

**Mineral Beneficiation: A continuing African paradox or a panacea for
economic growth and skills development**

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DECLARATION

I, Trevor Tebogo Kola, hereby declare that this mini-dissertation titled “**Mineral Beneficiation: A continuing African paradox or a panacea for economic growth and skills development**” is my own work and that no help was provided from other sources as those allowed.

The analysis and interpretations presented are based on my reading and understanding of the original texts. They were mainly used and adapted to support my thesis. The other books, articles and websites, which I have made use of are acknowledged at the respective place in the text.

For this mini-dissertation, no degree or diploma has been conferred on me before, either in this or in any other university.

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Date.....

ABSTRACT

Africa is rich with plentiful mineral resources, yet it is a continent associated with underdevelopment, low economic growth and unskilled labour. Arguments abound that if developing countries added more value to their commodities locally, rather than exporting them to other countries in a raw and unprocessed format, their key economic indicators, such as employment and economic growth, would be enhanced. This study explored debates by scholars and policymakers, who either support or are against the position that mineral beneficiation is a panacea to Africa's economic challenges. The study explored arguments by scholars and policymakers as to why African countries fail to pursue mineral beneficiation which has subsequently relegated their economies to the bottom end of economic development. The research explored how International Relations (IR) scholars in the past tried to define development. These debates on development were explored using the theoretical frameworks of modernisation and dependency. The study found that these debates, have highlighted the important role which mineral resources play in international relations. Diplomacy and foreign policy were found to be key aspects in the debates on mineral beneficiation in the continent.

The study employed a qualitative research approach to explore arguments by scholars and policymakers on whether the continent should beneficiate its mineral resources. Data was collected, analysed and categorised. The findings of the research were discussed based on the themes which emerged from the literature reviewed.

The study focused on whether by beneficiating minerals locally, the continent could realise sustainable economic growth for its citizens. The study explored whether debates by scholars, mining industry and government policymakers could dispel or support the argument that mineral beneficiation is a panacea for sustainable economic growth and skills development in the continent. The study found that debates on whether African governments should beneficiate their abundant mineral resources will continue to evolve and develop.

Key words: mineral resources; underdevelopment; economic growth; mineral beneficiation; comparative advantage; skills development; employment creation, diplomacy, resource diplomacy, upstream and downstream linkages.

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LIST OF ABBREVIATIONS

African Mining Vision (AMV)

African Union (AU)

Australian Mining, Equipment, Technology and Services (METS)

Brazil-Russia-India-China-South Africa (BRICS)

Coordination Committee on Economic Cooperation with African countries (AFROCOM)

Country Mining Vision (CMV)

Democratic Republic of Congo (DRC)

East African Community (EAC)

Economic Commission for Africa (ECA)

Economic Commission for the West African States (ECOWAS)

European Union (EU)

Forum on China Africa Cooperation (FOCAC)

Gross Domestic Product (GDP)

International Monetary Fund (IMF)

International Relations (IR)

Lagos Plan of Action (LPA)

Local Content Policies (LPCs)

Manor River Union (MRU)

National Development Plan (NDP)

Natural Resources Governance Programme (NRG)

New Partnership for Africa's Development (NEPAD)

Regional Economic Communities (REC's)

Research and Development (R&D)

South African Parliamentary Monitoring Group (PMG)

Southern African Development Community (SADC)

Structural Adjustment Programmes (SAP)

Sub-Saharan African (SSA)

Tokyo International Conference on African Development (TICAD)

United Kingdom (UK)

United States of America (US)

West African Economic Monetary Union (WAEMU)

World Bank (WB)

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CHAPTER 1: INTRODUCTION

1.1 Background to the study

Africa is a continent rich with many mineral resources. However, it is also a continent grappling with underdevelopment, low economic growth and unskilled labour. The continent possesses a significant proportion of global mineral reserves: 30% of bauxite, 60% of manganese, 75% of phosphates, 85% of platinum, 80% of chrome, 60% of cobalt, 30% of titanium, 75% of diamonds and nearly 40% of gold. Sub-Saharan Africa produces 7% of global oil production and known reserves are of a similar magnitude (Interministerial Committee for International Cooperation and Development, 2008, p. 32). Yet the continent remains the world's poorest, with 47% of the population living on less than \$1.25 per day. No wonder there is a constant refrain in Africa: "If we are so rich, why are we so poor (Lawson-Remer & Greenstein, 2012, p. 21). This potentially shows that domestic economies, have been and still remain at the mercy of the international political economy, due to their heavy reliance on agriculture and services sectors which are not fully diversified. This situates these economies at a vulnerable state related to external and severe competition related to a high impact on the population at large. Amoako-Tuffour (2015) highlights that local content policies (LPCs) to beneficiaries, are policy interventions aimed at strengthening the productive structure of a particular economy, and have become a very popular policy instrument to support upstream linkage development (Amoako-Tuffour, et al., 2015). This requires that a specified final product, be composed of a certain proportion of domestic components or value add.

Consequently, this has led to arguments by scholars and policymakers that if developing countries add more value to their commodities locally, rather than exporting them to other countries in a raw and unprocessed format, their key economic indicators such as employment and economic growth would be enhanced. Mineral beneficiation at present takes place largely in countries that have no mineral endowment (Baxter, 2005, p. 25). Mineral beneficiation is defined as the process in which mineral products are transformed through different processes and by adding other inputs (Baissac, et al., 2015, p. 10). Thus, mineral beneficiation, refers to the extraction of mineral resources in Third World or developing countries and beneficiating them elsewhere, mainly in developed countries which do not produce such metals. The issue regarding mineral beneficiation has been addressed in various

platforms from journals, online articles, and international conferences, where initiatives have been suggested as to how to accelerate the beneficiation process in the continent.

These debates can be traced back to the 1950's and 1960s (Huntington, 1971, p. 285) and categorised as a monolog. The latter refers to scholars of modernisation theory, (mostly from developed countries) who either prescribed formulas on how Africa should develop its economy. The theory assumed that since Western countries had been able to progress from the primary stages of underdevelopment, then underdeveloped countries would tend to follow the developed nation's culture (Rostow, 1954; cited from Reyes, 2001:3). These solo debates demonstrated the dominant relationship which developed countries enjoyed over Africa. According to McGowan (1976, pp. 25-26) this relationship, can be called a 'dependent', satellite-type relationship. This is because countries which are not developed do not have enough resources to exert their independence in their global political economic relations. The subordinate role of African countries, which is a result of being dependent in the world capitalist system, affects their independence with respect to the pace and the direction of growth, of their national economies. In the world capitalist system, private individuals and corporations own the means of production, which include the land, factories, machinery and the natural resources required to manufacture and produce goods. However, issues pertaining to how and what to produce, and for which market to produce for, have become a terrain of the international structures and processes. These structures and processes can be identified as the World Bank (WB), International Monetary Fund (IMF) and Structural Adjustment Programmes (SAP).

According to a joint report of the Economic Commission for Africa (ECA) and African Union (AU) (2011, p. 15) around the 1980s most African countries were highly indebted to international institutions. This led to the World Bank becoming the main architect in formulating policies to govern the mining industry in the continent. For example, under SAP, donors have tended to tie requests to aid in three ways. First, it is to the whole procurement. Countries that receive aid originating from donor countries were expected to procure selected goods from their preferred service provider. Second, the donor had the right to decide which project in the continent could receive their financial support. Third, aid is only permitted if the recipient country

agrees to a set of economic and political policies (Moyo, 2009, pp. 38-39). In addition, the SAPs instituted conditional lending, requiring that the governments receiving debt relief were obliged to adjust their economic policy by liberalising and privatising.

In the scholarly debates, empirical evidence shows that Africa continues to be poor, underdeveloped, and unskilled - yet it has abundant mineral resources. It is this paradox that has led to the resurgence of debates on mineral beneficiation. At the same time critical development theory emerged, which brings new commentators and policymakers from the African continent. In this respect, African scholars and policymakers, considered the control of politics and the economy to be critical to their relations with the rest of the world. Their argument was that this can be achieved through the employment of diplomacy as a tool for negotiations. Applying diplomacy as a negotiating tool in mineral beneficiation, reflected an attempt by African scholars to re-define the continent's role in international relations. Mineral beneficiation highlighted the importance of diplomacy in African development (Hill, 1975). Diplomacy was seen as important for establishing intra-African and global dialogues, so as to leverage the extractive sector (Bello, 2015). Managing dialogues on mineral beneficiation, required that African policymakers develop their own epistemologies and narratives on the development of the continent. Having their own epistemologies on development would enhance foreign policy considerations regarding the extractive sector and ultimately the beneficiation of minerals in the continent (Ndlovu-Gatsheni, 2017).

1.2 Problem statement

According to the Centre for International Development at Harvard University, beneficiation is not a panacea to Africa's economic challenges. It is considered a bad policy paradigm, and the Centre states that it should be dropped as a development strategy (Hausmann, et al., 2008, pp. 7-8). Conversely, the African Mining Vision (AMV) emphasises that extractive sectors can be an important driver of structural transformation on the continent to eradicate poverty and to achieve rapid and broad-based socio-economic development (African Union, 2009, p. 6). The African continent has abundant mineral resources, yet the commodities are extracted by multinational corporations and transferred to foreign subsidiaries to be beneficiated. Given these debates on whether the continent should beneficiate its mineral resources, this study

explores which of these two arguments on mineral beneficiation in the continent has stood the test of theory debate.

1.3 Research question, aim and objectives

Based on the literature reviewed in this study, the central question is formulated as follows:

Do scholarly debates on mineral beneficiation in Africa, dispel or support existing arguments as to whether mineral beneficiation can be a panacea for sustainable economic and skills development in the African continent?

The aim of the study is to:

Analyse debates by scholars and policymakers in order to understand their arguments either in support of or against mineral beneficiation in the continent.

The following research objectives facilitated the aim:

1. To explore scholarly arguments as to why there are paradigm shifts by African governments away from commodity export dependency to local mineral beneficiation.
2. To assess scholarly arguments as to whether mineral beneficiation can facilitate Africa's economic diversification and productive capacity
3. To evaluate scholarly arguments as to whether beneficiation of resource-based comparative advantage can be transformed into a national competitive advantage
4. To determine if the success of the advanced industrial economies could serve as a model for developing economies
5. To analyse how the debate on mineral beneficiation may re-define Africa's role in international relations

1.4 Research Approach

This study is informed by the theoretical frameworks of Modernisation and Dependency. The theories are applied in the research study so as to provide an understanding of the basis of the debates on mineral beneficiation. Modernisation and Dependency theories were found to be on the opposite spectrum of the debates. This

compelled the study to demonstrate their differences in application and interpretation. According to Valenzuela and Valenzuela (1978) modernisation and dependency are two sharply different perspectives seeking to explain the same reality. They originated in different areas, with different evaluative judgments, different assumptions, different methodologies, and different explanation (Valenzuela & Valenzuela, 1978, p. 536). Both theories were found to be relevant for the study because they highlighted issues surrounding African development from the perspective of developed and developing countries. The use of modernisation and dependency theories, assisted the study in assessing why scholars and policymakers either, support arguments or are against mineral beneficiation in the continent.

1.4.1 Modernisation theory

Modernisation theory is associated with debates amongst scholars and industry policymakers who are advancing the argument against the process of mineral beneficiation in the African continent. The theory explains modernisation as a historical process through which underdeveloped nations catch up with the world's advanced countries, economically and technologically (Peng, 2009, p. 38); (Lerner, 1958, pp. 70-71); (Eisenstadt, 1966, p. 1).

Valenzuela and Valenzuela (1978) state that in order to enter the modern world, underdeveloped societies have to overcome traditional norms and structures, thus opening the way for social, economic, and political transformations (Valenzuela & Valenzuela, 1978, p. 538). Huntington (1971) provides a social interpretation, and he asserts that the contrast between modern man and traditional man is the source of contrast between modern society and traditional society. Traditional man is passive and accepting; he expects continuity in nature and society, and he does not believe in the capacity of man to change or to control either. Modern man, in contrast, believes in both the possibility and the desirability of change, and has confidence in the ability of man to control change so as to accomplish his purposes (Huntington, 1971, p. 278).

Modernisation theory elaborates a linear-stages-of-growth model that defines development as a sequence of stages through which all societies must pass. This conceptualisation of the nature and process of development has become the basic blueprint for modernisation theory. Bernstein (1971) asserts that the principal assumption of modernisation theory is that it is a total social process associated with

(or subsuming) economic development and that it constitutes a universal pattern (Bernstein, 1971, p. 141). Thus, the theory highlights a developmental framework that African countries have to subscribe to in order to become modern.

1.4.2 Dependency theory

Dependency Theory developed in the late 1950s under the guidance of the Director of the United Nations Economic Commission for Latin America, Raul Prebisch. Prebisch and his colleagues were troubled by the fact that economic growth in the advanced industrialised countries did not necessarily lead to growth in the poorer countries (Ferraro, 2008, p. 58). The theory is introduced to counter the tenets of Modernisation theory which claims that once developing societies connect with western European and North American societies, they would be pushed toward modernisation and would ultimately realise the economic, political, and social features associated with the nations of Western Europe and the United States. Peng (2009) thus asserts that modernisation attempted to popularise American ideology. He also says that the root cause of economic backwardness and underdevelopment in Third World countries was not their pre-modernisation or pre-capitalistic structures, but rather their dependent positions in the economic system of the capitalistic world (Peng, 2009, p. 42). Modernisation theory is further criticised for assuming that development is unidirectional, as reflected in Rostow's perspective (Reyes, 2001) which advances one possible model of development which favours the development pattern of United States.

Dependency theory is further employed in this study to reflect on the views of proponents of mineral beneficiation in Africa. The theory asserts that former colonies and non-industrialised nations are structurally different from industrialised countries; and that they therefore need a different recipe for modernisation. Dependency theory connects with the broader intellectual currents during the era of decolonisation. Here the people of the Global South, now assert the right to own the interpretation of history, reality, and a vision for the future. The theory argues that colonisation restructured former colonial economies, so that they specialised in producing raw materials, cash crops, and foodstuff for export at low prices to the colonisers' home countries (Matunhu, 2011, p. 65). These structures created a system that continues to impoverish former colonies and thwarts modernisation. Dependency theory has

relevance in explaining the persistence of poverty and underdevelopment in the African continent.

1.5 Research Methodology

1.5.1 Introduction

The researcher conducted a study examining arguments by scholars and policy makers from developed and developing countries, who were debating as to whether African countries should benefit from their mineral resources. The researcher formulated a research topic titled: *Mineral Beneficiation: A continuing African paradox or a panacea to economic and skills development*, which was used as a guiding focus when undertaking the study. The main question of the study was formulated as follows: *Do scholarly debates on mineral beneficiation in Africa, dispel or support existing arguments as to whether mineral beneficiation can be a panacea for sustainable economic and skills development in the African continent?* To answer the question, the study conducted a documentary review focusing on texts containing the scholarly debates on mineral beneficiation by authors, government policymakers, Think-tanks from regional organisations and mining industry policymakers. The research employed the theories of modernisation and dependency as theoretical frameworks through which African development can be understood. The study employed a qualitative approach to conduct the research. As a data collection method, the study employed a thematic analysis, to give voice and meaning to the phenomenon of study, that is, mineral beneficiation. The section below, addresses the research methodology of the study. It focuses on the qualitative document review; setting inclusion criteria for documents; document analysis; and ethical consideration.

1.5.2 Qualitative document review

The study employed a qualitative research approach to explore the arguments of scholars and policymakers who are debating as to whether Africa should be the locus in which to engage in mineral beneficiation. To achieve this objective, the researcher employed documents as a data collection method. Bowen (2009) explains a document review as a systematic procedure for reviewing or evaluating documents both printed and electronic material. Such documents contain text and images that have been recorded without a researcher's intervention (Bowen, 2009, p. 28). Qualitative data according to Saunders (2009) refers to all non-numeric data or data that have not been

quantified and can be a product of all research strategies. In respect of this study it includes policy documents (Saunders, et al., 2009, p. 480). The researcher set out to analyse the various themes emanating from the debates so as to ascertain the positions for or against beneficiating minerals in Africa. The qualitative approach was utilised to explore how scholarly debates influenced perceptions and policy options as to whether Africa should be the place where mineral beneficiation takes place.

1.5.3 Setting the inclusion criteria for documents

In determining what written materials to use for the study, the researcher followed the principles of judgemental or purposeful sampling. Kumar explains judgemental or purposeful sampling as the judgement by the researcher as to which materials can provide the best information to achieve the objectives of the study (Kumar, 2011, p. 189).

The researcher selected documents which satisfied a specific purpose for the research. This purpose was related to the researcher's interest in the texts which speak to mineral beneficiation, modernisation and dependency literature. The researcher selected material on mineral beneficiation if it reflected some of the arguments as to whether African governments should embark on beneficiation programmes. Literature on modernisation theory was selected because it highlighted how Western countries perceive how Africa should develop. Literature on dependency theory was selected because it contained arguments expressing dissatisfaction with modernisation theory. The criteria used to select the relevant documents was informed by the aim and objectives of the study. The researcher subdivided the material into categories related to mineral beneficiation and which addressed subjects such as, the scholarly and policy making debates with respect to mineral beneficiation; policy debates on mineral beneficiation; the resource curse; a shift from dependency to local mineral beneficiation; comparative advantage and the role of mineral beneficiation in international relations. The materials were used by the researcher to present the views of scholars and policy makers who are either in favour of or against mineral beneficiation in Africa. To demonstrate that the debate on mineral beneficiation is a long-standing and recurring one, the researcher selected materials covering a broad chronological range.

The researcher further selected material which addressed modernisation and dependency theories. These two theories were compared in terms of how development is understood and to examine how their explanations might frame a bias towards beneficiation or not. Such documents were included if the researcher was able to ascertain that they could provide information on the frameworks, and particularly those written by the originators of the theories. To demonstrate the historical origins of the literature, the researcher selected material on the theoretical frameworks based on their publication dates first ranging from the 1950's, 1960's through 1980's. To further highlight the evolving nature of the frameworks, particularly dependency theory, the researcher included materials with publication dates from the year 2000 to current. The types of documents used were mostly written for various platforms such as conferences, internet-based forums, journals and research publications. The researcher also considered the intended audience for the documents which were identified as researchers, scholars, interest-based organisations, government institutions and policy makers, both from government and private institutions.

1.5.4 Analysing documents

In conducting the document analysis, the researcher organised documents into themes which were relevant to the study. The themes were categorised so as to demonstrate past and current debates by various scholars and policymakers arguing for or against mineral beneficiation in Africa. Each category was formulated to provide answers to the study's enquiry articulated through the objectives.

The researcher reviewed documents to establish the opinions of researchers, think-tanks, scholars and policymakers on the stagnant nature of African development. Their subsequent arguments were then presented as debates. The arguments were divided into two camps of the debate to ascertain their influence on the African development. The documents revealed that the earliest arguments on mineral beneficiation were led by scholars and policy makers from developed countries. It is because of this that the formulation of policies on African development have come from the experiences and influences of developed nations.

The researcher found that those arguing against mineral beneficiation in Africa advocate for the status quo of underdevelopment to remain. While those who argued

in favour of mineral beneficiation wanted to change the status quo especially in respect of how the narrative on African development is shaped. The study demonstrated this by introducing two theoretical frameworks, namely, modernisation and dependency theories. The frameworks were employed as a lens through which African development could be understood. Modernisation was presented as a theoretical lens employed mainly by scholars and policy makers who argue against mineral beneficiation in Africa. Dependency theory was more consistent with those in favour of beneficiating minerals locally. The study established that these two frameworks, were relevant for explaining African development. However, they were written (for and by scholars) based in developed countries in the case of modernisation and Latin America in the case of dependency. In this respect the researcher established that the continuing debate on mineral beneficiation in Africa requires an alternative lens from which to analyse development in the continent. The study demonstrated this by employing diplomacy in debates on mineral beneficiation so as to attempt to re-define Africa's role in international relations.

1.5.5 Ethical considerations

In the planning and execution of this study, the researcher considered the ethics and consequences of the research. All of the sources used in this study are in the public domain and easily accessible. The sources used were correctly referenced and accredited to avoid plagiarism. The researcher complied with the professional standards required for this study by ensuring that the research demonstrated integrity, quality and accountability.

1.6 Structure of the research

The study is structured as follows:

Chapter 1 of this study introduced the theme of the research by providing a background on mineral beneficiation in the continent. The chapter presented the objectives of the study which guide the research. The qualitative approach was presented as the preferred one for the study.

Chapter 2 highlights the theoretical framework of the study which is modernisation and dependency theories. Both theoretical frameworks are employed as lenses from which African development can be understood. Modernisation theory is applied to

reflect the views held by scholars and policymakers against mineral beneficiation in the continent. Their views are highlighted as supporting the status quo where Africa is expected to follow development stages as experienced by developed countries. Dependency theory is employed to critique the tenets of modernisation theory and to also support the arguments by scholars and policymakers in favour of mineral beneficiation in the continent.

Chapter 3 presents a literature review which outlines debates by authors, scholars, think-tanks, and policymakers both from government and private institutions. The literature review provides the context for the debates regarding where and why Africa should benefit from its abundant mineral resources. The opposing views of scholars and policymakers are then employed to assess the extent to which the central question of the study could be confirmed or refuted. The chapter also addresses aspects of International Relations as they pertain to mineral beneficiation. The focus is also on diplomacy and foreign policy as catalysts for negotiations by African governments to discuss mineral beneficiation in the continent.

Chapter 4 presents the findings, analysis and conclusion of the study. The findings of the study are presented as they emerged from the literature reviewed. The analysis of the study focuses on assessing the suitability of modernisation and dependency theories as theoretical lenses from which African development can be understood. The analysis presents both theories as relevant to explaining African development. However, the research highlights the need for an alternative framework from which issues of African development can be presented. Lastly, a conclusion is presented providing a summary of the study.

CHAPTER 2: THEORETICAL FRAMEWORKS OF THE STUDY: MODERNISATION AND DEPENDENCY THEORIES

2.1 Introduction

This chapter presents debates on how International Relations (IR) scholars have in the past attempted to define development. These past debates have been predominantly informed by the theoretical frameworks of modernisation and dependency. This chapter shows that the debates have taken place against the backdrop of development on the African continent. For this, the focus is on the debates by theorists who lean either towards the assumptions of modernisation or dependency theories of the 1950s and 1960s. The debates indicate how their inclinations towards either modernisation or dependency theory influences their perspectives on how Third World countries should develop. Debates around mineral beneficiation reflect the changes in the way in which the discourse surrounding the continent's development trajectory has been presented. This concept of change is also alluded to by Samuel P. Huntington who states that change is so pervasive that it is virtually synonymous with politics and that it cannot be studied as a separate subject. He asserts that politics is equated to change, and its main characteristics relate to ideas; standards; establishments; groups; authority; structures; conflict; communication; influence; interaction; law and organisation (Huntington, 1971, p. 306). This concept of change connects with the aspirations of African leaders and authors who advocate for a change in the continent's perspective of development and that the debate and their positions are informed by the dependency theory.

In an effort to address the debates by scholars and policymakers from the two opposing camps regarding Africa as the location in which mineral beneficiation should take place, this chapter will focus on the theoretical approach of the study based on the theories of Modernisation and Dependency. The chapter will first articulate the arguments by scholars of modernisation theory as it applies to mineral beneficiation in Africa. Modernisation theory is used as a lens to reflect on the nature of arguments presented by scholars and policymakers with respect to mineral beneficiation in the continent. This chapter will highlight how the theoretical framework of modernisation is employed by such scholars and policymakers to maintain the status quo, whereby Africa is expected to follow the developmental stages as articulated by Rostow, Lerner, and others. Subsequently, dependency theory will be employed as a critique of

modernisation theory, to show how other scholars and policymakers, argue in favour of mineral beneficiation in the continent.

Even though both theories developed additional strands in later years, the chapter will demonstrate their enduring nature as lenses for defining African development. This includes their status as the traditional lenses employed by scholars and policymakers to define Africa's development. The explanatory frameworks of both modernisation and dependency theory are employed in an attempt to make sense of the central focus of this study which is whether African governments should locally embark on beneficiating their abundant mineral resources so as to improve economic growth and skills development. To highlight the enduring nature of these theories, this chapter will introduce analyses by scholars such as Tariq Banuri (1987), Arturo Escobar (1995), Giovanni Reyes (2001), and Ndlovu-Gatsheni (2017) who have expanded on the assumptions of dependency theory by including other phenomena such as Africa's socio-economic, political, ideological and epistemological conditions. The study will in the analysis chapter, highlight such emerging theories, to suggest alternative lenses from which African development can be understood.

2.2 Modernisation Theory defined

Daniel Lerner (1958) is credited with having coined the concept of modernisation in his thesis titled, *The Passing of Traditional Society*. He juxtaposed a modern entrepreneur (the grocer) in relation to a traditional chief to determine the level of development in order for a society to be classified as modern. His analogy posits that the chief represents what is traditional, and the grocer what is modern. The chief represents the thoughts of the villagers by being the primary respondent about questions on progress in the village. The grocer, due to the information which he possesses about things outside the village, represents a modern well of knowledge, which villagers need in order to understand the outside world. Rostow (1971) is another scholar who supported the assumptions of modernisation theory when he introduced a popular reference to the theory, which came to be known as the five stages of growth. The five stages of growth are the traditional society; the pre-conditions for take-off; take-off; the drive to maturity; and the age of mass consumption (Rostow, 1971, pp. 4-10). Rostow's belief was that for Third World countries to develop, they had to follow through these passages of development in order to realise

what developed countries had achieved. This is the same proposition which opponents of mineral beneficiation in the continent hold by prescribing the route Africa has to follow in leveraging its mineral resources. The project of modernisation theory is therefore to propose the modernisation of traditional societies into metropolises-similar to those in developed countries.

The theory of modernisation was based on explanations of Western nation's progression from their primary stages of underdevelopment, which the underdeveloped nations tend to follow (Rostow, 1954); cited from (Reyes, 2001, p. 3). According to Wilkins (2010) Lerner's transitional model provides a set of idealised types, as well as an anticipated path from 'traditional' to 'modern' society. This model suggested a certain approach to social change as well as a framework which defined the limitations associated with social change processes (Wilkins, 2010). Wilkin's proposition reflects that the world of modern and traditional societies resides in different development trajectories which impact on the transition process. He shows that having a traditional or underdeveloped status immediately poses challenges of having to deal with the new and unknown, which is associated with a change from traditional to modern. Valenzuela and Valenzuela (1978) trace modernisation to the period following World War II with the collapse of colonial powers, and the creation of many independent states. They note that the emerging states, attracted the interest of U.S. policymakers as well as scholars. The attention of policymakers was on the impact which Marxism could have on developing countries. They pursued knowledge about developing countries in order to satisfy their wish to influence government policy by designing a vast literature on developing nations (Valenzuela & Valenzuela, 1978, p. 535).

Eisenstadt (1965) provides an analysis of how modernisation evolved in Africa. He says that it was the result of research studies on social change where new integration problems emerged as new areas of focus. According to him, the development of these new centres were shaped in their ideological and institutional forms to represent modernity. This also speaks to the formation of the new modern order of contemporary societies which were to assume their appropriate place among other modern societies (Eisenstadt, 1965, pp. 454-455). B.C. Smith (2003) highlights that the early theorists assumed that in being modern one had to indicate progression and improvement. This was considered to be an important aspect of transitioning from pre-industrial to

industrial. Bernstein (1971) notes that there are three different levels in modernisation theory. The first relates to aspects of personality factors, institutions, cultural beliefs, or social processes, which are correctly attributed according to priority setting. The second denotes a substantive designation of what is really modern and relates to urbanisation or mass communication. The third focus is on family and religion as critical areas in social interaction (Bernstein, 1971).

Modernisation, according to Rustow, denotes an excessively expanding control over nature-focusing on relations amongst men. This suggests that man changes his attitude towards his environment, and everything associated with it. He asserts that it is a theme as applicable to Europe and America as it is to Asia and Africa. (Rustow, 1968, p. 38). Rustow's statement confirms that just like any other continent, Africa is destined to be affected by the process of modernisation and the experience of social and political change. B.C. Smith (2003) posits that the origins and intellectual roots of modernisation can be traced back to European evolutionists and French Philosophers. They all had the common objective of defining transformational issues relating to the movement from pre-industrial to industrial society. Their theorising was transmitted into debates regarding modernisation in the Third World (Smith, 2003, p. 44).

2.2.1 Modernisation theory and mineral beneficiation

Modernisation theory is associated with debates of scholars and industry policymakers or commentators who advance arguments against the process of mineral beneficiation in the African continent. Modernisation theory explains development as a process whereby underdeveloped nations attempt to accelerate their development to the status of developed nations, economically and technologically. (Peng, 2009, p. 38); (Lerner, 1966, pp. 70-71); (Eisenstadt, 1966, p. 1). Thus, modernisation prescribes the characteristics and stages which African nations have to follow in order to be classified as being modern. African modernisation according to Smith (2003) developed characteristics which delineate Africa in terms of ascribed or achieved status. In this instance, Africa's abundant mineral resources prescribe an ascribed status to the continent. That is, the continent is deemed to have not worked hard enough to possess abundant mineral resources. He highlights that a society is defined as traditional if its status is ascribed, and as modern if its status is achieved. That is, countries which became modern achieved this status because of hard work and merit. The ascribed status refers to the assigned involuntary underdevelopment of the continent. That is,

the underdeveloped state of the continent confers on it the ascribed status of being traditional or underdeveloped, and therefore inherited. He posits that ascriptive political office would be represented by an inherited position, whereas achievement would be exemplified by a bureaucrat recruited on the basis of acquired characteristics which are defined as necessary for the particular tasks to be performed (Smith, 2003, p. 48). That is, Africa's rich mineral resources are considered to be an inheritance for the continent, and are therefore classified as traditional. Hence the proponents of modernisation theory are motivated to prescribe to the continent how it should benefit its mineral resources.

Modernisation theory says that because leadership in Africa follows hereditary structures, it is not deemed to be modern. For Africa to reach this status, the processes of appointing leaders to positions should rather follow bureaucratic formations, as in Western countries. Eisenstadt (1966) posits that the separation of roles means, first, that in occupying a specific position in society, does not immediately confer to the incumbent a role in a particular environment which is different from what the individual currently occupies. That is, the occupancy of a particular leadership position cannot be assumed as an automatic fit in another position. Second, within the scope of respective institutions (in the economy, polity, sphere of social organisation,) distinctive units have emerged that are organised based on the objectives associated to each sphere. These were not connected, as is the norm in traditional societies, with other groups in a system founded on family, kinship, and territorial bases (Eisenstadt, 1966, p. 2). This is telling of the supporters of modernisation theory, whose assumption is that, the abundant mineral resources for them cannot be connected to the ability by African governments to engage in beneficiation processes. Proponents of modernisation theory presume that although the continent is awash with rich minerals it should not accord it any advantages.

Curtis (2016) notes that the United Kingdom (UK) and other Western governments have actively campaigned for African countries not to benefit their mineral resources, but to remain as the main exporters of raw materials. This meant that the continent was deemed unfit to benefit unprocessed metals, but rather to export them in their raw form to Western nations to benefit. (Curtis, 2016, p. 32). Such statements reflect the authority which the World Bank has over the national identity of African countries. The World Bank, as an institution developed by the Western nations

resembles what is modern, and it therefore dictates how Africa should follow Western steps of development. Accordingly, Rustow (1968) argues that issues related to authority, national identity, and equality are logically, and not just accidentally, related to modernisation. He notes that authority, defined under modernisation, is the political aspect of closer cooperation or interdependence. And that national identity draws its limits within such interdependence which is acknowledged without restriction (Rustow, 1968, p. 40). Rustow emphasises the assumption of modernisation theory by reflecting that all that is modern presides in Western nations, and that underdeveloped nations should accept the authority from developed countries, in order to be modernised.

Modernisation theory, according to Parsons, is a global phenomenon which is both revolutionary and evolutionary. The evolutionary aspect of modernisation theory refers to development progress, and the expected social change of societies (Parsons, 1971). Thus, modernisation theory expects the Third World to emulate Western nations in order to achieve similar social, political and economic development levels. According to Eisenstadt, expectations of modernisation theory on developing countries, does not only imply the progress of many aspects of rising structural differentiation, but also the separation of functions formerly performed by traditional institutions. It also implies the development of social arrangements which produce constant change, and which are also capable of absorbing changes outside initial institutional premises (Eisenstadt, 1965, p. 456). It is in this context that African scholars and policymakers championed the creation of development policies such as the LPA and NEPAD, to take charge of the revolution and evolution of modernisation in the continent. This could be realised by ensuring that mineral beneficiation takes place in the continent. In this respect, African governments have a clarion call to be seen as the ones defining and modelling their own perspective on mineral beneficiation in the continent.

Przeworski and Limongi (1997) note that the presumption of modernisation theory, is that there is one universal process - whereby democratisation is the final stage of development. They assert that modernisation theory involves a gradual distinction and specialisation in social structures, which leads to a separation of political structures from other structures, and makes democracy a reality. That is, modernisation's chain of command has aspects relating to industrialisation, urbanisation, education, communication, mobilisation, and political incorporation, as well as a progressive

accumulation of social changes that readies society to proceed to its culmination, which is democratisation (Przeworski & Limongi, 1997, p. 158).

Being modern is associated with power and control over the environment. In contrast, traditional man is described as static, and not believing in the capacity of man to change or to control the environment. According to Parsons (1971), the theory of modernisation rationalised change abroad, and the status quo at home. Mineral beneficiation policies represent the aspirations of African scholars and policymakers to redefine their destiny to develop the continent. Thus, modernisation as a dictate, views traditional social structures and values as a hindrance to modernising. Failure by traditional societies to understand the problem of over-population and over-urbanisation are seen as obstacles to modernising. Traditional societies are perceived to lack the rationality to produce policies, strategies, and interventions to improve their situations (Smith, 2003).

In conclusion, modernisation theory employs the analogy of a birds-eye-view. Such an analogy often makes inferences about situations from a far distance using an aerial view to develop a picture-square of the phenomenon in question. Modernisation theory represents the western nations' thought on how the continent should approach the issue of mineral beneficiation. The western notion was informed and motivated by their historical dominance over Africa either economically, militarily or epistemologically. The theory reflects how the western nations believe in maintaining the status quo where Africa is dictated to in respect of its own affairs. It revealed how the viewpoint of developed countries was considered to be the proper authority even though they lacked empirical knowledge on issues in Africa. The Third World phenomenon of development has taken root from the perceptions informed by the stages of development. Such stages of development as posited by scholars such as Lerner, Bernstein, and others, and were motivated by the subjective conceptualisation inherent within them. The theory depicted how Westerners expected the Third World, and Africa in particular, to emulate development, as it happened in Western nation's backyard. It is this conceptualisation which solicited the emergence of scholars criticising modernisation theory for the manner in which it analysed development in the Third World and Africa. The critique of modernisation was propelled mainly by Latin American scholars classified as Dependency theorists.

2.3 Dependency theory

Dependency theory is employed in this chapter to critique the tenets of modernisation theory. This is attributed to the stagnant development of the continent, even though it has many mineral resources. The theory is introduced to counter arguments by modernisation theory which claims that once developing societies encountered Western European and North American societies, they would be propelled toward modernisation, and would ultimately accomplish the economic, political, and social features of the nations of Western Europe and the United States. The dependency theory of development is an international relations theory. It studies the relationships and interactions amongst states in the Global North and Global South, whereby States in the Global South rely on the Global North for trade and economic aid.

2.3.1 Evolution of the theory

Dependency theory evolved as an alternate lens to understand the development of the Third World, and Africa, in particular. Andre Gunder Frank (1996) describes the dependency movement as a form of social change. He notes that the important factors in development are in the main political. He highlights that if political change is impossible to achieve through reforms, it could be achieved through a political revolution. Thus, according to Gunder Frank, dependency theory supports a radical route of economic reforms which are exemplified by the use of revolutionary language as a means. The dependency school was a reaction to the modernisation school which attributed underdevelopment challenges to the periphery. The dependency school argued that the challenges of the Third World were a result of its trade relations with the industrialised world. The dependency theorists posit that in these relations, satellite countries produce raw materials for the industrialised nations, and in return receive manufactured products back. According to Bath and James (1976) the dependency theory is divided into several strands which are reflected as conservative, moderate and radical. The conservative approach is linked to Raul Prebisch who is defined as less accusative in his tone when criticising modernisation; the moderates are represented by Furtado, Sunkel, and Dos Santos who apportion the blame on underdevelopment to both internal and external forces. The radicals are led by Gunder Frank whose writings clearly articulate the interests of Third World countries as opposed to those of developed countries (Bath & James, 1976, pp. 6-10).

Dependency Theory is said to have been conceptualised in the 1950s by scholars belonging to the United Nations Economic Commission for Latin America and the Caribbean, led by Raul Prebisch. Prebisch and his associates were troubled by the disparities in world economic growth, in which advanced industrial countries developed better than poorer countries. (Ferraro, 2008, p. 58). Although dependency theory is mostly associated with scholars theorising about underdevelopment in Latin America, it can also be applied to the African context, given the similarities of the developmental trajectories of these continents. Such characteristics relate to both continents' experience with colonialism; agrarian economies; dependency on mineral exports; poor and underdeveloped economies as well as high levels of unemployment. Even though this study acknowledges the relevance of dependency theory to an African development perspective, it will in the analysis section highlight alternative lenses from which African development can be understood.

2.3.2 Dependency theory by various scholars

Gunder Frank (1966) criticises the assumption of modernisation theory that the history of development in the Third World resembles the earlier stages of history, as experienced by developed countries. He further argued that modernisation theory incorrectly diagnosed the colonial and underdeveloped countries because of the differences in their historical development. He posits that to develop any theory and policy for the underdeveloped world one must learn about their past economic and social history, in terms of what gave rise to their current status. (Gunder-Frank, 1966, p. 27). In essence, his dependency theory holds that developed countries expanded their wealth at the expense of developing countries. Gunder Frank places the underdevelopment of the Third World on the doorstep of the capitalist system. His thesis attacked modernisation's view of a dual society characterised by income differences. He argues that dualism is responsible for the intensity and continuation of the underdevelopment conditions of poor countries and that it is not a remedy to the situation (Gunder-Frank, 1966, p. 28). His statements are a direct criticism of modernisation theory which simply takes a theory of development applicable to Western nations and then transplant it to the Third World. It also echoes the sentiments espoused in the development policies of African nations which assert that development can happen independently from the experiences of the developed metropolis. According to Taylor (2017), dependency theory is a form of tradition rather

than a single theory. He asserts that it is an intellectual tradition that questions the continuing characteristics of the underdeveloped world, mostly constituted by ex-colonial countries. He questions the Third World countries perpetual status quo of being referred to as underdeveloped (Taylor, 2017, p. 84).

Dependency theory criticises the industrialisation of a few capitalist countries and the subsequent creation of subordinate nations. These nations are confined within the international division of labour led by the capitalist economic system, which perpetually condemns them to such a status (Kaufman, et al., 1975, p. 304). In respect of mineral beneficiation, African scholars and policymakers, such as Mandela (1993); Fine (2002); Dlamini-Zuma (2014); Mugabe (2016); Hailu and Kipgen (2017) posit that the continent is relegated to only producing and exporting raw materials to developed countries, without adding any value to the products. Thus, African scholars and policymakers perceive this situation as taking away the continent's potential to beneficiate mineral resources on their own terms. They also view the loss of influence over mineral beneficiation as affecting the capacity of African countries to grow their economies and to develop the skills of their populations.

Osvaldo Sunkel posits that the conventional theories of growth and modernisation are the standpoint from which to define and view the reality of underdevelopment. He highlights that the capitalist economy provides a platform from which to understand the inside of the Third World social system and how it works. (Sunkel, 2016, p. 279). Sunkel opines that the concept of Third World development, and its accompanying characteristics, are generally shaped by the viewpoint of scholars based in developed countries. He further notes that underdevelopment cannot be separated from past processes such as the emergence in the international system which renders both underdevelopment and development as aspects of the same process of development. (Sunkel, 2016, p. 281). Sunkel views underdevelopment and development as concurrent events which are linked to each other when defining the dependent nature of the Third World. McGowan (1976) notes that there is a causal link in the inability of many Third World states to develop subsequent to the end of World War II. He asserts that the failure can be explained by the dependency theorists as attributed to the functions of the international capitalist political economy. This system dictates that the economic advances of developed countries are dependent on the perpetual underdevelopment of developing (McGowan, 1976, p. 26).

Susan Bodenheimer (1971) explains dependency in Latin America as having been caused by policies initiated by policymakers from the United States of America (USA). She notes that in an attempt to address the underdevelopment of Latin American countries, the USA initiated policy reforms under the Alliance for Progress program. The concept was based on the belief amongst American scholars and policymakers that governments in Latin America would undertake land and tax reforms with assistance from the USA. However, the continuing underdevelopment of the region encouraged scholars to criticise such policy initiatives. They argued that American policies reflected the bankruptcy of American theories in analysing Third World underdevelopment challenges (Bodenheimer, 1971, p. 329). The criticism levelled against US policymakers demonstrates their failure to examine underdevelopment in the Third World in relation to the development of advanced industrial nations. Conversely, Dos Santos (1970) notes that the concept of dependence is employed by scholars to understand the internal conditions of underdeveloped countries as part of the world economy. He asserts that the Third World must develop a theory of laws of international development that can explain the situation of underdeveloped countries. Such laws will attempt to make sense of the challenges faced by the Third World relating to its inability to adopt the patterns of efficiency which are typical of developed countries (Dos Santos, 1970, p. 231). Dos Santos's suggestion to formulate new policies is a reaction to modernisation as a policy framework to address the challenges of underdevelopment. He refers to the tenets of a world economy which breed unequal development. He points to issues such as development that occurs at the expense of others; trade relations characterised by monopolistic control of the markets; and financial relations which lead to the control by developed nations over the affairs of Third World countries.

According to Valenzuela and Valenzuela, the dependency perspective rejects the proposition of scholars of modernisation theory, who argue that national society is the primary characteristic in understanding the notion of underdevelopment. They note that the presence of aspects relating to traditional or modernity cannot be used to distinguish societies. Furthermore, such characteristics cannot be taken to contextually explain where modernity began or to explain the absence of modernity in others. Modernity is symbolised by the attainment of modern aspects of development related to technology, industrialism, and democracy. In this respect, juxtaposing

tradition and modernity is considered to be an inadequate concept in explaining the process. Thus, dependency theory provides that in order to understand the development of a national or regional unit, one needs to revisit the evolution of the world political-economic system which is associated with colonisation of the world by Europe. (Valenzuela & Valenzuela, 1978, p. 544).

Peng's proposition is that the economic backwardness and underdevelopment of Third World countries can be traced back to their dependent situations in the economic system of the developed countries. This underdevelopment should not be based on the pre-modernisation or pre-capitalist structures of the Third World as argued by supporters of modernisation theory (Peng, 2009, p. 42). Dependency theory thus points to an important dimension, in which Africa's economies and politics are heavily affected by their dependency relationships with rich Western countries. According to Cardoso, the inequalities present in Third World countries are exacerbated by using part of the capitalist growth process. (Cardoso, 1977, p. 85). Cardoso's focus is that these inequalities which are prevalent in the world, originate from the very development of industrialised nations. He posits that such a development process created a two-way relationship whereby poor countries mainly export raw materials and developed countries export manufactured goods.

Modernisation theory is further criticised by Reyes (2001) for assuming that development is unidirectional. This is reflected in Rostow's perspective (Reyes, 2001) which advances a model of development favouring development patterns, as in the United States. Such models of development which are based on how the US developed, created asymmetrical relationships between the Third and Western worlds. A common aspect of these relations is the process of development which dependency theory describes as favouring developed nations over Third world countries. Bierschenk and Spies assert that Africa has significantly grown to be more complex and diverse. They note that, the predominant trend does not involve a development from 'tradition to modernity' but first and foremost, increasing diversification and pluralisation (Bierschenk & Spies, 2016, p. 2). Thus, Bierschenk and Spies, in support of dependency theory, argue against the claim for a universalistic pattern of development and they highlight that development can take different forms.

Bond's (2017) proposition is that the development of dependency theory has derived its meaning from examining colonial power relations. He identifies issues such as the plantation system, settler colonial taxes, and exploitation by multinationals as aspects associated with the colonial power relations. He further asserts that the continuing extraction of raw materials from poor to rich countries signifies the dependency theory as an even more relevant framework to analyse these relationships. (Bond, 2017, p. 67). Thus, dependency theory provides a lens through which Africa's dependence on western nations can be understood. This is reflected by how mineral resources continue to be extracted for the benefit of foreign companies - and thus perpetually marginalising the African continent.

2.4 Conclusion

Dependency theory has demonstrated its relevance as the theoretical framework to explain debates in favour of mineral beneficiation in Africa. This chapter presented dependency theory as a framework designed to provide a lens from which Third World development can be understood. The theory was presented as a creation of mostly Latin American scholars who were motivated to expose the theoretical misfit of modernisation when explaining the underdevelopment of the Third World. The core message of dependency theory is that developed countries flourished at the expense of poor countries. This chapter identified the main criticism of modernisation theory by dependency theorists centred around issues of capitalism, colonialism, imperialism, inequalities, and the polarisation of society between tradition and modernity and between centre and periphery. The chapter further presented the dependency theory by highlighting the several strands that exist within the framework. The strands were identified as conservative, moderate and radical approaches. The chapter demonstrated that all the strands had the common characteristic of critiquing modernisation theory in what they believed was a failed policy initiative designed by developed countries to solve underdevelopment challenges in Third World countries. Yet the different strands represent divergent views of scholars in interpreting and presenting issues of development and underdevelopment in Third World countries.

Dependency theory was employed to question the thinking of modernisation theory as it placed the underdevelopment of the Third World and Africa at its doorstep. The chapter employed the theoretical frameworks developed by theorists such as

Prebisch, Sunkel and Gunder Frank amongst others to present arguments against the imposition of modernisation in the Third World. Dependency theory demonstrated its profound influence in the discourse about Third World development. The continuing writing and analysis of the theory by newer scholars renders dependency theory a relevant framework to debate and understand Third World development. However, as is alluded to elsewhere in this chapter, the dependency theory has its evolution in Latin America and written by scholars inspired by political and economic developments of that region. In this respect, this study's proposition is to introduce a discourse on African development employing perspectives by African scholars also inspired by the continent's development. The analysis section of the study will elaborate on such perspectives.

CHAPTER 3: LITERATURE REVIEW

3.1 Introduction

For long periods, the world capitalist system considered Africa as a cheap supplier of labour and natural resources. “A world-system is explained as a social system that has boundaries, structures, member groups, rules of legitimation, and coherence. Its life is made up of the conflicting forces which hold it together by tension and tear it apart as each group seeks eternally to remould it to its advantage” (Wallerstein, 1974, p. 347). This, according to the New Partnership for Africa’s Development (NEPAD) report has drained Africa’s resources instead of allowing Africans to use minerals and raw materials to develop the continent’s manufacturing industries and a skilled labour force, to sustain growth and development. Therefore, Africa remains the poorest continent even though it has very rich resources (Fine, 2002, p. 8). It is therefore argued that sound planning, and results-oriented policies and actions are the catalysts for the transformation of the continent (Fine, 2002). This chapter presents debates by scholars, government policymakers, Think-tanks representing regional organisations, and mining industry policymakers, who are debating as to whether mineral beneficiation is a solution to Africa’s underdeveloped economies and low skills base. This chapter identifies the debates surrounding whether Africa should be the place where mineral beneficiation should take place. The debates are also considered as catalysts to facilitate diplomatic discussions between proponents and opponents of beneficiating minerals in Africa. Diplomacy in this context represents the art and practice of negotiations employed by policymakers to lobby for mineral beneficiation in the continent. That is, for the African governments to realise their aspirations to cut down on high exports of mineral resources and engage in beneficiation, they ought to enter into diplomatic negotiations to change the course of resource management in the continent. The need to enter into diplomatic negotiations is necessitated by the fact that Africa owns mineral resources, but its manufacturing and processing lies in the hands of foreign companies.

The debates by various scholars on mineral beneficiation in Africa are structured along various themes. The first theme focuses on whether mineral beneficiation should be a policy imperative for African governments. The second theme revolves around the resource curse and presents debates critical of Africa’s mineral endowment. That is, Africa’s endowment in mineral resources is viewed as a hindrance to the development

of the continent due to the high levels of rents, as opposed to local beneficiation. It also advances arguments that abundant mineral resources cause poor growth and underdevelopment. The third theme represents debates which mitigate against resource curse arguments by making a proposition for how available mineral resources could be utilised to improve the economic prospects of the African continent. Furthermore, this theme propagates that African governments should use their abundant minerals to move from being dependent on developed countries and to beneficiate the minerals themselves. Theme four addresses debates on whether African countries can transform their abundant mineral resources as a comparative advantage to be economically competitive. Theme five discusses mineral beneficiation in respect of International Relations.

3.2 Policy frameworks on mineral beneficiation

3.2.1 Lagos Plan of Action and the New Partnership on Africa's Development

Policy frameworks on mineral beneficiation in the African continent can be traced back to the 1980s with the development of continental economic programmes such as the Lagos Plan of Action. The Lagos Plan of Action (LPA) was launched by African Heads of State and Government in 1980 as a policy document to address many economic development initiatives in respect of underdevelopment and low economic growth. The LPA proposed an alternative narrative to the Structural Adjustment Programmes (SAP) imposed by Bretton Wood institutions and it highlighted the vulnerability of African economies to worldwide economic shocks including the oil price shocks of 1973 (Busia & Akong, 2017, p. 9). Instead of lending credence to the LPA, and just over a year after its adoption by African leaders, the World Bank introduced its own report titled, "*Accelerated Development in sub-Saharan Africa: An Agenda for Action*". The report pointed to Africa's economic weaknesses to its domestic policy shortfalls and administrative limitations. It advocated for considerable currency devaluation and trade liberalisation and the dismantling of industrial protection measures. Importantly, these recommendations formed the basis of Structural Adjustment Programmes (SAPs) which became conditional for loans made to African countries by the International Monetary Fund and World Bank (Economic Commission for Africa, 2015)

Among the long list of programmes highlighted in the LPA, natural resources were identified as an important aspect to contribute to African aspirations for a better

economy. The LPA, as an economic development policy, was initiated as a reaction to the effects of declining oil prices which had impacted on African economies. Its main purpose was to identify industries that would help African countries diversify their economies. The document considered natural resources to be a tool that could provide a dependable platform for national socio-economic development.

The LPA encouraged African countries to invest in building a comprehensive knowledge of their natural resource wealth. Initiatives included the process of creating a capacity base by building institutions, with programmes geared towards conducting field studies, and the creation of records of natural resources. Specifically, African countries were encouraged to train their population in all aspects of mineral resources development. This included the training of high-level specialised personnel and medium level technicians to lessen the scarcity of qualified professionals, and to lessen the dependence on overseas expertise and specialised services (OAU, 1980, p. 25). In retrospect, the development of policy frameworks for the extractive sectors in Africa was not a far-fetched initiative. For example, countries such as Australia had initiated similar policy imperatives and institutional capabilities to achieve success in resource-based industrialisation (Fessehaie, et al., 2016, p. 8).

The policy debate surrounding the LPA was followed by the establishment of the New Partnership for Africa's Development (NEPAD) in 2001. NEPAD's Natural Resources Governance Programme (NRG) was envisaged to improve efficacy, transparency and sustainability of extractive industries in Africa so as to eliminate poverty, and ensure complete rewards for the population at local, regional and national levels (Fine, 2002). NEPAD covers several issues which are outlined in three parts. These are; conditions for sustainable development, sectoral priorities and mobilising resources. Mining forms part of mobilising resources. According to NEPAD, investment in mining is important and it is argued that the expansion of activities around it will result in the creation of employment with the added benefit of reducing the region's dependence on imported products. To achieve this, NEPAD proposes initiatives to address mineral beneficiation, such as establishing an African school of mining for the development and production of education, skills, and training at all levels.

Affirming this, the former president of Zimbabwe, Robert Mugabe, speaking under the auspices of the NEPAD Heads of State and Government Orientation Committee in

2016, stated that 'Africa is awash with mineral resources which are adequately exploited for the sustainable growth of the continent' (Mugabe, 2016). These sentiments were further echoed by former African Union Chairperson, Dr. Nkosazana Dlamini-Zuma, addressing the 34th SADC Summit hosted in Victoria Falls, Zimbabwe, who stated that for Africa to achieve its potential, it is only when it can reduce the high exportation of raw materials. She went on to add that the exporting of raw material resources is equivalent to transferring out of the continent, the high-level jobs that should be created (Dlamini-Zuma, 2014).

The Economic Commission for Africa (ECA) in 2013, echoed similar sentiments. It stated that African countries continue to occupy the bottom end of the global value chain. It further added that African countries have not yet fully exploited the abundant mineral resources in order to drive the industrialisation and structural transformation of their economies (AU & UNECA, 2011). The ECA explains the inability to take advantage of these mineral endowments as a lack of suitable knowledge and skills, technology and infrastructure. Consequently, Africa's minerals are exported in their raw form. In this respect, the African Union General Assembly concluded, in 2005, to commission the establishment of science and technology institutions in the continent. These Centres of Excellence would focus on research and innovation linked to entrepreneurship (ECA, 2011).

3.2.2 The African Mining Vision

As an extension of strengthening policy imperatives on mineral resources, the African Union (AU) introduced the African Mining Vision (AMV) and the Mining Chapter in 2009. The AMV advocates for a review of the minerals sector by integrating it within the local economy through beneficiating minerals, focusing on empowering and prioritising locally produced items, and having a good management of revenue from minerals. This is intended to build up other forms of capital which can outlast the currency of mining. The AMV was created as a policy option and guide to African countries on how to transparently and equitably exploit mineral resources so as to ensure broad-based sustainable growth and socio-economic development (AU, 2009, p. 1).

This policy framework was a response to fluctuating and declining commodity prices in the 1970s and 1980s (Page & Hewitt, 2001) which necessitated a rethinking of

managing the extractive sector in the continent. The blueprint of the AMV encourages African governments to conduct their mining activities by integrating the extractive industry into the local, national, regional and global value chains. The AMV as a policy document, ventured to address Africa's long-standing paradox of plentiful minerals but still so poor. Multinational companies continue to extract in abeyance and exploit minerals while Africans continue to be economically marginalised.

The AMV is regarded by African governments as a welcome policy framework that could transform the mining sector to benefit the African populace (Pedro, 2004). The AMV advocates for new operating modes of governance in the mining sector which are inclusive, and which seek to create an alternative African development approach.

The Africa Mining Vision was recognised by Oxfam. The latter produced a policy paper analysing the objectives of the AMV and expected implementation strategy. The Oxfam report (2017) asserts that the continent's enormous mineral deposit should be a significant catalyst for the continent's structural transformation. However, it laments the slow pace and lack of full implementation of the AMV framework. This results in Africa being unable to take advantage of its mineral endowments for development that is sustainable and inclusive. The paper further highlights that mineral resources are extracted mainly for processing and are used outside the continent. As such, mineral sectors have remained exclusive and disconnected from the broader economies. Further supporting policy for the minerals sector, Oxfam proposes recommendations that would enhance the AMV by addressing issues such as the implementation of the policy framework by African governments. It also calls on companies with business interests in Africa's mineral sector to introduce strategies that conform to the provisions of the AMV on human rights, corporate accountability, gender justice, and social and environmental impacts (Oxfam, 2017).

As a bold vision, the AMV focuses the discussion on the role of minerals in the economic development of African countries. The Country Mining Vision (CMV) is a platform that enables dialogue between stakeholders from the Ministries of Mines, to now comprise Ministries of Industry, Trade, Education and Research; including private and civil society actors. The CMV avails a policy space for interactions that transcend the revenue potential of mining. According to Pedro, this occurs through the usual processes which relate to the improvements of legal and regulatory frameworks,

refining mineral fiscal management, and offering investors a predictable and stable business environment. It also opens the space for a far deeper and fundamental structural shift, calling for a new dispensation and paradigm change (Pedro, 2015).

3.2.3 Debates on policies and strategies on the minerals sector

The study by Fessehaie et al. (2016), supports policies and strategies advocated by African leaders to leverage the minerals sector for a broader industrial and technological upgrading. In studying the development of policies for the extractive sector in Africa, specifically in Botswana, Zambia, and Zimbabwe, the scholars argue that these policies create long term opportunities for economic growth and skills acquisition. These policies are further seen as being able to uncover additional economic opportunities to be derived from available mineral resources. Supporting this is the argument by economic historians, Wright and Czelusta (2004) and Sachs and Warner (1995) who, in reviewing the experience of resource-rich countries, conclude that technology, skills, knowledge, and policies are instrumental for the success of resource-based industrialisation. These factors enable the expansion of the natural resource sector by improving resource discovery, resource extraction, and resource processing technologies, as well as moving the countries into new industries related to resource sectors (Fessehaie, et al., 2016, p. 2).

The former president of the Republic of South Africa, Nelson Mandela, speaking at the Sub-Saharan Oil and Minerals Conference, on the 29th of November 1993, added to the debate when he stated that Africa produces most of the world's minerals, such as, chrome, manganese, diamond, platinum, vanadium, and gold. However, it only uses a few of these minerals for the benefit of its citizens. He noted that additional solutions should be proposed such as regional and continental cooperation in the exploitation of mineral resources. This is linked to the notion that visible socio-economic benefits could be realised in the mining and production of commodities, such as, clay for bricks and ceramics as was the case during the Industrial Revolutions in Europe and North America (Mandela, 1993).

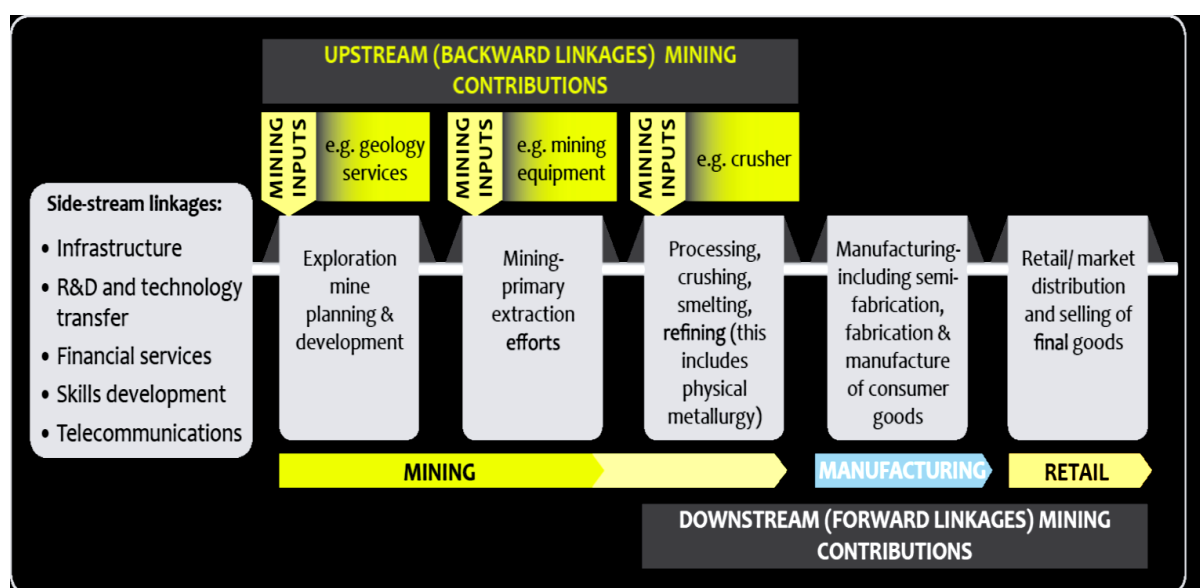
The African Union (AU) and the Economic Commission for Africa (ECA) further assert that the paradox in the continent's mining activities currently rest in historical and structural deficiencies. The sector's important features and challenges are that it is an exclusive industry which has very weak links with the rest of the national economy.

The ownership and operation of mines is in the hands of foreign companies, and most of the minerals are exported in raw form whilst the industry imports most of its value adds from abroad (ECA & AU, 2011, p. 151).

For example, sustainable beneficiation takes place in very few of the countries in which diamonds are mined. Most of the world's diamonds are mined in Russia, Botswana, Canada, Angola, the Democratic Republic of Congo, as well as South Africa. However, most cutting and polishing takes place in India, China and Israel. Most jewellery manufacturing takes place in India and China and in the main consumer markets (De Beers, 2015, p. 26). This reflects the fact that Africa is not taking advantage of/or benefiting from its abundant mineral resources. The scenario is reflected in figure 1 on the mineral value chain. This shows that Africa only participates in stage 1 and 2 of the process where the minerals are mined, extracted and exported to third parties for beneficiation.

Mohapi (2017) provides a global outlook regarding the continent's participation in the first, second and third industrial revolutions. He says that this mirrors the status of mineral beneficiation in Africa. He notes that several industrial revolutions have come and gone, and in each one, Africa has been exploited for the benefit of other continents. He highlights that some African countries are still battling with the mechanisation of production and he questions whether they are even producing (manufacturing) anything at all. All this occurs whilst the continent is still battling with first, second and third industrial revolution related matters (Mohapi, 2017). Rahel explains Africa's development challenges as an economic transformation process that has experienced premature de-industrialisation. He argues that the reason for the decrease in the economic weight of the industry in Africa is that it has taken place earlier than its level of development would have justified (Rahel, 2018). That is, African governments always have to deal with new and advanced economic development stages, such as industrial revolutions, which Western nations have already experienced. This creates a challenge whereby African industries lag behind because they operate in a global environment which is more advanced than their current situation.

Figure 1: The Mineral Value Chain



Source: (Eunomix Research, 2015)

Issues of African governments' policy frameworks on mineral beneficiation have also been discussed by mining industry leaders. Speaking at the Colloquium on Beneficiation, on the 27th August 2014, organised by the South African Parliamentary Monitoring Group (PMG), O'Flaherty, Chief Executive Officer, ArcelorMittal South Africa, added his voice to the debate. He stated that steel manufacturing supports the National Development Plan (NDP) and the South African government's industry policy on beneficiation (O'Flaherty, 2014). The National Development Plan (NDP) offers a long-term perspective on planned development. It defines a desired destination, and it identifies the role different sectors of society need to play in reaching that goal. The NDP aims to eliminate poverty and reduce inequality by 2030. It supports beneficiation to contribute to economic growth, development and job creation. It has also identified strategic minerals such as, iron-ore; polymers; titanium; which are to be commissioned for downstream beneficiation and export to other countries (National Development Plan, 2013).

However, O' Flaherty highlights that the critical factors affecting beneficiation are costs, and specifically labour costs, which are related to productivity, high electricity costs, high transport costs, high port costs and inflated electricity costs that have been historically levied to finance the inefficiencies of local municipalities. He added that there are insufficient proper incentives to support the local beneficiation of raw

materials; together with limited value adds for export incentives; and high costs of capital. (O’Flaherty, 2014).

Speaking to Mining Weekly (3 April 2015), the Deloitte & Touche industry leader for mining, Tony Zoghby suggests that the world has become far too competitive for South Africa to take up the mantle of downstream beneficiation. With its high working costs, inefficient labour productivity, and constrained and expensive infrastructure, South Africa cannot expect to compete against much cheaper and more efficient manufacturing jurisdictions (Zoghby, 2015).

3.3.4 Conclusion

Debates on mineral beneficiation in the continent have been informed and supported by the formal policies which have been initiated by African leaders. The purpose has been to improve the economic prospects of their respective countries on the continent. Although the continent has such policies in place, the issues of poverty, underdevelopment and under-skilling continue unabated. This indicates that implementation is a challenge. This accounts for the current debate on mineral beneficiation. The current debate suggests that the African continent fails to harness the policy imperatives initiated and developed by its leaders to improve their economies and the skills of their people. Bello (2015) argues that domestic beneficiation will only work where physical and human capital levels are high enough to process materials rather than expecting enforced processing to generate the required skills and infrastructure. He further argues that the relationship between business and the state must be based on trust, and mutual understanding. He recommends that policymakers tailor beneficiation policies to their countries’ needs; and that they implement robust but flexible tax regimes to promote local value addition without undermining businesses. He also says that policymakers should consider external strategic partnerships with, for example, China (Bello, 2015).

Policy debates on mineral beneficiation in the continent illustrate the importance (but also the dependency) on the extractive industry. Conversely, this also highlights the fact that many African countries rich in mineral resources have been unable to convert their resource wealth into inclusive social development. It is emphasised that the local beneficiation of minerals can have a positive socio-economic impact in local communities and could contribute to the development of key infrastructure as a major

source of employment for local people. The revenues accrued from mineral beneficiation activity could contribute positively to export and foreign exchange earnings. In this respect, the regulatory frameworks being developed across Africa are oriented towards promoting the local beneficiation of minerals.

African policymakers have developed several policy frameworks to take advantage of the available mineral resources so as to spur economic growth and to create better living conditions for the continent's population. Many conferences have been organised to create platforms for policymakers to engage in debates on how minerals could be beneficiated for the benefit of the continent. However, the African continent seems to be suffering from a continued policy formulation drive on mineral beneficiation without being able to implement such initiatives so as to derive sustainable economic growth for the continent. The lack of policy implementation could be a reason for the continued underdevelopment of the continent's extractive sector. This depicts a lack of essential technical skills to effectively engage in the beneficiation of the abundant minerals. This reflects the many instances where African leaders have initiated policies aimed at taking advantage of plentiful minerals. However, as is the case, they find themselves reinventing the wheel by introducing new policies to address what previous policies were set out to achieve. For example, this chapter referred to the Lagos Plan of Action, Abuja Treaty, NEPAD and African Mining Vision as policies initiated subsequent to each other to address African development. This is a reflection that many policies were developed but the continent could not achieve the desired development outcomes in each one of them. In this respect, African government's find themselves engaged in debates about mineral beneficiation as an attempt to realise the objectives of their policies.

3.3 The resource curse

The resource curse debate is applied in this chapter because the concept promotes the narrative that the abundant mineral resources in the continent are the cause of poverty. The concept is employed to highlight the views of scholars and policymakers arguing that Africa is underdeveloped and therefore cursed because it is rich in mineral resources.

The concept of the "resource curse" was introduced by Richard Auty in 1993 to define how countries rich in natural resources are generally unable to use that wealth to

improve their economies; and how counter-intuitively, these countries had lower long-term economic growth than countries which did not possess an abundance of natural resources. According to this concept, developing countries have limited infrastructure and industrial capabilities; or that their governments frequently become heavily dependent on exporting raw materials to more industrialised economies. These economies have the capability to produce finer products and sell them at a higher price often back to those same developing countries. Countries that are not developing tend to focus only on extracting and committing natural resource rents in situations that are contrary to the competitive diversification of the economy. This leads to the failure of economic growth, and in this case, the recovery tends to be protracted (Auty, 2014). Debates on the resource curse follow the theory that most resource-rich countries tend to be characterised by poor economies, underdevelopment, and conflict. Instead of developing and becoming rich, such economies tend to be affected negatively by being rich in mineral resources. Therefore, the status of being rich in mineral resources but poor economically is associated mainly with the African continent. Views on the resource curse are referenced and typified in studies by Di John (2002), Auty (2014), Mehlum et al (2005), and Bontadini and Savona (2017).

Considering the various schools of thought surrounding the resource curse, this chapter identifies that these debates are informed by certain characteristics. For example, the resource curse is defined and explained using characteristics such as poor governance, levels of corruption, instability in the country, the inconsistency of the political system and non-existent judicial independence. Lawson-Remer and Greenstein (2012) note that data on mineral resources shows that Africa holds 60% of the world's platinum deposits, more than 40% of the world's gold and almost 90% of the world's diamonds. Added to this are substantial oil reserves that remain largely unexplored. Yet Africa remains the world's poorest continent with 47% of the population living on less than USD 1.25 per day. This accounts for the constant refrain in Africa: which is "If we are so rich, why are we so poor (Lawson-Remer & Greenstein, 2012, p. 21). Given this data, it is clear that many African countries rich in mineral resources make poor use of their wealth, which adversely affects their potential to be ranked amongst the rich countries of the world. For example, in 2010 Equatorial Guinea had an estimated 75% of its population living on less than USD 700,00 a year even though its average per capita income was almost USD 35,000 which is

considered to be the highest on the continent (Lawson-Remer & Greenstein, 2012, p. 21). This can be attributed to both the mismanagement and unequal distribution of wealth emanating from mineral resources, which is interpreted as a resource curse by many scholars.

Di John (2002) notes that following the end of the Cold War; there were new sources of conflict in Africa. He indicates that abundant mineral resources were identified as the main sources of such conflicts. Di John (2002), Mehlum et al. (2005), Lawson-Remer and Greenstein (2012), identify mineral rents or the rentier state model as one which can explain the systems through which the abundant minerals produce negative results. The rentier state model is based on the presumption that when states accrue their revenue from external sources, it has implications on the levying of taxes, and affects the accountability of leaders to society (Di John, 2002, p. 2). The resource curse debate in Africa can be attributed to the high level of exporting mineral resources without first beneficiating them in the continent. This creates a cycle of dependency whereby African countries rely heavily on multinational companies from developed countries to mine, extract and purchase their raw mineral resources.

The rentier model further perpetuates underdevelopment and unskilled labour. This is because it does not require much technical input which, is often associated with mineral beneficiation. The resource rent theory further says that the resource curse is caused by a disjuncture between leaders and citizenry with respect to taxation. Corruption is said to be rife in Africa where revenues are siphoned into corrupt leaders' pockets (Lawson-Remer & Greenstein, 2012, p. 20). Mehlum et al. (2005) present a scenario where resource booms become a resource curse rather than a blessing. They note that on average, resource-rich economies have lower growth, weak institutions and more conflicts than resource-poor economies. Therefore, although African countries are endowed with mineral resources, their economies are characterised by poor growth and instability. Being rich in mineral resources is therefore associated with being poor in material wealth. The study by Masi, Savoia, and Sen (2018) links the resource curse literature to the nature of unproductive activities. They argue that natural resources prevent economic growth if the quality of institutions that govern the profitability of productive enterprises is such that it encourages rent-seeking. That is, Africa is unable to develop because its institutions

promote rent-seeking, instead of engaging in mineral beneficiation of the continent's natural resources (Masi, et al., 2018, p. 5).

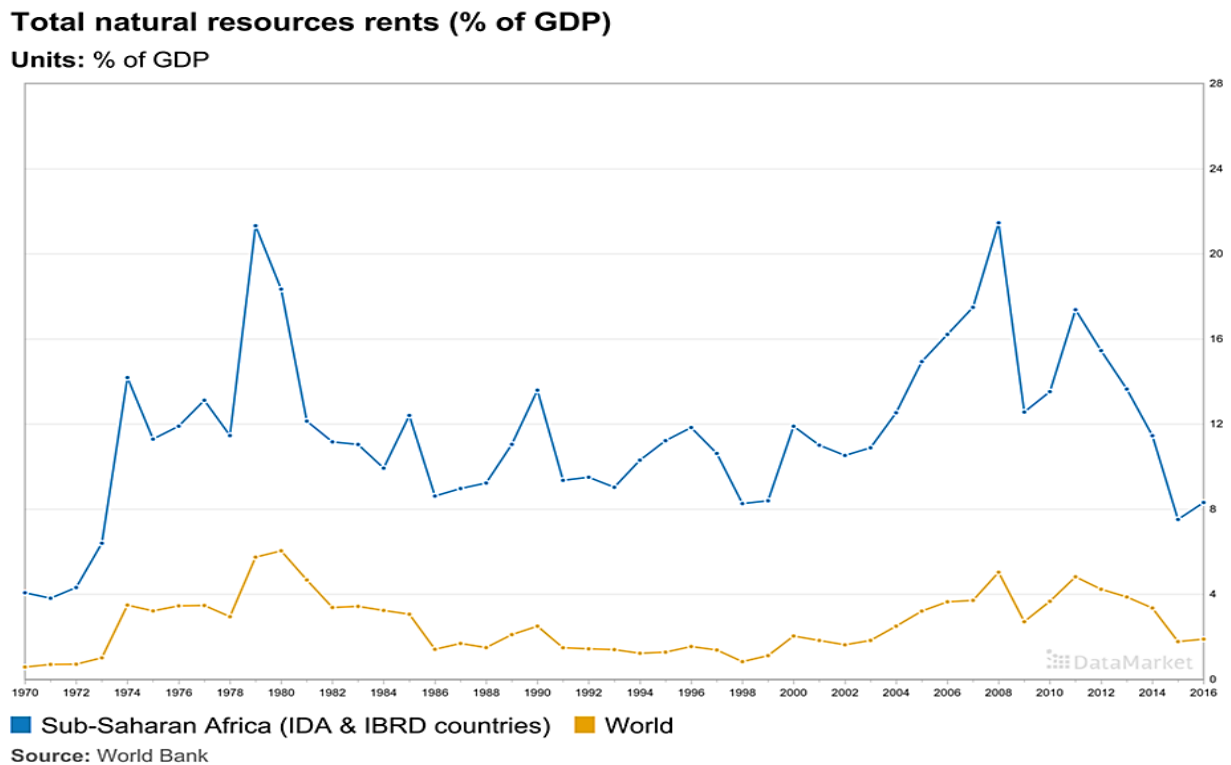


Figure 2 illustrates the level of resource rents in percentages. It depicts Sub-Saharan Africa as heavily dependent on the exporting of mineral resources compared to the rest of the world. This further highlights the challenge faced by African countries when their economies are prone to shocks in international markets, and fluctuations in commodity prices. For example, countries that are dependent upon commodity sales experience fluctuations in commodity prices which are either disasters or windfalls.

Writing in the International Monetary Fund (IMF) working paper, Lee and Gueye (2015), note that abundant natural resources create an opportunity to improve economic growth and reduce poverty. In 2012, total natural resource rents accounted for 16.2 per cent of the gross domestic product in Sub-Saharan African (SSA) countries which is much higher than the world average of 9.8 per cent, and only behind the Middle East and North Africa, 20.9 per cent (Lee & Gueye, 2015, pp. 5-6). Therefore, SSA resource-rich countries may have not effectively utilised the opportunity from a natural resource boom well. The IMF acknowledges the contribution

that mineral resources can make to Sub-Saharan African countries' growth through resource rents, but it laments the lack of mineral beneficiation to complement the economic growth associated with the exporting of mineral resources.

Notwithstanding this, the abundance of mineral resources is credited for propelling countries in Europe, and North and South America to greater economic heights. Such countries enjoy high levels of Gross Domestic Product (GDP's) and mineral resources positively contribute to their economies. However, these countries have low levels of resource rents and engage in the beneficiation of mineral resources rather than exporting them in their raw form. Thus, the lack of mineral beneficiation at local set-up could be a cause of the resource curse, as opposed to corruption and mismanagement, alluded to in the literature. African countries tend to resort to civil wars over mineral resources because no value addition exercise is performed to increase potential revenue to skill-up their citizenry in various technical capabilities. This view is emphasised in the study by Kurecic and Kokotovic (2017, p. 2). They assert that natural resource extraction and export, if not included in the industrial production processes in the countries of origin, is in most cases the cause for economic stagnation or even recession. This hinders democratic processes and destroys political freedom and civil liberties.

However, the study by Warner (2015) questions the validity of using GDP growth levels as a determinant of a resource curse scenario in mineral-rich countries. He argues that the literature does not reach a consensus as to whether the slow-growth syndrome persists for the recently booming group of resource-intensive countries. He notes that instead of analysing GDP holistically (that is inclusive of all the economic sectors) its trends need to be segmented into non-resource and resource GDP growth. His findings define a resource curse as something that either occurs in the resource or non-resource economy. Such a curse is about causality from natural resources to the non-resource economy. This means that, the resource curse happens when both the non-resource and resource economy does not reach equilibrium or balance and thus negatively affect each other. The equilibrium is reached if the exporting of raw materials benefits both the exporting and importing countries. The study suggests that higher resource rents should be equal to higher human and physical capital accumulation which would be an indication that the rents are invested well. Warner's

viewpoints to this study's enquiry as to whether mineral beneficiation is a panacea for Africa's economic growth and skills development.

Warner's study depicts an anomaly in resource-rich countries, in which the export of mineral resources is higher than value addition activities. In other words, the heavy reliance on mineral rents prevents such countries from reaching equilibrium because mineral beneficiation does not take place at a local set-up. This prevents these economies from innovating and up-skilling their workers to become experts in the products which they produce. This study confirms figure 1 which illustrates that African countries that are rich in mineral resources do not participate in the full life cycle of the mineral value chain. Africa would not reach the purported equilibrium if it does not take advantage of its plentiful mineral riches. The continent should not only extract to export, but also engage in mineral beneficiation for purposes of diversifying economies. Stijns' (2000) notes that the learning process relating to minerals, is critical in enabling countries to exploit their resource base. African countries must learn the skill of beneficiating to fully exploit their mineral resources. Economic historian, Wright (2004) suggests that if societies are equipped with high forms of knowledge to develop their resources, they are more likely to gain rewards equivalent to manufacturing. Both Stijns and Wright see the imperative of resource-rich countries beneficiating their minerals to improve skills, as well as to help economies diversify.

Notwithstanding this, the lack of mineral beneficiation is a manifestation of the dispossession of the African land by the colonialists. According to Tafira and Ndlovu-Gatsheni (2017) the dispossession of land represents the foundation of colonial modernity which is symbolised by conquest, domination and exploitation. They further assert that coloniality created an economic system of labour alienation and profit making through the conversion of land into a commodity (Tafira & Ndlovu-Gatsheni, 2017, p. 10). As a result, African countries tend to experience high waves of mineral rents. This further highlighted how Africans were deprived of the opportunity to use land to engage in mineral beneficiation and up-skill themselves. Such a deprivation to own and use land contributed to the escalation of the resource curse syndrome in the continent.

Rodney (1973) argues that Western Europe owes its development to the blood and sweat of the continent. He asserts that such a development happened through the

transfer of wealth from Africa to Europe using international trade which was firmly in the hands of Europeans. In this way Europeans had a monopoly over the international exchange system which Africans had no knowledge of (Rodney, 1973, p. 2). It is this superiority of knowledge which ensured that Europeans could extract minerals out of the continent and beneficiate them elsewhere. The rentier state model was also exacerbated by the existence of a metropole and dependency concepts in the international economic system. This meant that Africa became an extension of the European market which had the power to force the continent to be dependent on what Europeans were prepared to buy and sell from them (Rodney, 1973, pp. 2-4).

It is evident that issues of domination and conquest over Africa in the international market contributed to a shift in labour from the manufacturing and other sectors to the resource sector. This was manifest in an African economy which was characterised by abundant mineral resources, but without any mineral beneficiation activities. Thus, the resource curse has become entrenched due to the colonial mismanagement of the African labour force and the subsequent neglect of the manufacturing capabilities. Janda and Quarshie (2017) argue that the colonial system of governance in African countries is responsible for the weak institutional infrastructure. They assert that the organisation of the continent along geographical lines left it heavily divided after independence. Colonial masters were favoured over Africans to live in areas endowed with natural resources which fuelled different standards of living favouring a few elites over majority of Africans (Janda & Quarshie, 2017, p. 8). The poor living standards of the majority of Africans has developed into the epitome of the resource curse narrative in the continent. Although the continent possesses plentiful minerals, it acquired the status of the resource curse due to the structural indifference of colonialism.

Ndlovu-Gatsheni (2017) argues that Africa's current state of underdevelopment can be traced back to many years of coloniality. He posits that coloniality disrupted Africa's history of development and robbed its future hence it ended up as the most marginal continent in world affairs (Ndlovu-Gatsheni, 2017, p. 16). Thus, the resource curse explains Africa's marginal status in world affairs in which long periods of being subjected to coloniality affected the continent's potential to leverage the many mineral resources it possesses.

Di John (2002), Mehlum et al (2005), Olayele & Soo (2018), and Pedro (2004) refer to the Dutch Disease when addressing the resource curse syndrome. The Dutch Disease syndrome explains that natural resource discoveries have negative effects on a country's manufacturing. For example, when a country experiences benefits due to a high level of natural discovery, it normally experiences a real increase of its exchange rate, resulting in rising wages and a relocation of some of the labour to the resource sector (Collier, 2010).

The Dutch Disease analogy seems to be an imperfect reference to the challenges faced by resource-rich African countries. The counter-argument is that exchange rates in the continent have been relatively low, with a history of underpaid workers and high unemployment. This is contrary to what the Dutch Disease attempts to clarify. In other words, the Dutch Disease in its current definition is not relevant and has lost its meaning in the African context. This argument is supported by authors such as Bresser-Pereira (2008) who links the resource curse to a market failure instead of the analysis of the Dutch Disease; Di John (2010) and (2011) find that it has significant shortcomings in terms of theory and evidence; and Hodge (2012) notes that there is no evidence of a Dutch disease-specific effect on South Africa. This indicates that the Dutch Disease cannot be generally applied to African economies when explaining abundant mineral resources and poverty in the continent.

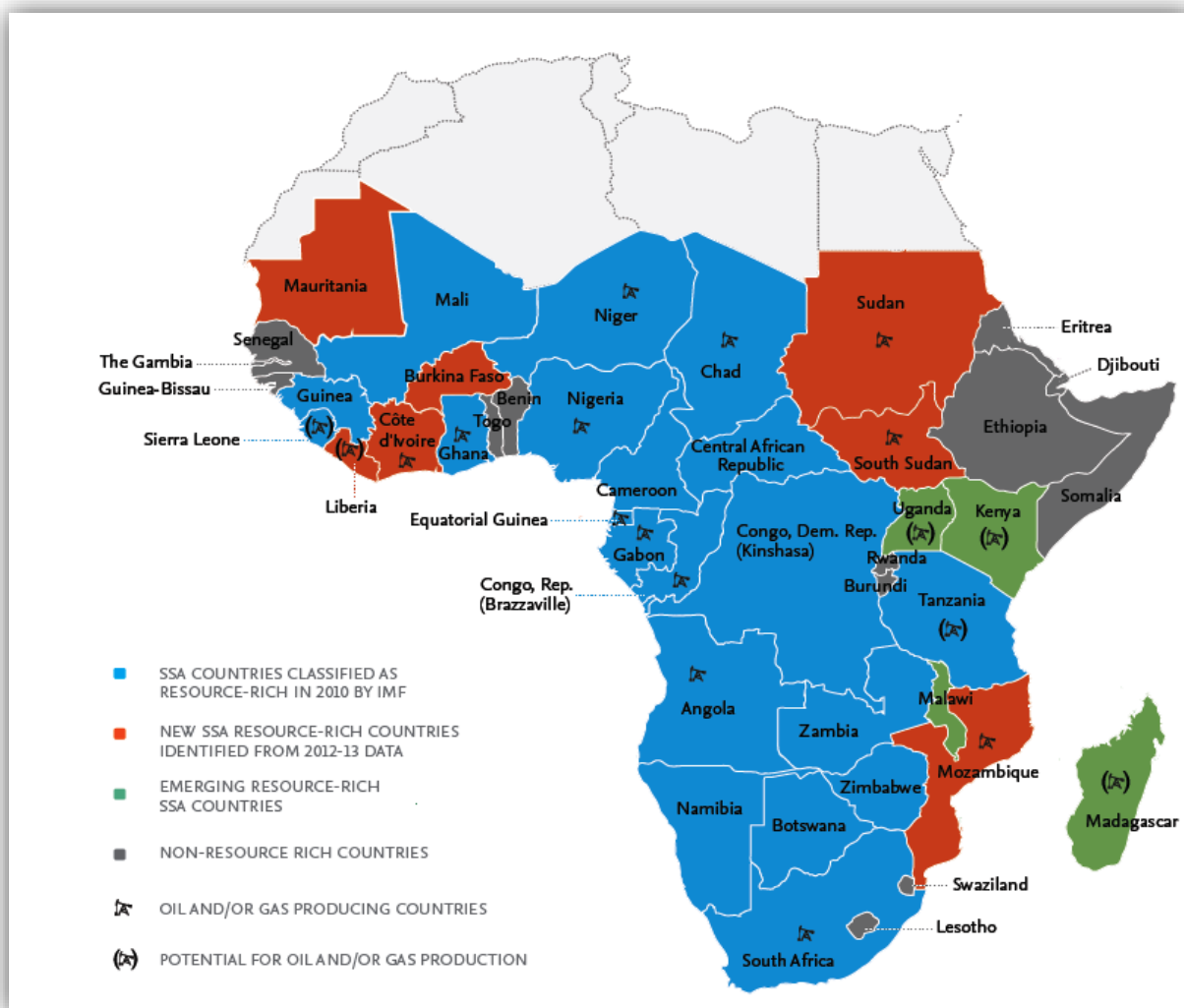
The significant body of research on the resource curse identifies different theories which connect the resource curse to weak institutions, rentier state, Dutch Disease, GDP growth levels, constitutional arrangements and the effectiveness of domestic investment. However, it is clear that none of the literature reviewed on the resource curse advocates for the mineral beneficiation of raw materials in Africa as a mitigating factor to the syndrome. The research study by Szalai (2018) says that strong theoretical and empirical evidence supports the debate that the resource curse exists, and that the adverse effects seem to be conditional on the economic and social norms of the country where the extraction takes place (Szalai, 2018, p. 185). Thus, in reference to Africa, this study advances the argument that the lack of mineral beneficiation could be the prevailing condition that creates the phenomenon of the resource curse.

3.4 A shift from dependency to local mineral beneficiation

As indicated, Africa has rich mineral resources, but is considered as underdeveloped, with low economic growth and unskilled labour. The continent holds a large deposit of mineral resources ranging from platinum, gold, and diamonds, yet it remains the world's poorest continent.

According to Ncube (2012), most African countries rely on the manufacturing of metal and mineral products. Data and statistics from the IMF reveals that 24 out of the 54 African countries rely on limited mineral products to produce more than 75% of their export earnings. This wealth of natural resources has not yielded acceptable and long-lasting economic growth in the continent. The IMF report (2015) notes that countries exporting non-renewable commodities such as oil, gas and metals play a significant role in the global economy. The IMF report further classifies such countries as a mixture of high, middle and low income countries which account for 20 percent of world GDP and global exports. These countries are said to hold a large share of the world's mineral deposit, with almost 90 percent of crude oil reserves and 75 percent of copper reserves. Notwithstanding, many of these resource rich countries struggles to leverage the abundant mineral resources to improve their economies and living standards (IMF, 2015, p. 1).

Figure 3. Illustrative map of resource-rich countries in Sub-Saharan Africa



Sources: “National EITI reports, World Bank country profiles, UN Comtrade statistical yearbooks for 2012 and 2013, IMF data 2014”.

Hailu and Kipgen (2017) describe the excessive and endless dependence on the extraction of oil, gas, and minerals for export earnings and fiscal revenues as a challenge for persistent slow economic growth in resource-rich nations. They advance strong arguments for reducing the terms of trade because of the high dependence on commodity exports and the associated volatility in prices. Their research also addresses issues pertaining to weak governance, and the poor environmental and social safeguards associated with the extractive sectors.

The heavy dependence on the export of raw materials raises concerns about the ability of African countries to move from mineral resource dependence to beneficiation. The 36th SADC Summit (2016) proposed that beneficiation could be achieved through the employment and training of locals in beneficiation. In this case, multinational companies should not only employ locals, but need to impart the necessary skills so as to ensure full participation in economic development. The training of locals is also seen as a catalyst for economic diversification. This could contribute to an increase in the levels of local content and benefit other areas of production. To account for a country's capability to locally process its raw materials, the study by Hailu and Kipgen (2017) employs an indicator referred to as “per capita manufacturing value added”. This shows that, the more value addition in the resource sector, the higher the levels of transferable skills that can increase technology transfers and employment mobility within and between sectors.

Hausmann, et al. (2008) highlight the importance of forward linkage-based policies in the mining sector. That is, investment in mineral beneficiation will encourage investment in other areas of production. They provide examples of South Africa, Zambia, and Botswana as countries that introduced such policies. In the case of South Africa, the National Industrial Policy Framework proclaims that “the promotion of beneficiation of raw materials in downstream sectors is a logical progression to complete various value chains in the South African economy” (The Department of Trade and Industry, Republic of South Africa, 2007, p. 4). The Zambian fifth national development plan recognises the significance of beneficiating mineral products. In this sense, it attempts to incorporate and encourages the integration of value addition into the copper mining sector. In Botswana, the government has pressured its joint venture with DeBeers (Debswana) to actively promote downstream processing to include diamond cutting and polishing. The local beneficiation of minerals can have a positive socio-economic impact in African communities. It could also contribute to the development of key infrastructures, as well as become a major source of employment. Moreover, the revenues accrued from mining activities could contribute positively to exports and foreign exchange earnings (De Beers, 2015).

The study by Hailu and Kipgen (2017) provides an illustration of the levels of dependency on the extractive sector in the continent. It highlights how Nigeria and Botswana have shown different outcomes based on the level of their dependence on

mineral resources. For example, the study establishes that Nigeria is heavily dependent as a result of a lack of diversification, whilst Botswana is less dependent due to the country's efforts to promote downstream value addition, diamond beneficiation, agriculture, and tourism. These sentiments have been echoed by African experts and researchers, Nkurunziza, Mirembe and Kelbore (2015), at the African Economic Conference which debated the dependency of African countries on mineral resources. They asserted that chronic dependency has been a long-observed phenomenon, and that a practical solution would be to move towards a model under which raw materials are processed locally.

Auty (2006, p. 19) disagrees. He says that mining firms in developing countries operate within an environment that is not conducive to engaging in economic activities. Such an environment reduces the socio-economic linkages by discouraging investment in backward and forward linkages. For example, in attempting to boost local participation, governments in resource-rich African countries compel mining industries to partner locals in joint ventures. As a result, such joint partnerships become conduits by which mineral rents are siphoned away. Thus, local beneficiation is seen as an extension of the rentier state which does not translate into economic growth.

In pronouncing the choices to mainstreaming mineral wealth in growth and poverty reduction strategies, Pedro (2004), identifies the various responsibilities that large and artisanal, or small-scale mining, could play in African economies. These are that mining needs to be recognised for its ability to encourage skills and knowledge development; the establishment of domestic human and social resources; the promotion of downstream processing; beneficiation industries and centres of knowledge and innovation. Similarly, Khama (2014) says that the desire by African governments to receive better value from their minerals and develop into manufactures of goods, rather than high exporters of raw materials, is legitimate and reasonable. If successful, beneficiation could help governments engage their populations, as well as add value for investors, by stabilising the business environment. Additionally, she describes beneficiation as an industrialisation and trade policy issue in which government intervention is necessary.

Shine (2014) shares similar views. She explains that it is important for governments and businesses to develop a mutually beneficial solution. This is because poorly conducted beneficiation could result in value destruction. However, according to a statement by De Beers, mining industry processed minerals have higher returns, in both commercial and socio-economic spheres than raw materials. This occurs predominantly if one takes into consideration the main and secondary growth opportunities that come with localising additional, higher skilled industries. In this respect, governments are progressively aware of opportunities to encourage relationships between the mining sector and downstream processing opportunities, as well as likely prospects (De Beers, 2012).

Kooroshy (2014) provides two rationales to account for the desire by governments to engage in mineral beneficiation. That is, economic and political. The economic rationale proposes that the country will see long term benefits from the emergence of a downstream sector; which involves more technology and labour; is more capital intensive, and captures a greater part of the value added, rather than the primary sector. This would lead to broader growth. Beneficiation strategies are typically presented politically to prevent the exploitation of a country's resources by foreigners who may leave behind little in-country development, and therefore subject the country to being a supplier of cheap raw materials. The report by the International Study Group on Africa's Mineral regime (AU & UNECA, 2011) asserts that the prioritisation of the downstream processing of minerals over export should not be pursued, over the national agenda for the minerals industry, in isolation. Beneficiation, according to the report, adds value to growth and diversification only when it generates above-average upstream and side stream linkages and should not be pursued merely because a country is endowed with mineral resources.

A research study in 2011, by the ECA and the African Union (AU) on mining policy framework development, presents efforts by the Regional Economic Communities (REC's) to harmonise sub-regional mineral policies in the extractive sectors. The study highlights some of the initiatives undertaken in the Southern African Development Community (SADC); the Economic Commission for West African States (ECOWAS); the East African Community (EAC); the West African Economic Monetary Union (WAEMU) and the Mano River Union (MRU). It demonstrates various experiences in initiating and outlining sectoral strategies for strengthening economic integration. The

research study emphasises the importance that African governments should attribute to the mining industry as a catalyst for economic growth and skills development. These regional harmonisation processes converge with continental frameworks such as the African Mining Vision (AMV) which is aimed at mainstreaming the use of mineral resources in Africa (AU & UNECA, 2011, pp. 141-150). For example, the African Mining Vision proposes that a significant intervention area lies in establishing the capacity of the continent in aspects relating to continuous auditing; monitoring; regulating and improving resource exploitation policies, and to create linkages between the domestic economy and the resources industry. This could be achieved through ensuring that skills transfer is instituted by all the agencies during the lease/license negotiations. This would also include the integration of strategies critical for the implementation of regular resource governance capacity (AU, 2009, p. 18). Thus, the AMV proposals provide a roadmap by which African governments can move their nations from being dependent to being able to beneficiate their minerals.

Pedro (2004) laments the weakness in cooperation between the natural resources sector and the industrialisation of the continent. He notes that linkages in most countries are government-centred and exclude local communities. He asserts that where there is justification for the improvement of the economic, social and environmental spheres, mineral resources should not be left unattended. Instead, they should be legally exploited, using the uppermost corporate, social and environmental principles to ensure better development outcomes (Pedro, 2004, p. 5). This is because mineral resources are finite. Thus, abundant resources should be devoted to creating additional wealth, including generating new systems of renewable capital; such as human; social and physical capital; which are key to achieving sustainable development beyond the currency of mining (Pedro, 2004, p. 6).

Lopes notes that Africa's consumption of, and value add, to its mineral resources is extremely low-hence the low levels of mineral beneficiation. The continent is a net exporter of raw materials that fuels prosperity and development in other regions. He further argues that Africa is mainly perceived as a price taker rather than a price-maker, with only a minimal role in international trade. Therefore, the continent continues to struggle with low levels of economic transformation, low or no resource rents, and high unemployment. He concludes that the current resource-for-development model is not working to bring about equity or to boost development

(Lopes, 2013). The AU report (2011) on developing a mining policy framework for development, asserts that efforts need to be directed at expanding the higher technical skills required by the minerals industry. It further notes that public support has become more important to realise innovation in fields associated with the extraction of mineral resources. This relates to fields such as tax incentivisation of local Research and Development (R&D) and technical human resource development, as well as the allocation of some resource rents to developing technological linkages (AU & UNECA, 2011).

The research findings by Hausmann, et al., (2008) suggest that subsequent industries emerging through the growth of beneficiation in mining add a small value when compared to the traditional determinants of comparative advantage. According to their research, policies which assume that exploiting minerals equate to beneficiation are not supported by international experience. Furthermore, and to some contradiction, engaging in mineral beneficiation is mostly affected by high costs associated with transportation. That is, savings realised through low transportation costs in the local production of mineral resources, is considered not a reason to engage in beneficiation. Consistent with this finding, their study demonstrates that the small impact of forward linkages on production patterns is even weaker from primary raw materials than from other manufactured goods.

The study by Grynberg and Sekakela (2016) argues that with the associated increase in commodity prices which are driven by Asian demand, there has been a price convergence in smelting, refining and semi-fabricate margins between 2004 to 2005 in Africa. This is attributed to an aggressive Chinese industrial policy on beneficiation which has created an overly capacitated and subsidised sector. The study presents the effects which high demands on mineral producing countries have had on local mineral beneficiation in Africa. The study describes how China and Japan, who are motivated by their industrial policies, have successfully beneficiated copper concentrate produced in other countries. The study concludes that the expansion of beneficiation capacity in China lowered the processing margins in the middle of the value chain. Thus, mineral-rich African countries are unlikely to move beyond the export of unprocessed raw materials. Similarly, a research paper by Busia and Akong (2017) paints a depressing scenario in which the current slow-down of growth in China, which consumes over 50% of all metals, has significantly weakened mineral prices.

Thus, the prospects for African countries to transform themselves from being exporters of raw minerals to engaging in beneficiation diminishes with the reduction in revenue from rents.

3.5 Comparative advantage

Africa is endowed with mineral resources. This gives the continent a comparative advantage over countries with fewer or no minerals. However, the continent is at a disadvantage because it is not producing the abundant minerals efficiently so as to beneficiate them, and to use them as a comparative advantage. Comparative advantage is necessitated by the fact that mineral resources exist in Africa. Thus, this chapter employs the concept of comparative advantage to ascertain whether the abundant minerals and beneficiation afford Africa a comparative advantage in international trade.

The concept of comparative advantage was introduced by David Ricardo. It suggests that a nation will export the goods or services in which it has its greatest comparative advantage and import those in which it has the least comparative advantage (Ricardo, 1821). Comparative advantage involves two goods and two countries, in which the country that produces more of one good than another, has a comparative advantage. However, the comparative advantage in the context of this study relates to a country's potential to advance economically based solely on the mineral resources available within its borders, and not compared to what another country produces. That is, comparative advantage refers to the volume and type of mineral resources an African country possesses. Thus, the abundance of a particular mineral resource gives a country a comparative advantage over those without it.

Comparative advantage is defined as the advantage that a country may have relative to countries that are close to it, either geographically, or in other ways, that reduces the costs of trade (Deardorff, 2014). Wright and Czelusta (2004, p. 11), assert that abundant mineral resources cannot be equated to having a comparative advantage. They posit that according to the elementary theory of international trade, comparative advantage is something that is found in every country, albeit in different levels. Compared to Western nations, the African continent has many mineral resources, which could catapult the continent to high levels of industrialisation if such an availability could be used as a comparative advantage. The extractive industries have

for long periods been synonymous with conflict among states, transnational corporations, communities, and labour unions since the early decades of the twentieth century (Canel, et al., 2010). Ross Harvey (2014) raises questions about how governments exploit abundant minerals in the short term, and how they prepare so as to diversify their economies in the long term, to realise tangible benefits from the resources beyond their depletion.

Morris, Kaplinsky, and Kaplan (2012), who cite the works of Raul Prebisch and Paul Singer (1950), present an analogy, which defines the difference between the export of manufactured goods and raw materials. Manufacturing is considered difficult to copy, and it is less dependent on commodities. That is, barriers to entry in manufacturing are relatively high. By contrast, entry into most primary commodity sectors is low. This development means that incomes in the commodities sector are subject to intense competitive pressures. In other words, although developing countries have abundant raw materials, they are likely to face inhibiting factors when they attempt to engage in the process of mineral beneficiation since manufacturing is not one of their comparative advantages.

The challenge for African countries is how to replicate developments in the United States of America (USA), Canada, Sweden, Norway, and Australia, where the growth of the commodities and manufacturing sectors was interrelated. Hausmann and Klinger (2007) raise pertinent challenges regarding abundant natural resources as a comparative advantage for mineral-rich countries. These relate to the determinants of a country's comparative advantage across products, and the effects of initial specialisation on future evolution. Developing countries, and Africa in particular, began with exporting raw materials, and subsequently embarked on processes of beneficiating the abundant mineral resources. A challenge experienced by African governments was prioritising the export of raw materials as opposed to beneficiating them. The literature consulted in this study, has detailed how the African continent prioritised the exportation of mineral resources to the neglect of beneficiation and skills development. In the long run, this affected the continent's comparative advantage.

Baxter (2005) suggests that the possession of abundant mineral resources does not bequeath any comparative advantage to that particular country. He further asserts that countries that do well in production, craftsmanship, jewelry fabrication and the

production of catalytic converters have a competitive advantage. Invariably, access to large domestic markets enables countries to excel on the fabrication side (Baxter, 2005, p. 27).

Similarly, Moghalu (2013) posits that for African countries to be competitive, create jobs, and improve the living standards of their peoples, they need to diversify their economies. This can be achieved by transforming economies towards manufacturing, and by adding value to natural resources. In his book *Emerging Africa, How the Global Economy's 'Last Frontier' Can Prosper and Matter* (2013), he advocates for a paradigm shift in the conditions necessary for economic transformation. This shift requires that African countries come to accept the realities that transformative economic growth is dependent on developing complex products and the export sector. Thus, manufacturing products are a critical vehicle for wealth creation, because they have more value in them. Such products also have to be created in a competitive manner related to content, costs, and specialisation (Moghalu, 2013).

Lin and Chang's (2009) analysis of comparative advantage advocates for the involvement of governments to encourage the emergence of firms, industries, and sectors that will make effective use of a country's comparative advantage. Thus, for developing countries, this would mean a focus on labour and resource-intensive production activities. Africa's comparative advantage lies in its abundant natural resources as well as its human capital labour. In the case of South Africa, Roger Baxter (2005), identifies the production of catalytic converters as a typical example of comparative advantage to show how beneficiation can be achieved. Such processes also have links to the Motor Industry Development Plan sponsored by the government (Baxter, 2005). Botswana is also cited as an example of a country that used available diamonds to the country's comparative advantage. De Beers Chief Executive, Andrew Bone, refers to the move of diamond processing from London to Gaborone, and he notes the long-term investment made in Botswana in the beneficiation of its abundant diamond resources. Botswana formed a partnership with De Beers to ensure constant availability and supply of diamonds for local manufacture and continuous beneficiation of diamonds locally. As a result, the country started its own large and sophisticated rough diamond sorting and valuing facility (De Beers, 2015, p. 12).

These examples are consistent with the findings of Hausmann and Klinger (2007). They note that the emergence of comparative advantage in a country is linked to what is called the patterns of relatedness, in which countries advance in comparative advantage especially in goods that are readily available. That is, the existence of products in areas conferred with comparative advantage determines whether a country develops an advantage in such products in the future. Baxter (2005), refers to both the economic developments in South Africa and Botswana as a competitive advantage which relates to competitive production, craftsmanship and the specific skills that are required for jewellery fabrication, the production of catalytic converters, or access to markets.

Lin and Chang (2009, pp. 487-488), assert that if a country's strategy defies comparative advantage, it will generally be unable to encourage competition because non-viable firms will need to be protected. Thus, the positive effect of comparative advantage to countries, is that it reduces the heavy reliance on domestic markets. This is because the local industries and firms have become globally competitive.

In contrast, countries such as Ghana, the Democratic Republic of Congo (DRC), Zimbabwe, and Zambia are unable to take advantage of the abundant mineral resources to satisfy the concept of comparative advantage. For example, in respect of mineral resources investment, the DRC is ranked at the bottom of the index, even though it is considered one of the most resource-rich countries in the world (Poplak, 2012, p. 13). That is, the DRC is unable to realise its mineral potential and use it as a comparative advantage for economic development. Another example is Zambia. The mining industry is the highest export earner at 80%, however, it contributes a disappointing 2% into the government's annual revenue. (Conway, 2012, p. 17). This confirms the notion that many resource-rich African countries make poor use of their wealth and are unable to upscale the comparative advantage that they have.

Austin (2010) argues that the underdeveloped status of Africa is as a result of conditionalities placed on the continent by the colonial masters. He asserts that the developmental choices that colonialism introduced determined post-colonial ones (Austin, 2010, p. 2). The inability of the continent to leverage mineral resources and employ them as a comparative advantage is due to the legacy of domination by Western nations. The Western nations conquered and dominated the continent only

to introduce institutions designed to extract and export raw materials to their native countries. Austin further posits that Europeans had access to cheap land and labour, and monopolised the services sector. This impacted on the development of the skills base of Africans to be knowledgeable about mineral resources as well as to use them to their comparative advantage.

Rodney (1973) highlights that Africa's contact with European nations altered their development trajectory. The lack of or low levels of comparative advantage in the minerals sector exposes the impact of the law of uneven development of societies favoured by colonialists (Rodney, 1973, p. 1). Rodney's assertion is that uneven societies created an elitist class in which African manufacturing skills were overlooked in favour of Europeans. Most of the manufacturing in Africa was by hand whilst that of Europeans was by machines and in factories. Thus, colonialism forced Africans to lose their natural capacity to manufacture (Rodney, 1973, pp. 16-17). This has to some considerable extent impacted on the ability of Africans to use their skills to leverage on abundant mineral resources to gain comparative advantage over other countries.

Ocheni and Nwankwo (2012) criticise colonialism for Africa's loss of its comparative advantage asserting that colonial education was a misfit to African developmental experiences. They highlight that the colonial education system lacked the technological base necessary for industrial development. They further posit that colonialism distorted African economic development, in particular, by channelling the continent to mainly facilitate the processing of raw materials for export (Ocheni & Nwankwo, 2012, p. 51). Although colonialism occurred many years ago, it has left an indelible mark characterised by the underdevelopment of the continent. Africa's current challenges are partly placed at its door due to the structural marginalisation experienced under the administration of the economy, education and other structures.

3.6 Mineral resource beneficiation and International Relations

Debates for or against mineral beneficiation demonstrate the role played by mineral resources in the conduct of international relations. That is, the advocacy by African leaders, authors and policymakers to beneficiate in the local setting highlights the importance of diplomacy in African development. Hill (1975, p. 3) notes that there is a relationship between mineral resources and international politics. He refers to this as resource diplomacy. This is connected to the policy options being suggested by

African scholars and policy makers aimed at encouraging dialogue between African governments and multinational companies. Such a dialogue on mineral resources brings two foreign entities together to discuss the role of mineral beneficiation in the continent. African scholars and policymakers employ mineral beneficiation to place the continent in the diplomatic thought of Western nations. This assertion is emphasised by de Ridder (2013) who notes that Diplomacy is a key vehicle for making such pronouncements. He also says that in 2001, the European Commission published a new strategy on raw materials which emphasises resource diplomacy as a critical factor (de Ridder, 2013, p. 14). In this strategy, Bello (2015) says that the EU specifies that in order to encourage an impartial and sustainable supply of raw materials from global markets, it will "actively pursue a raw material diplomacy" with the aim of ensuring access to raw materials, in particular, critical ones, through strategic partnerships and policy dialogues. This dovetails with the approaches proposed by African scholars and policymakers for extractive resource governance in the continent. They highlight the importance of establishing intra-African and broader global dialogues in leveraging the extractive sector. They further encourage a balanced and inclusive dialogue for the transformation of the extractive sector (Bello, 2015).

Thus, African scholars and policymakers have come to realise that beneficiating mineral resources is a critical foreign policy consideration for other nations. This is supported by Alden and Alves's (2009, p. 4) study which posits that China's energy needs, in this century, played a progressively important part in the making of its foreign policy. In just over a few years, China left from being the main Asian oil exporter to being the second major world buyer in 2003, and the third largest global importer in 2004. This is the reason behind the prioritisation of energy security as a critical component of Beijing's foreign policy formulation (Alden & Alves, 2009). According to Hill (1975) countries owning and controlling mineral resources are in a stronger position to exert influence over those that depend on their resources. He therefore posits that the reassessment of the role of raw materials in international politics seems an obvious and significant task (Hill, 1975, p. 18). Similarly, Curtis highlights that the current period of the British scramble for Africa is an extension of British foreign policy goals since 1945. He asserts that just as in the previous period, in the current period, access to raw materials, has been a major determining factor in British foreign policy in Africa (Curtis, 2016, p. 11). This further highlights the extent to which governments

from mainly rich countries prioritise access to mineral resources as an integral part of their foreign policy.

Natural resources are regarded as finite world-wide. Russia, with its own mineral base dwindling, embarked on a process to access minerals from Africa. This was executed through the establishment of the Coordination Committee on Economic Cooperation with African countries (AFROCOM) in 2009, which manages Moscow's resource diplomacy to access strategic minerals from the continent (Pham, 2014). The strategy for Russian involvement in Africa, is an international relations strategy, and diplomatic leverage used by Russia to remain one of the world's exporters of minerals, and to maintain Europe's dependence on its natural resources (Olivier & Suchkov, 2015, p. 152). This is an indication that access to mineral resources in the continent, has become a foreign policy imperative for Russia, and defines the way it manages its international relations with other governments. Johnston (2013) highlights that Japan recognised the importance of Africa's resources to its energy needs and industrial policies. He notes that, for Tokyo, the securing of minerals such as natural gas and rare-earth minerals, is a diplomatic priority. As a strategic vehicle, Japan announced an initiative to provide financial assistance to its firms investing in African rare-earth mineral mining, and oil and gas development (Johnston, 2013). This shows that Tokyo uses its foreign policy to lead and support its domestic industries in their international quest to access minerals in Africa. That is, Japan recognises the importance of international relations as a vehicle to secure its domestic needs, particularly its access to overseas mineral resources.

The high interest in Africa's minerals has altered the conduct of international relations, whereby countries that converge on the continent to access raw materials have to develop relationships to manage their involvement in the continent. Wiesenbach (2009) notes that the emergence of China's strategic interest in the continent's mineral resources, has affected the European Union (EU) – Africa and EU – China partnerships. The EU and China, noting their interest in Africa's minerals, developed common objectives relating to fighting poverty, promoting economic growth and urging the international community to respect their commitments to Africa (Wiesenbach, 2009). This indicates that mineral resources, accord Africa a comparative advantage which could be used (coupled with diplomacy), to demand that mineral beneficiation should take place in the continent. The demand for Africa's natural resources, which

forces foreign governments to cooperate in the continent, can be leveraged diplomatically by African governments to also include mineral beneficiation policies in such cooperation. Access to mineral resources in Africa, reflects a heightened competition by foreign governments, which has a direct impact on their international relations. Johnston (2013) notes that Zimbabwe has become a competition field for Japan and China. Both Tokyo and Beijing are competing to secure mining contracts to extract coal deposits from the country. To support its resource diplomacy initiatives, Japan uses the Tokyo International Conference on African Development (TICAD), which was established in 1993, while China uses the FOCAC established in 2000 (Johnston, 2013). This indicates the extent to which foreign governments will employ international relations to provide resource security for their citizens.

3.6.1 Mineral beneficiation and concepts defining Africa

Debates on where mineral beneficiation should take place, highlights the attempts by African scholars and policymakers, to present African history of development from their own perspective. Benabdallah (2017) argues that the main challenge associated with typical Western IR theories is that they are not commonly understood as mainstream. The concepts used to explain them do not clearly reflect or mirror the reality in many states in the Global South. Furthermore, certain questions that are central to Global South perspectives are absent or under-theorised in mainstream IR scholarship. Proponents of dependency theory attempt to provide a lens to extricate Africa from a long history of dependency on Western developed countries. Modernisation theory as an approach has proven that it is unable to adapt to the prevailing developmental circumstances in Africa. Its failure is attributed to its inability to theorise in a pluralistic sense. That is, it does not integrate the many development stages of the continent into its theorising. The pluralistic nature of the continent calls for the development of perspectives which are relevant to the many and divergent African conditions. Thus, delinking from the tenets of modernisation requires that scholars, authors, and policymakers of African descent remove concepts undermining the continent. Such concepts relate to 'the dark continent', 'marginalised', and 'underdeveloped' which have historically defined Africa's status in the world.

Taylor says that delinking is not a call for autarky, or for raising protective walls to avoid engaging with the rest of the world. It is considered a process to prioritise the social, economic and political needs of each country. This is done by guiding

investment, and attempting to control the activities of foreign investors, and their engagements, in a way that benefits society as a whole (Taylor, 2017, p. 81). That is, the narrative has to move out of the static categorisation of states wherein Europe is classified as developed and Africa as developing. Dependency theory ought to be understood by classifying all actors as playing different roles at different points of time depending upon with whom they are interacting (Cowaloosur, 2017, p. 94).

The historical dominance of the Global North, which is prevalent in the tenets of modernisation theory, will no longer be useful, if proponents of mineral beneficiation can become more persuasive in advancing reasons for wanting to write their own narrative. Dependency theory has demonstrated how the relationships of dominance have relegated the continent to the bottom end of development. Thus, the dialogue of dominance must be replaced by a dialogue of partnerships. This relates to a situation where African leaders, scholars and policymakers provide the narrative for the continent's engagement with the rest of the world. The modus operandi of this engagement can employ diplomatic dialogue since mineral resources are critical to foreign policy choices of African governments. Africa could use diplomacy to revisit unfair trade treaties and rules set out by international bodies. Diplomacy could be a viable negotiating tool and a type of bargaining power with foreign governments and trans-national companies.

3.6.2 Mineral beneficiation and diplomacy

Africa is endowed with minerals, but it lacks the technology and infrastructure to beneficiate. The continent could employ diplomacy as a negotiating tool in forums such as the Forum on China Africa Cooperation (FOCAC) and BRICS Summits to move forward with beneficiating mineral resources. It is common knowledge that China has a huge appetite for Africa's mineral resources, for its development. Hence it is imperative for Africa's governments to enter into economic diplomacy discussions on how the extraction of mineral resources could result in mutually beneficial interactions. Thus, economic diplomacy can be an important contributor to efforts by African governments to advance mineral beneficiation towards the path of sustainable development. This also places the state as the custodian of foreign policy and shifts mineral resources to the forefront of diplomatic debates and negotiations, on the beneficiation of minerals in the continent.

To rid the continent of its dependency syndrome, the state must be the main actor determining the geopolitics of mineral resources. It is the African government that has to respond to the primacy of resource mercantilism in the resource and energy diplomacy strategies of developed countries. Resource mercantilism refers to the use of state-driven policies, and or strategies by a resource dependent state, to enable its firms to source a stable supply of resources outside its borders (Manatsha, 2018, p. 2).

De Ridder (2013, p. 13) argues that China's foreign policy, and economic diplomacy, are characterised by a practical approach. Based on its policy to observe the principle of non-interference and its "no political strings attached" development assistance policy, China is viewed as an attractive economic and political partner for many resource-rich developing countries. In return for favourable terms of trade, aid and investment, China's state-owned enterprises secured access to large mineral reserves in the developing world, particularly in Africa. This reflects how China uses foreign policy to negotiate terms in order to have access to abundant mineral resources in the continent. It is this feature of foreign policy, which African governments have to adopt, in order to achieve a balanced outcome in the exploitation of their mineral resources. That is, the increased demand by China for Africa's minerals should be seen as the opportunity for the continent to use diplomacy to secure the beneficiation of minerals. This has the potential to reduce Africa's dependence, on mostly Western nations, to beneficiate its mineral resources.

Mineral beneficiation in Africa raises issues pertaining to geopolitical competition and engagement. Zimbabwe in its re-engagement with the West proclaims that the country will employ diamonds as a foreign policy tool. Zimbabwe wants abundant natural resources to lend depth and opportunity to the country's diplomacy and foreign policy goals (The Herald, 2018). The call to beneficiate mineral resources in the continent represents the assertion by Africa's scholars and policymakers for self-sufficiency and reduced dependence on developed countries, in order to compete, and guarantee the supply of raw materials on their own terms. Thus, to reverse dependency, African governments must establish diplomatic relations with the nations that require what they have. That is, abundant mineral resources in a processed form. Mining in Africa is one of Canada's most important business, with over \$30 billion in Canadian investment, and it has become an important aspect of Canadian diplomacy in the

continent. Canadian ambassadors and mid-ranking diplomats are a regular feature at African mining conferences, and Canada deployed its foreign-aid resources to strengthen their companies' relations with Africa (York, 2013). Canada provides an example of how far countries will go to access mineral resources in the continent utilising diplomacy as their tool of engagement.

Debates on mineral beneficiation discussed under dependency theory reflect a heightened competition for Africa's mineral resources. This is reflected by a change in the Africa foreign policy of Western countries including newcomers such as China and Russia. Their initial stages of interacting with Africa were mostly ideologically and militarily driven. The contemporary engagement is motivated by access to and dependency on mineral resources, so that they are driven by a new diplomatic tactic of managing natural resources.

To satisfy its dependence on natural resources, China developed a 'Going Out' strategy as a foreign policy tool to access Africa's rich energy reserves, minerals and raw materials, so as to boost its domestic economic growth. China cultivated and supported its strategy through the creation of cordial diplomatic relations with African states. Such relations were mostly described as friendly (Sun, 2014, p. 6). It is this friendly diplomatic relationship that exacerbates Africa's dependence as well as its inability to beneficiate its mineral resources. China's policy is to use financing strategies which are linked to resources as a way to conclude agreements with resource-rich countries to secure low-interest loans from China. In 2008, the China Railway Group used the same model to secure the mining rights to the Democratic Republic of the Congo's (DRC) copper and cobalt mines under the slogan "Infrastructure projects for resources" (Sun, 2014, p. 8). Similarly, it could be argued that successive Australian governments have not had a well-defined policy on Africa. However, Australia's relations with Africa, have advanced in recent years. The majority of Australian investment in Africa are mostly in mining. Africa is the single biggest market for Australian Mining, Equipment, Technology and Services (METS) companies outside of Australia. The interest in Africa's mineral resources presents an opportunity for the continent to address issues of dependency by also employing the art of diplomacy as a foreign policy tool. That is, Australia has placed diplomacy at the heart of its international engagement, which draws from foreign policy, trade and development activities, and diplomatic resources (Satchwell & Redden, 2016, p. 1&4).

3.7 Conclusion

This chapter examined the debates by various leaders, scholars, and policymakers on how important mineral resources are in the economic development of the African continent. Their debates centre on whether the continent should be the location where mineral beneficiation should take place. The debates highlighted divergent opinions on whether African governments should embark on processes of mineral beneficiation as an approach to economic growth and skills development. Integral to the analysis of the phenomenon were aspects relating to policy frameworks on mineral beneficiation, the resource curse, a shift from dependency to mineral beneficiation, the use of available minerals as a comparative advantage and mineral resource beneficiation and international relations. The literature consulted showed that African leaders, authors, and policymakers for or against mineral beneficiation in the continent have been influenced by their different experiences with development. Thus, issues of African development, and in this case, Africa, as the location where mineral beneficiation should take place, were analysed and interpreted from different vantage points.

This chapter highlighted that the world has experienced several industrial revolutions, whereby the African continent is still in the first and second industrial phases. It further alluded to the fact that most of the world has experienced and participated in the 3rd industrial revolution and is now preparing to welcome the fourth industrial revolution. These developments and debates have compelled the continent to want to develop and define their development trajectory. For long periods, exports of raw materials from the continent have helped propel the economies of Western nations. According to Cardoso (1977) this has politically reinforced colonial links and the perpetual marginalisation of Africa. Therefore, the debates as to whether Africa should be the location to beneficiate its minerals, reflects the yearning by African leaders to take ownership of the process of modernisation and direct the speed of development that suits their prevailing circumstances.

This chapter argued that reference to new forms of dependency theory gives rise to issues relating to neo-colonialism or the new scramble for Africa's natural resources, and how African leaders have to respond to it. It is suggested that the AU should advance a clear, united and all-inclusive policy dealing with competition over its natural resources and engage diplomatically with interested parties to cooperate with Africa

instead of exploiting it. Of critical importance, the people of the continent should have a major say in Africa's cooperation with the world. Africa could be facing a new scramble for its resources; however, its citizens should derive benefits from the high interest of developed nations in their countries. The US, Russia and China - and any other foreign nation - should only be allowed to operate in Africa as long as their actions are also beneficial for the continent. (Ahmed H Adam, 27 March 2018). The idea of beneficiating minerals in the local setting represents an awareness by African scholars and policymakers of the re-emerging trend of recolonising the continent. This highlights the continent's resolve for why Africa should call for natural resources to be beneficiated locally.

CHAPTER 4: FINDINGS, ANALYSIS AND CONCLUSION OF THE STUDY

4.1 Introduction

This chapter presents and discusses the findings arising from the literature review. The findings are grouped to reflect the sub-headings presented in chapter 3. The section is then followed by a discussion and analysis.

4.1.2 Findings on the theoretical frameworks of the study

This section presents an account of the findings as they emerged from the theoretical frameworks employed by the study. The study showed that there is a continuing debate on whether African governments should benefit their abundant mineral resources. The study illustrated two spectrums of the debates reflected by scholars and policymakers from developed and developing countries, through the use of both modernisation and dependency theories.

4.1.3 Findings on modernisation and dependency theories

The study showed that debates on how the continent should develop have been argued for several decades, dating back to the 1950s. Such debates have resulted from the uneven development, where Western nations continued to develop while Third World countries continued to be underdeveloped. The debates were illustrated through the use of modernisation and dependency theories. The findings confirm that debates on mineral beneficiation are of a socio-economic and political nature. This is reflected by the low economic growth resulting in the inability of African countries to provide jobs and skills development to their citizens. The study revealed that the socio-economic and political nature of the debates attracted interest from both public and private policymakers, each suggesting how mineral resources could be benefited in Africa.

The research pointed to the geographic divide of these debates. Modernisation theory is often employed by developed nations, and dependency theory represents underdeveloped nations. This geographic divide has influenced the narrative, and nature of theorising around mineral beneficiation. The origins of the arguments pertaining to Africa benefiting its mineral resources were traced back to two different locations, represented by developed (modernisation) and underdeveloped (dependency) nations. The study found that scholars and policymakers who argue

against mineral beneficiation in Africa, represented the continuation of the narrative of underdevelopment. Conversely, the study finds that scholars and policymakers in favour of mineral beneficiation, in an African setting, represent a movement for change. The theoretical frameworks of modernisation and dependency were found to have been relevant to the thought structure of scholars and policymakers who are respectively arguing for or against mineral beneficiation in Africa.

Although the study demonstrated that both modernisation and dependency theories were relevant for helping explain African development, its findings are that they were largely developed for (and by) scholars based in developed and Latin America countries. The study's findings on the matter are that there is an emerging narrative mainly by African scholars articulating African development from their own perspective. Thus, the study finds that African scholars and policymakers criticised Western nations for explaining African development from their own subjective conceptualisations and influences.

The findings suggest that this can be equated with the dominance over Africa by Western beliefs of cultural dominance, which have been perpetuated by colonialism, imperialism, and industrialisation. The research found that the dominion over Africa by Western nations affected the cognitive and interpretive skills of International Relations, cultural ideals, and norms. This development has compelled African scholars and policymakers to advocate for a development trajectory that is not influenced by Western nations or theories.

The study confirmed that African scholars and policymakers consider the control of politics and the economy to be critical to their relations with the rest of the world. It showed that African scholars and policymakers are advocating for knowledge dependence to be broken, so as to develop epistemologies based in Africa. Knowledge dependence is viewed as an obstacle to the true African sense of independence; self-determination and self-sufficiency. African scholars and policymakers viewed knowledge dependence as affecting African ontological capacities. Their advocacy aims to replace the West as the epistemic locale from which the continent can be described and understood. The findings of the study identified mineral resource beneficiation as important in the conduct of international relations. Debates on mineral beneficiation show the key role played by diplomacy in

African development. Thus, mineral beneficiation is not only an economic concept but also a critical foreign policy consideration. Access to mineral resources was illustrated as a foreign policy consideration for countries such as Australia, Britain, Canada, and China.

4.1.4 Conclusion

The findings indicate that the debate can neither support nor dispel arguments as to whether mineral beneficiation is a panacea for sustainable economic growth and skills development in Africa. The results point to a continuing debate on the phenomenon, given the unchanging status quo, in which Africa is expected to develop along the dictates of developed countries. The study has further pointed to a situation where Africa continues to be the main exporter of raw materials to developed countries. The study found that debates on where and why African governments should beneficiate their abundant mineral resources will continue to be an evolving area of discussion.

4.2.1 Findings on African policies on mineral beneficiation

The findings of the study illustrated that African scholars and policymakers are developing policies to address the challenges of underdevelopment and low growth on the continent. The study referred to continental economic programmes such as the Lagos Plan of Action; the Abuja Treaty; and the New Partnership for Africa's Development. The study indicated that such programmes identified mineral resources as a catalyst for the socio-economic development of the continent. The policies advocate for institution building and skills development to take advantage of the continent's abundant mineral resources. The findings also indicated that mineral resources were identified by African leaders as a vehicle for the sustainable development of the continent. The study showed that such leaders used high-level platforms such as Summits of Heads of State and Government to express their support for continental development policies based on mineral beneficiation.

The study demonstrated that African scholars and policymakers identified mineral beneficiation as a tool to drive the industrialisation and structural transformation of the continent. The study revealed the African Mining Vision (AMV) as one of the blueprints for transforming the mining sector through increased value addition. The findings of the study therefore indicate that adding value to minerals creates long-term

opportunities for economic growth and skills acquisition. The findings of the study reveal that regional and continental cooperation is critical for the exploitation of mineral resources for the benefit of the continent.

4.2.2 Findings on policies against mineral beneficiation in Africa

The findings of the study suggest that continental initiatives have been countered by Western initiated programmes, such as the World Bank's Accelerated Development in Africa: An Agenda for Africa, report. The report identified inadequate domestic policies and administrative constraints as reasons for the economic weaknesses of the continent. The study showed that criticisms of the continent's development policies was mostly levelled by mining industry leaders. The mining industry leaders placed high costs as an obstacle to beneficiating minerals by African governments. They further pointed to low levels of industrialisation, inadequate infrastructure, and inefficient labour productivity as reasons to discourage mineral beneficiation in the continent.

4.2.3 Findings on the resource curse

The findings of the study indicated that the abundant mineral resources were considered a curse to the continent by scholars and policymakers from developed countries. The study revealed that the continent is considered cursed because it is unable to use its rich mineral resources to improve its economic growth and skills base. Thus, the study showed that high mineral rents perpetuated underdevelopment, unskilled labour, corruption, and political instabilities. The findings of the study indicated that excessive rent-seeking results in low levels of mineral beneficiation in the continent. The study has shown that the lack of mineral beneficiation and high mineral rents were credited for propelling Western nations to greater economic heights. Therefore, the study indicated that high mineral rents prevent African economies from innovating and up-skilling their workers.

4.2.4 Findings on beneficiating at a local setting

The findings of the study indicate that Africa is awash with various kinds of mineral resources, yet still remains the world's poorest continent. The study showed that there is a high level of dependence by the continent on the extraction and export of mineral resources. This has had an impact on the sustainability of growth. Scholars and

policymakers viewed the high dependence on mineral export as one of the reasons for why Africa is unable to beneficiate its minerals. As a mitigating factor, the study indicated that locals should be employed and trained on how to beneficiate their minerals. The study clarified that this could be achieved if multinational companies could support forward linkage-based policies in the mining sector. This refers to the promotion of the beneficiation of raw materials in downstream sectors and encouraging value addition.

The findings of the study indicate that engaging in mineral beneficiation has benefits, such as improving the socio-economic landscape; infrastructure development; employment opportunities and the diversification of African economies. The study revealed that mineral beneficiation can be considered to be an industrialisation and trade policy tool for African governments. The study has indicated that scholars and policymakers consider processed minerals to have greater value than raw materials. In this respect, the study showed that mineral beneficiation is important to both the economic and political aspects that African governments should be concerned with. Economically countries will experience broader growth, while politically they will prevent the exploitation of the mineral resources of the continent.

4.2.5 Findings on comparative advantage

The findings of the study clarify that Africa has abundant minerals. This accords the continent an advantage over countries without resources. The study showed that the continent has a comparative advantage to grow economies over those without mineral resources. The study indicated however, that although the continent is rich in mineral resources, which gives it a comparative advantage, it lacks comparative advantage in manufacturing. The lack of comparative advantage in manufacturing affects the process of mineral beneficiation. It is therefore suggested that in order for the continent to harness its comparative advantage in mineral resources, it needs to create a balance in the growth of commodities and manufacturing sectors. That is, abundant mineral resources will confer comparative advantage if the continent did not prioritise the export of raw materials over beneficiation and skills development. Hence, the findings of the study indicate that the comparative advantage of the continent lies in its natural resources and human capital labour.

4.2.6 Findings on International Relations and mineral beneficiation

The study revealed that International Relations (IR) is critical to the management of mineral resources in the continent. The role of IR was reflected by its ability to encourage dialogue between African governments and multinational companies to discuss mineral beneficiation in the continent. The study showed that resource diplomacy emerged as a policy imperative to access mineral resources in the continent. The findings of the study showed that Western nations have prioritised resource diplomacy and have integrated it into their foreign policy strategies to actively pursue access to raw materials in Africa. This confirmed that African governments can use diplomacy to leverage the extractive sector to the benefit of its citizens.

4.2.7 Conclusion

In this section, an account of the findings of the study were presented as they emerged from the literature reviewed. The findings arising from themes identified in the literature reviewed were illuminated and this relates to policies on mineral beneficiation, the resource curse, beneficiating at local setting and comparative advantage.

4.3. Analysis of the study

To allow for analysis, the researcher organised documents and literature into themes relevant to the study. The themes were categorised to demonstrate past and current debates by various scholars and policymakers arguing for or against mineral beneficiation in Africa. Each category was formulated to provide answers to the study's inquiry articulated through the objectives. The first was to explore scholarly arguments as to why there are paradigm shifts away from commodity export dependency to beneficiate minerals locally by African governments. This was investigated through the review of scholarly and policy-making documents with respect to mineral beneficiation. Secondly, the research explored scholarly arguments as to whether mineral beneficiation could facilitate Africa's economic diversification and productive capacity. To find answers, the study reviewed policy debates on mineral beneficiation; the resource curse and moving from dependency to local mineral beneficiation. Third, the study explored scholarly arguments as to whether the beneficiation of resource-based comparative advantage can be transformed into a national competitive advantage. This was addressed through reviewing the literature on comparative advantage. Fourth, the study explored scholarly debates as to whether the economic advances of

industrialised countries could serve as a perfect reference for developing countries. In this respect, the study reviewed literature on modernisation and dependency theories.

The researcher established that the debates regarding Africa as the place to beneficiate minerals have been ongoing for several decades. Furthermore, the literature clarified that issues of how Africa should develop had elicited interest from various quarters. Such an interest was of a socio-economic and political nature noting the narrative that Africa is endowed with abundant minerals, yet it remains so poor. The researcher used a literature review to find out what arguments researchers, think-tanks, scholars and policymakers have on the stagnant nature of African development. Their views were presented as debates, and authors were divided into two camps, to ascertain the extent to which their views influenced the narrative on African development. The researcher found that the debates were intense with scholars and policymakers from both camps debating in support of their respective arguments for or against mineral beneficiation in Africa. However, the literature reviewed demonstrated that the earliest arguments on African development were led by scholars and policymakers from developed countries. It is in this respect that policies on African development were formulated and largely influenced by the experiences and viewpoints from scholars coming from developed nations.

4.4 Modernisation theory interrogated

This section of the chapter interrogates modernisation theory as a lens from which to understand African development. It identifies the gaps in modernisation theory and its misfit when applied to African development.

Based on the literature reviewed, the researcher found that African scholars and policymakers articulated alternative lenses from which African development could be understood. The literature revealed that African scholars and policymakers argued in support of mineral beneficiation in response to the characteristics of the transformation agenda brought about by modernisation theory. Their policy articulation highlighted the urge to control the processes of mineral beneficiation in the continent. It also reflected their interrogation of the tenets of modernisation theory which suggests that since Western nations became modern, the continent will also become modern. This also highlights African scholars and policy maker's realisation that Western nations dictated the narrative of their own development which became a misfit when

transplanted to the continent. Reyes (2001) emphasises African leader' aspirations to champion their own development by asserting that the term development is tantamount to a social condition in a country in which the natural resources are key to satisfying the general needs of the population (Reyes, 2001).

The resurgent debates on mineral beneficiation by African scholars and policymakers can be likened to the study by Acharya and Buzan (2007) who explained the development of International Relations Theory. In acknowledging the existence of International Relations Theory, they assert that nearly all of its literature is a product of Western nations. They further argue that this situation creates an assumption that Western history alone represents events that happened worldwide. Hence, they question the non-existence of Third World International Relations Theory. Similarly, debates on mineral beneficiation in Africa could be explained as questioning why there is no non-Western development theory.

In the views of African scholars and policymakers, mineral beneficiation represents an aspiration to participate in innovation processes for the economic and political transformation of the continent. This is contrary to modernisation theory which says that innovation assumes a central stage whenever issues relating to change are discussed. Such notions reject any reference to traditional institutions and advocate for the adoption of new ideas, techniques, values, and organisations emanating from Western nations. Advocacy by African scholars and policymakers to beneficiate minerals in the continent challenge the idea that modern nations are the point of reference for development. Valenzuela and Valenzuela (1978) note in their paper that to study modernisation in non-Western areas, the political scientist needs to learn about modernisation theory in developing nations, and aspects related to the architecture of modernity, need to be considered. Furthermore, this must be supported by a proper empirical analysis of the functions of what is really modern as represented by developed countries (Valenzuela & Valenzuela, 1978, p. 538). Their assertion points to the need to conduct research on the developmental characteristics of Western nations as compared to underdeveloped nations. The knowledge gained from this process will help develop a clear understanding of what aspects of modernisation will suit the developmental needs of the continent. Thus, the need for an empirical and formal analysis of how Western nations modernised acknowledges the existence of different material conditions between developed and underdeveloped countries.

Tariq Banuri (1987) depicts the shortfalls when imposing a model on Africa, which is based on how Western nations developed. His views reveal the negative sentiments of authors and policymakers against mineral beneficiation in Africa. He asserts that even during times of high expectation, the efforts of the continent are viewed with much scepticism by the outside world, who assume that the continent would not achieve its endeavours (Banuri, 1987). His assertion points to the ensuing debates on where and why African governments should beneficiate their mineral resources. It reflects the opposing views by Western scholars against initiatives by African scholars to develop policies geared towards mineral beneficiation in the continent. Views against mineral beneficiation indicate that Western nations undermine the importance of institutional settings for subsequent economic growth and skills development in the continent. It further demonstrates their continued negative views and presumptions that the reform of the resource sector will not solve Africa's economic challenges.

The notion of why Africa is so rich in minerals and yet so poor resonates in Banuri's statement. This dispels the assumption by modernisation theory that traditional countries will eventually modernise. He points to the prevailing inequalities in development; the continuing sea of poverty in the midst of natural wealth; increased unemployment rates (even though production levels are high) and the obvious inability to alleviate the material conditions of poor people in Africa and Asia (Banuri, 1987, p. 7). However, African scholars and policymakers question the continuing underdevelopment of the continent amid the mineral riches it possesses.

The need to beneficiate minerals reflects the disillusionment, and a loss of hope, which African countries have in the programmes sponsored by Western nations purported to be able to alleviate poverty levels. The rise of African voices in support of mineral beneficiation, challenges the long-held view, undermining the imagination of Third World intellectuals. This notion is supported by Tariq Banuri (1987, p. 11) who states that the writing on modernisation theory had clear objectives which were explained as those grounded on teaching Third World countries how to emulate the West in the shortest time possible. Modernisation is also explained through development communication which represents a top-down influence by Western scholars. It exposes the way they apply their experience as a dictate to develop perspectives about the Third World.

Modernisation theory and debates by Western policymakers define the locus of enunciation of this theory. By discussing mineral beneficiation from a Western point of view, they are perceived to be deciphering a phenomenon consistent with their experiences and environment. By transmitting their modernisation beliefs to the continent and globally, reflects the domination mindset inherent in them. Their perception of having power over Africa creates a belief that their direct experiences can be implanted into an unfamiliar environment. Their insufficient familiarity about the continent, reflected in the misfit of modernisation, exposed their generalisation of global developments. This highlights their lack of appreciation that the world is multifaceted and cannot be treated in a similar manner. Peng (2014) provides a similar analogy by saying that modernisation theories reflected the views of American superiority and Western centralism attempting to spread American ideology from a subjective conceptualisation. In essence, he refers to subjective conceptualisation as the creation of theories about phenomena which are privileged and informed by personal experiences unrelated to the matter (Peng, 2014, p. 42).

According to Mazrui (1990) the origins of modernisation and the terms that define it, have become a preserve of Western nations which dictate as to who can participate in it. Based on a standard of participation, geography; race; education; language and beliefs, modernisation theory perpetuates the notion that the Third World is incapable of providing an alternative debate in respect of development (Mazrui, 1990). The Western illusion of arrogance illustrates the belief that no nation beyond a Western thought structure can provide adequate development theories. It is this assumption, which fuels the belief that the Third World and Africa, cannot be the bases of invention where logical arguments can give rise to new ideas, as well as provide different viewpoints on existing beliefs from a different locus of enunciation.

Mazrui (1990) notes that the manifestation of culture in International Relations is experienced through different ways which have been reinforced by developments such as colonialism; imperialism; Cold War; religion; race; industrialisation; modernisation and many other components (Mazrui, 1990). These elements, and particularly modernisation, have been used as a catalyst by dominant societies to advance their cultures in other countries. Modernisation represents such cultural dominance, by which Western nations, influence the processes of mineral extraction and where beneficiation takes place. Thus, power has been the key instrument employed by

politically and economically rich countries to dictate the terms of development in the Third World. The 'superiority' status of the structure has meant that cultural adaptation has been unidirectional and mostly forced on the countries of the Third World. That is, the stages of development as suggested by Rostow (1971) represent the development culture of Western nations imposed on the Third World. Western nations, through modernisation theory, expect African governments to be assimilated into their cultural ways of addressing development. Ali Mazrui refers to such disparities as situations where Europe use its culture and religion as conduits to access mines, land, labour, energy and other resources (Mazrui, 1990). Mazrui's statement links with the views held by African scholars and policymakers that Africa needs to change the ownership landscape to be able to control the means of production.

As a result, this kind of power domination affects the way in which the Third World understands International Relations. It forces the continent to adopt interpretive skills which are foreign to its local cultural ideals and norms. African scholars and policymakers thus posit that modernisation theory expects African governments to adopt and define their development based on the intellect of Western nations. Such expectations affect the way they interpret policies relating to mineral beneficiation, economic growth and skills development. The transmission of European and American beliefs to the Third World have become embedded in the thought structure of its people, as well as their understanding of how to explain the outside world. This notion is also supported by Bierschenk and Spies who note that the research conducted about the continent before and after the 1960's was the preserve of Western nations; and that African scholars were relegated to mere and unnamed assistants (Bierschenk & Spies, 2016, p. 6). Thus, the emerging policies by African scholars and policymakers for mineral beneficiation are an attempt to close the gap of the limited or non-existent African narrative on development.

Lerner (1958) says that by being exposed to western ways of development, especially through mass media, traditional societies would automatically transform to become modern. This notion ignored the economic conditions on the ground as well as what is required to move from underdeveloped to the status of developed countries. It further omitted to note that African peoples did not own the means of production. Thereby they had no control over how their nations should develop. It is this very essence that is responsible for the rising voices by African scholars and policymakers

who advocate for having control over mineral resources so that they can champion the economic development of the continent.

Debates in favour of mineral beneficiation in Africa lament the sustained transfer of raw materials to the Western nations for the latter's' continuous industrialisation drive, while restricting African countries to underdevelopment. Modernisation appeared to be an ideology crafted to perpetuate the influence of Western nations over Third World countries. It became a foreign policy tool to continue running the affairs of developing countries through economic and financial aid.

The debates to modernise were, in fact, a projection of the influences and thinking of Western policymakers who were motivated to entrench their economic and political dominance over Africa. This assertion is supported by Valenzuela and Valenzuela (1978) when they explain the development projects by Western nations to modernise the Third World. They assert that the manner in which traditional societies conduct themselves, is expressively the cause of underdevelopment and a key hindrance of modernisation. To ascend the developed status, as prescribed by modernisation, poor countries must outlive outdated norms and structures, opening the way for social, economic, and political transformations (Valenzuela & Valenzuela, 1978, p. 538). Third World development theory according to Escobar (1995, p. 31) reflects the dominant image shaped by Western nations which are motivated by their strategic considerations and access to Africa's raw materials. It is this long-held discourse that the narrative on mineral beneficiation in Africa attempts to alter.

4.5 Dependency theory revisited

Bierschenk and Spies (2016, p. 26) note that Africa's development trajectory is heavily dependent on the development of industrialised countries in Western Europe and North America. African scholars and policymakers argue for mineral beneficiation in the continent as a possible way for Africa to rid itself of the dependence on industrialised countries. Control over the politics and economy by Africans could alter dominant North-South relations and assist the continent in transitioning to new forms of South-South relations with players such as Brazil, China, and India. This assertion is supported by McGowan (1976) who highlights that dependency theory does not only attempt to explain the underdevelopment of African and Latin American countries but it also recommends actions such as policies of socialism and self-reliance to reduce

dependency, and thus overcome underdevelopment (McGowan, 1976, p. 27). Debates on where mineral beneficiation should take place epitomise the struggle by African scholars and policymakers to bring equilibrium to the politics and economy in the continent to effectively manage relations with the rest of the world.

Ndlovu-Gatsheni (2017) highlights the gaps in dependency theory analysis in respect of Africa's development. He points to the notion of de-imperialisation. He explains this as a situation in which countries are equal and the element of dictating to others what to do being non-existent. He proclaims that countries such as the USA still dictate how other countries should be governed. Epistemologically, he asserts that Africa will not break away from its epistemological bondage to Western countries if it does not initiate new thinking whose centres are in Africa (Ndlovu-Gatsheni, 2017, p. 40). Ndlovu-Gatsheni touches on the issue of knowledge which African governments lose by not engaging in mineral beneficiation in the continent. By not beneficiating minerals African governments are deprived of the potential to develop institutional knowledge which is essential to writing their own narrative on development. Engaging in mineral beneficiation has the potential to create opportunities for the continent to develop technical knowledge on minerals. The acquired knowledge could then be used to write a narrative on how to use mineral resources to spur African economies, and to create skills and required jobs.

Debates in favour of mineral beneficiation in the continent can also be said to be questioning the true sense of Africa's independence. Bierschenk and Spies assert that the question of independence must be a discursive one. They note that the issue of independence is where the main hindrance to Africa's development rests. They further posit that most of the terms and approaches in debates about the continent's developmental options have not been created by African scholars, but imposed from outside (Bierschenk & Spies, 2016, p. 29). Ndlovu-Gatsheni notes that it is imperative to reduce epistemological dependency, so that African scholars can produce knowledge that reflects African realities instead of using lenses drawn from the industrialised North in order to understand the Global South (Ndlovu-Gatsheni, 2017, p. 38). Thus, mineral beneficiation is one of the vehicles considered by African scholars and policymakers as an enabler to begin re-writing and producing new lenses from which African realities can be understood. This can be achieved if (in addition to broader economic development) African governments consolidate their understanding

of the mineral resource environment and its nuances. That is, the continent should develop its population to become experts in minerals so that they are able to explain their importance and to benefit from them.

Ndlovu-Gatsheni applies a decolonial lens and proclaims that the Western nations and their descendants were progressively consolidating their ontological concentration while Africans, and those of African descent in the Diaspora, were experiencing a deficit of their ontological weight. He explains decoloniality as born out of the realisation by Africans that the continent is not only sustained by the colonial powers, but also issues relating to learning and knowledge (Ndlovu-Gatsheni, 2013, pp. 11-12). Ndlovu-Gatsheni's assertion highlights that issues of development do not only involve economic emancipation but also speak to building a knowledge base on mineral resources.

In the same vein, dependency theory, as applied in this study, is likened to the decoloniality concept, in that it has advocated for a change in the geography of reason from the West as the epistemic location from which the world is defined and conceptualised. In this respect, the former colonial countries, consider it as a legitimate departure point when describing how the modern world system was constructed (Ndlovu-Gatsheni, 2013, p. 13). Engaging in mineral beneficiation, African governments could realise the benefits of turning the continent into centres of innovation where knowledge about African development emerges.

4.6 Conclusion

Dependency theory highlighted the persistent undermining of many facets of the continent such as knowledge development so as to be able to craft own theories of development. Mineral resources were revealed as embedded in the foreign policy of most developed countries in which diplomacy was employed as a catalyst for continued access. This highlighted the issue of reverse dependency in which both Africa and developed countries were found to be heavily dependent on mineral resources. It is this scenario which points to the importance of diplomacy as an important foreign policy tool to be used in debating whether mineral beneficiation should take place in Africa.

5. Conclusion

5.1 Summary of the study

This study conducted research inspired by the puzzle that Africa is rich in mineral resources, yet it is a continent synonymous with underdevelopment, low economic growth, and unskilled labour. This puzzle was reflected in the research topic, “Mineral Beneficiation: A continuing African paradox or a panacea for economic growth and skills development”. The aim of this study was to explore debates pertaining to the location where Africa should benefit its mineral resources. To develop a clear understanding of the study, a research question was formulated titled, ‘Would scholarly debates on mineral beneficiation in Africa dispel or support arguments whether mineral beneficiation is a panacea for sustainable economic growth and skills development in the African continent? To gather information on these opposing arguments, the research conducted a literature review to investigate arguments by scholars and policymakers on policies which have been developed regarding mineral beneficiation in Africa. The investigation also included a review of modernisation and dependency theories as lenses from which to understand African development. In this respect, the arguments by scholars and policymakers were structured to either confirm or dispel the central question of this study.

Chapter 1 of this study introduced the theme of the research by providing a background analysis of the aspects of mineral beneficiation in the continent. Furthermore, the chapter presented objectives of the study which were the guiding principles in conducting the research. The qualitative method was also presented as a vehicle used to conduct the research which employed a qualitative documentary analysis as a data collection method.

Chapter 2 highlighted the theoretical frameworks of the study based on modernisation and dependency theories. Both theoretical frameworks were employed as lenses from which African development could be understood. Modernisation theory was applied to reflect views by scholars and policymakers against mineral beneficiation in the continent. Their views were highlighted as supporting the status quo where Africa is expected to follow development stages as experienced by developed countries. While the dependency theory was employed to critique the tenets of modernisation theory

and to also support the arguments by scholars and policymakers in favour of mineral beneficiation in the continent.

Chapter 3 presented a literature review which outlined debates by authors, scholars, think-tanks, and policymakers both from government and private institutions. The literature reviewed provided a broader context which highlighted the state of debates regarding where and why Africa should benefit from its abundant mineral resources. The opposing views of scholars and policymakers were then employed to assess the extent to which the central question of the study could be confirmed or refuted. The chapter also addressed aspects of International Relations as they pertain to mineral beneficiation. The focus was also on diplomacy and foreign policy as catalysts for negotiations by African governments to discuss mineral beneficiation in the continent.

Chapter 4 presented the findings, analysis and conclusion of the study. The findings of the study were presented as they emerged from the literature reviewed. Analysis of the study focused on assessing the suitability of modernisation and dependency theories as theoretical lenses from which African development can be understood. The analysis presents both theories as relevant to explaining African development. However, the research highlights the need for an alternative framework from which issues of African development can be presented. Lastly, a conclusion was presented providing a summary of the study.

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