel, A., White, C., Pfeiffer, S. & Miller, D. 2000. Pre-colonial mining in Southern Africa. *The Journal of The South African Institute of Mining and Metallurgy*, 1/2:49-51, Jan/Feb.
- Hanusch, M., Baskaran, G. 2019, 29 July. *What is the contribution of the mining sector to Southern African economies* [Blog Post].
<https://blogs.worldbank.org/africacan/what-contribution-mining-sector-southern-african-economies> Date of access: 15 August 2023
- Hayes, A. 2022. *Direct Foreign Investment (FDI): What it is, types, and examples*.
<https://www.investopedia.com/terms/f/fdi.asp> Date of access: 8 October 2022
- HBR (Harvard Business Review). 2023. *The globalization of markets*.
<https://hbr.org/1983/05/the-globalization-of-markets> Date of access: 18 March 2023
- IET (Indeed editorial team) 2022. *What is the industrial sector? Four economic categories and primary examples*. <https://www.indeed.com/career-advice/career-development/industrial-sectors> Date of access: 11 October 2022
- IMF (International Monetary Fund). 2012. *How does political instability affect economic growth?* <https://www.imf.org/external/pubs/ft/wp/2011/wp1112.pdf>
 Date of access: 17 September. 2023

- IMF (International Monetary Fund). 2023. *Trade integration in Africa unleashes the continent's potential in a changing world*. (DP/2023/003).
<https://www.imf.org/en/Home> Date of access: 6 July 2023
- IOA (Inter Ocean Advisors LLC). 2016. *Hydraulic Cylinder Industry Report*.
<https://ioadvisors.com/2016/04/2016-hydraulic-cylinders-industry-report/> Date of access: 2 April 2022.
- ITA (International Trade Administration). 2022a. *Botswana - Country commercial guide minning & minerals*. <https://www.trade.gov/country-commercial-guides/botswana-mining-minerals> Date of Access: 22 June 2023
- ITA (International Trade Administration). 2022b. *Mozambique - Country commercial guide*. <https://www.trade.gov/country-commercial-guides/mozambique-oil-gas-0#:~:text=Although%20development%20of%20onshore%20LNG,in%20the%20north%20of%20the> Date of access: 14 September 2023
- ITA (International Trade Administration). 2022c. *Namibia - Country commercial guide minning & minerals*. <https://www.trade.gov/country-commercial-guides/namibia-mining-and-minerals> Date of Access: 22 June 2023
- ITA (International Trade Administration). 2022d. *Zimbabwe - Country commercial guide minning & minerals*. <https://www.trade.gov/country-commercial-guides/zimbabwe-mining-and-minerals> Date of Access: 22 June 2023
- Jebuni, CD. 2006. *Challenges and prospects of relaxing export supply*. [2006 AEC - Challenges and prospects of Relaxing Export Supply Constraints in Africa | African Development Bank Group - Making a Difference \(afdb.org\)](https://www.afdb.org/en/knowledge/publications/2006-aec-challenges-and-prospects-of-relaxing-export-supply-constraints-in-africa) Date of access: 10 October 2023.
- Jones, C.D. & Ndofor, H.A. & Li, M. 2022. *Chinese economic engagement in Africa: implications for U.S Policy*. [The Implications of Chinese Economic Engagement in Africa - FPRI Events](https://www.fpri.org/events/2022/06/22/the-implications-of-chinese-economic-engagement-in-africa-fpri-events) Date of Access: 22 June 2023
- Kagan, J. 2021. OEM: *What original equipment manufacturer means, with examples*.
<https://www.investopedia.com/terms/o/oem.asp> Date of access: 8 October 2022

- Koboekae, T. 2012. *The impact of political risk on foreign direct investment decisions by South African multinational corporations*. Sandton: Gordon Institute of Business Science. https://repository.up.ac.za/bitstream/handle/2263/30613/dissertation_2012.pdf?sequence=1&isAllowed=y Date of access: 16 September 2023
- Kramer-Mbula, E., & Scerri, M. 2015. *An important aspect of economic integration would be the transition from national innovation systems to a single regional innovation system*. [Chttps://en.unesco.org/sites/default/files/usr15_southern_africa.pdf](https://en.unesco.org/sites/default/files/usr15_southern_africa.pdf) Date of access: 8 July 2023
- Loots, E., & Kabundi, A. 2012. Foreign direct investment to Africa: trends, dynamics and challenges. *African Dynamics*, 15(2). http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S2222-34362012000200002 Date of access: 10 August 2023
- Lorenzetti, D.L. 2007. Identifying appropriate quantitative study designs for library research. *Evidence-Based Library and Information Practice*, 2(1):3-14. Doi: <https://doi.org/10.18438/B8V30J>
- MAM (Markets and Markets). 2021. *Hydraulics market with COVID-19 impact analysis by components (motors, pumps, cylinders, valves, filters, accumulators, transmissions, others), type (Mobile hydraulics and Industrial hydraulics), end user, and region - Global Forecast to 2025*. <https://www.marketsandmarkets.com/Market-Reports/hydraulics-market-209607944.html> Date of access: 23 March 2022
- Maphumulo, T. & Bhengu, R. 2019. Challenges of quality improvement in the healthcare of South Africa post-apartheid. *Critical review*, 42(1): a1901 Doi: <https://doi.org/10.4102/curationis.v42i1.1901> Date of access: 5 July 2023
- McNeil, I. 1990. *Technology. An encyclopaedia of the history of technology*. London: Routledge.
- Merriam, S.B. & Tisdell, E.J. 2015. *Qualitative research: A guide to design and implementation*. London: Wiley.

https://books.google.co.za/books?hl=en&lr=&id=JFN_BwAAQBAJ&oi=fnd&pg=PA137&dq=Merriam,+S.B.+and+Tisdell,+E.J.,+2015.+Qualitative+research:+A+guide+to+design+and+implementation.+John+Wiley+%26+Sons.+137&ots=wO0PKK4zc4&sig=lix_ruD3adHnzsdqngRFM2nPJVA&redir_esc=y#v=onepage&q&f=false Date of access: 9 August 2022.

Mining Weekly. 2018. *Botswana's Karowe Mine – Home to exceptional diamonds and the second-largest diamond in history.*

<https://www.miningweekly.com/article/botswanas-karowe-mine-home-to-exceptional-diamonds-and-the-second-largest-diamond-in-history-2018-05-30/>

Date of access: 15 July 2023

MMSD (The Mining, Minerals and Sustainable Development Project). 2018. *IIED.*

<https://www.iied.org/sites/default/files/pdfs/migrate/G00901.pdf> Date of

access: 28 June 2023

Montmasson-Clair, G. & Deonarian, B. 2017. *Regional integration in Southern Africa: a platform for electricity sustainability.* https://unctad.org/system/files/non-official-document/unda1617ld02_electricity_SA_en.pdf Date of access: 5

August 2023

Mpinganjira, M. 2012. *International trade promotion in Southern Africa: challenges and lessons.* <https://www.intechopen.com/chapters/38489> Date of access: 12

August 2023

MRF (Market Research Future). 2021. *Hydraulic equipment market research report.*

<https://www.marketresearchfuture.com/reports/hydraulic-equipment-market-8066> Date of access: 25 March 2022.

MT (Mining Technology). 2023. *Copper production in Zambia and major projects.*

<https://www.mining-technology.com/data-insights/copper-in-zambia/?cf-view>

Date of access: 20 July 2023.

Nasrudin, A. 2022, 8 April. *Market Growth: Meaning, Importance, Influencing Factors*

[Blog Post] <https://penpoin.com/market-growth/> Date of access: 10 October

2022.

- Ngom, M. 2023, 23 February. *AfCFTA: Reaping the benefits of the world's most youth and women-friendly trade agreement* [Blog post]
<https://www.un.org/africarenewal/magazine/february-2023/afcfta-reaping-benefits-world%E2%80%99s-most-youth-and-women-friendly-trade-agreement#:~:text=The%20World%20Bank%20estimates%20that,more%20than%2081%20per%20cent>. Date of access: 10 September 2023.
- Nkomo, M., Mthombeni, J. & Lehong, T. 2020. *The African Continental free trade area: a significant role for IP*.
https://www.wipo.int/wipo_magazine/en/2020/04/article_0005.html Date of access: 27 July 2023.
- SACO (South African Cultural Observatory). 2022. *The development of a South African cultural export strategy*.
<https://www.southafricanculturalobservatory.org.za/download/comments/705/4a47d2983c8bd392b120b627e0e1cab4/The+Development+of+a+South+Africa+n+Cultural+Export+Strategy> Date of access: 12 August 2023.
- OECD (Global Forum on International Investment). 2002. *Environmental impacts of foreign direct investment in the mining sector in sub-Saharan Africa*.
<https://www.oecd.org/env/1819582.pdf> Date of Access: 28 June. 2023
- OECD Governments 2011. *Government at a glance*. Paris: OECD.
https://doi.org/10.1787/gov_glance-2011-en
- Olawumi, D. & Awolusi, P.D. 2018. *Mining sector and economic growth in Southern Africa*. Durban: Graduate School of Business and Leadership.
- Prince, M. & Lindokuhle, Z. 2021. Foreign direct investment and economic growth in South Africa: Is there a mutually beneficial relationship? *Sabinet African Journals*. <https://journals.co.za/doi/abs/10.31920/1750-4562/2021/v16n4a5>
Date of access: 16 September 2023
- PWC (Price Waterhouse Coopers). 2023a. Mine: The era of reinvention. *Miners capitalise on energy transition commodities, despite challenging road to net*

- zero: PWC's 20th Annual Mine Report. <https://www.pwc.co.za/en/press-room/2023-mine-the-era-of-reinvention.html> Date of access: 3 July 2023.
- PWC (Price Waterhouse Coopers). 2023b. *Strengthening Africa's gateways to trade*. <https://www.pwc.co.za/en/assets/pdf/strengthening-africas-gateways-to-trade.pdf> Date of access: 17 September 2023.
- PWC (Price Waterhouse Coopers). 2023c. *Strengthening Africa's gateways to trade*. <https://www.pwc.co.za/en/assets/pdf/strengthening-africas-gateways-to-trade.pdf> Date of access: 3 July 2023.
- Remington Hall. 2020. *Why forecasting is important for business success*. <https://www.baass.com/blog/why-forecasting-is-important-for-business-success> Date of access: 29 March 2022.
- Research Onion Model for Futures Studies. 2002. *Journal of Future Studies*, 23(2): 29-44. doi:10.6531/JFS.201812_23(2).0003
- Sachdev, R. 2018. How to write the background of your study. *Editage Insights*. <https://doi.org/10.34193/EI-A-10386>
- SADC (Southern Africa Development Countries). 2018. Southern Africa a new growth opportunity. <https://www.treasury.gov.za/publications/other/fiscu/1997.pdf>
<https://www.sadc.int/pillars/non-tariff-barriers> Date of Access: 7 July 2023
- SADC (Southern Africa Development Countries). 2023a. *Member States*. <https://www.sadc.int/member-states#:~:text=The%20mission%20of%20SADC%20is,and%20effective%20player%20in%20international> Date of Access: 7 July 2023
- SADC (Southern Africa Development Countries). 2023b. Non-Tariff Barriers. <https://www.sadc.int/pillars/non-tariff-barriers> Date of Access: 7 July 2023
- SADC (Southern Africa Development Countries). 2023c. *Policy and legal framework*. https://www.sadc.int/sites/default/files/2022-08/SADC_Tourism_Programme.pdf Date of Access: 7 July 2023

- Saunders, M., Lewis, P. & Thornhill, A. 2009. *Research methods for business students*. 6th ed. Cape Town: Pearson Education.
- Saunders, M., Lewis, P. & Thornhill, A. 2016. *Research methods for business students*. 8th ed. Cape Town: Pearson Education.
- Schwab, K. 2016, 14 January. *The Fourth Industrial Revolution: what it means, how to respond*. [Blog post] <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/> Date of access: 8 October 2022
- Segal, T. 2021. *What are exports? Definition, benefits, and examples*. <https://www.investopedia.com/terms/e/export.asp> Date of access: 8 Oct. 2022
- Sergeant, J. 2012. Qualitative Research Part II. *Participants, Analysis, and Quality Assurance*, 4(1):1-3. doi: 10.4300/JGME-D-11-00307.1
- Shaw A., Sharma, M.R. & Smith, J. 2018. *Strengthening Africa's gateways to trade*. www.pwc.co.za/african-ports Date of access: 25 March 2022.
- Signé, L. & Johnson, C. 2018. Africa's consumer market potential Trends, drivers, opportunities, and strategies. *Brookings*, 1(1):1-2.
- Swagelok Africa. 2022. *Southern Africa 2022 Map*. [Map] <https://www.swagelok.com/en/lp-en/africa/southern-africa> Date of access: 17 March 2022
- TAIKZN (Trade and Investment KwaZulu-Natal). 2016. *International trade*. https://www.tikzn.co.za/open.php?cat=export&page=exporting_your_products Date of access: 9 August 2023.
- TC (The Conversation, Academic rigour, journalistic flair). 2023. *Climate change action could set off a copper mining boom: how Zambia can make the most of it*. <https://theconversation.com/climate-change-action-could-set-off-a-copper-mining-boom-how-zambia-can-make-the-most-of-it-195764#:~:text=Zambia%20is%20particularly%20well%20positioned,fossil%20fuels%20to%20renewable%20energy>. Date of access: 14 September 2023.

- Technavio. 2022. Hydraulic equipment market size to grow by USD 15.50 billion | APAC to notice maximum growth. Technavio. *Cision PR Newswire*.
<https://www.prnewswire.com/news-releases/hydraulic-equipment-market-size-to-grow-by-usd-15-50-billion--apac-to-notice-maximum-growth--technavio-301557794.html> Date of access: 4 August 2022.
- Thomas, D. 2022, 18 May. *What you need to know about the African Continental Free Trade Area* [Blog Post]. <https://african.business/2022/05/trade-investment/what-you-need-to-know-about-the-african-continental-free-trade-area#:~:text=What%20is%20the%20AfCFTA%3F,the%20economic%20integration%20of%20Africa>. Date of access: 25 July 2023.
- Torreggiani, S. & Andreoni, A. 2021. Rising to the challenge or perish? Chinese import penetration and its impact on growth dynamics of manufacturing firms in South Africa. *Science Direct*, 64(2):199-212
<https://doi.org/10.1016/j.strueco.2022.12.010>
- TWB (The World Bank). 2013. *Export competitiveness regional trade integration could spur South African export growth*.
<https://www.worldbank.org/en/country/southafrica/publication/south-africa-economic-update-focus-export-competitiveness> Date of access: 5 October 2022.
- TWB (The World Bank). 2020. *The African Continental Free Trade Area*.
<https://www.worldbank.org/en/topic/trade/publication/the-african-continental-free-trade-area> Date of access: 26 July 2023
- TWB (The World Bank). 2023. *The World Bank in Africa*.
<https://www.worldbank.org/en/region/afr/overview> Date of access: 22 July 2023
- UNCTAD. 2022, 9 June. *Investment flows to Africa reached a record \$83 billion in 2021* [Blog Post]. <https://unctad.org/news/investment-flows-africa-reached-record-83-billion-2021> Date of access: 4 August 2023.

Van Wyk, A., Hlapi, A. & Oladipo, D. 2023. *Analysing factors that influence economic growth in South Africa*. Potchefstroom: School of Economic Sciences, North-West University.

Winkler, H. & Kuteyi, D. 2022. *Logistics Challenges in Sub-Saharan Africa and opportunities for digitalization*. <https://doi.org/10.3390/su14042399> Date of access: 10 August 2023

WRG (World Regional Geography). 2012. *Southern Africa*. <https://open.lib.umn.edu/worldgeography/chapter/7-6-southern-africa/> Date of access: 9 October 2022

Yike Fu. 2021. The quiet China-Africa revolution: Chinese investment. *The Diplomat*. <https://thediplomat.com/2021/11/the-quiet-china-africa-revolution-chinese-investment/> Date of access: 3 April 2022

APPENDIX A: ETHICS LETTER



Private Bag X1290, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Fax: 018 299-4910
Web: <http://www.nwu.ac.za>

Senate Committee for Research Ethics
Tel: 018 299-484
Fezwe.Mseleni@nwu.ac.za

31 March 2023

ETHICS APPROVAL LETTER OF STUDY

Based on approval by the Economic and Management Sciences Research Ethics Committee (EMS-REC) on 31/03/2023, the Economic and Management Sciences Research Ethics Committee hereby approves your study as indicated below. This implies that the North-West University Senate Committee for Research Ethics (NWU-REC) grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Study title: Assessing the exports of hydraulic equipment in the mining and industrial sector of the Southern African market

Study Leader/Supervisor (Principal Investigator)/Researcher: Prof Nelda Mouton- Operations Management

Student: Du Toit JF (24151378)

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Institution Study Number Year Status
Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation

Application Type:

Commencement date: 1/4/2023

Expiry date: 1/5/2024

Risk:

Approval of the study is initially provided for a year, after which continuation of the study is dependent on receipt and review of the annual (or as otherwise stipulated) monitoring report and the concomitant issuing of a letter of continuation.

Special in process conditions of the research for approval (if applicable):

•

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, the following general terms and conditions will apply:

- The study leader/supervisor (principle investigator)/researcher must report in the prescribed format to the EMS-REC:
 - annually (or as otherwise requested) on the monitoring of the study, whereby a letter of continuation will be provided, and upon completion of the study; and
 - without any delay in case of any adverse event or incident (or any matter that interrupts sound ethical principles) during the course of the study.
- The approval applies strictly to the proposal as stipulated in the application form. Should any amendments to the proposal be deemed necessary during the course of the study, the study leader/researcher must apply for approval of these amendments at the EMS-REC, prior to

implementation. Should there be any deviations from the study proposal without the necessary approval of such amendments, the ethics approval is immediately and automatically forfeited.

- Annually a number of studies may be randomly selected for an external audit.
 - The date of approval indicates the first date that the study may be started.
- In the interest of ethical responsibility, the NWU-SCRE and EMS-REC reserves the right to:*
- request access to any information or data at any time during the course or after completion of the study;
 - to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process;
 - withdraw or postpone approval if:
 - any unethical principles or practices of the study are revealed or suspected;
 - it becomes apparent that any relevant information was withheld from the EMS-REC or that information has been false or misrepresented;
 - submission of the annual (or otherwise stipulated) monitoring report, the required amendments, or reporting of adverse events or incidents was not done in a timely manner and accurately; and / or
 - new institutional rules, national legislation or international conventions deem it necessary.

The EMS-REC would like to remain at your service as scientist and researcher, and wishes you well with your study. Please do not hesitate to contact the EMS-REC or the NWU-SCRE for any further enquiries or requests for assistance.

Yours sincerely,

Mark
Rathbone

Digitally signed by Mark Rathbone
DN: cn=Mark Rathbone, o=North-
West University, ou=Business
management,
email=mark.rathbone@nwu.ac.za,
c=ZA
Date: 2023.04.25 16:03:23 +02'00'

Prof Mark Rathbone
Chairperson: NWU Economic and Management Sciences Research Ethics Committee

APPENDIX B: LANGUAGE EDITOR'S LETTER



Dynamic Language &
Translation Specialists

Antoinette Bisschoff
71 Esselen Street,
Potchefstroom
Tel: 018 293 3046
Cell: 082 878 5183
Language@dlts.co.za
CC No: 1995/017794/23

Saturday, 14 October 2023

To whom it may concern

Re: Confirmation of language edit, typography and technical precision

The MBA mini-dissertation "**Assessing the exports of hydraulic equipment in the mining and industrial sector of the Southern African market**" by **JF du Toit (24151378)** was edited for language and technical precision. Referencing and sources were checked to comply with the Harvard guidelines specified by the 2020 NWU Reference Guide.

Final, last-minute corrections remain the responsibility of the author.

Antoinette Bisschoff

BA Languages (UPE – now NMU); MBA (PU for CHE – now NWU); Translation and Linguistic Studies (NWU)

Officially approved language editor of the NWU since 1998
Member of SA Translators Institute (no. 100181)

Precision ... to the last letter

APPENDIX C: PERMISSION LETTER

Palfinger Southern Africa (Pty) Ltd

Reg. No. 1990/003385/07
284B Dekema Road, Wadeville, 1422
P.O. Box 7092, Albemarle, 1410
Tel: (011) 608-3670/1/2/3/4
Email: info@palfinger.co.za
www.palfinger.co.za



17th February 2023

To: Participant

Re.: Jacques Francois du Toit

This letter is a declaration that Palfinger Southern Africa has given their consent on the subject and topic Jacques Francois du Toit has chosen to do his mini-dissertation.

Topic:

Assessing the exports of hydraulic equipment in the mining and industrial sector of the Southern African market.

Yours Faithfully,

A handwritten signature in black ink, appearing to be "Tony Mota", written in a cursive style.

Tony Mota
Operations Director.

Directors: J. Bothma (Managing) A. Mota

APPENDIX D: INTERVIEW QUESTIONS



NWU Business School
North-West University
Private Bag x6001
Potchefstroom, 2520
<http://commerce.nwu.ac.za/business-school>

15 October 2023

INTERVIEW QUESTIONS

TOPIC: Assessing the exports of hydraulic equipment in the mining and industrial sector of the Southern African market.

INTERVIEW QUESTIONS

1. Thank you for participating in this study. Give me a background of who you are and your position in the organization?
2. How long (in years) have you been working in this position? And how long (in years) have you been active in the exporting of equipment in the Southern African market?
3. In your experience where (Geographically) is the Southern Africa Market growing?
4. What countries in Southern Africa have shown to be profitable for South African companies in your sector industry to export to?
5. What do you know and understand about African Continental Free Trade Area (AfCFTA)
6. Do you think that the Africa Continental free trade area will make a difference in the growth of your organization?
7. What is affecting the growth in the countries you are exporting to?
8. Is there a clear growth pattern that you can see in the last five years in your exports division?
9. What is your expectation for growth in the next 5 years (in your export division) and why do you think this growth is achievable?
10. Do you think foreign investments like China and the United Kingdom that are investing in Southern Africa will have a positive or a negative impact on South



African organizations that are exporting equipment into the Southern African Market? Please explain.
11. What is the greatest challenge for your organization to export into the Southern African Market from South Africa?
12. Can you identify one country in Southern Africa that South African organizations should look to for potential new business in the next five years and why would you say the market in this country will expand?
13. Are there any final other comments that you want to make that can contribute to this study?
14. Thank you for your time.