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The Resource Curse and Tertiary Education Sector in Angola

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DECLARATION

I, Vanessa Karina Pereira Carrilho, declare that this research article is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration in the Graduate School of Business Administration, University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Vanessa Karina Pereira Carrilho

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ABSTRACT

Resource Curse is a much-debated phenomenon that affects countries with natural resources wealth. Considering the contributions of past studies and accepting that Angola exhibits the malady, the present research seeks to understand how the problem had impacted the country's higher education.

The theoretical framework sought to understand the Resource Curse theory and its impacts on Education as well the background for the selection of study variables. Given the limitation of existing literature concerning tertiary education, a new conceptual framework was adopted to study the interconnection between variables. Similarly to most Resource Curse studies, a qualitative research method was embraced and data collection was done in two phases, sourcing primary data in the form of interviews and secondary data in form of documental analysis.

The study concludes that the Resource Curse had a negative effect on tertiary education, in which the association between Resource Curse and education variables resulted in four main clusters: colonialism, civil war and institutions, weak governance and weak economy, attesting that these dimensions had impacted the higher education quality. Evidence from the results show that in the period under study (2002-2019) weak governance played a crucial role in perpetuating the deleterious effect of the previous periods by widening the gap between those with and without access to socioeconomic opportunities and welfare, including educational prospects. Strong institutions, political will and better investments are required to meet the needs of the underfunded and neglected education system and boost the quality of the education being provided if economic development is to be achieved.

Keywords: Resource Curse, Education

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1 INTRODUCTION TO THE RESEARCH

1.1 Background and context

More generally, this research evaluates the correspondence between the Resource Curse and the higher education in Angola. This section introduces the research conceptualisation in Section 1.2, providing the research problem statement, the purpose of the research as well as the research questions. The delimitation and assumptions of the research study are in Section 1.3, while the significance of study is discussed in Section 1.4 and Section 1.5 provides a preface to the research report.

1.2 Research conceptualisation

1.2.1 The research problem statement

The effects of economic globalisation are discussed as having mutually positive and negative impact for societies. In the context of developing countries, two main aspects are pointed to support a nation's capacity to face the reality, namely, their natural wealth and their policy towards human capital. Emerging economies will either succeed or fail to take advantage from the abundance of natural resources and their increased extractable demand, depending on their ability to manage its natural wealth and invest in human capital (Marsland, 2011).

Economists and other researchers have accumulated a large amount of evidence that education is the most significant mechanism for any country to develop and prosper, as it increases workforces' productivity and thus increases their income, along with non-pecuniary benefits such as improved health and social status that in turn reduce the probability of societal problems that are harmful for economic development (Sahlberg, 2006; Marsland, 2011; Glewwe et al., 2011).

Kozma (2005) supplements this view with further clarification by explaining that knowledge unlike commodities have marginal distribution costs and can be used multiple times by several users without losing value, which in turn will feed economic production factor with compounding returns instead of diminishing earnings. In this regard,

investment in research and development and technological innovation will foster an economy of knowledge.

Some authors have argued through certain empirical examination that countries rich in natural resources, are among the poorest economic performers as they neglect the development of their human resources due to the blindness caused by their resource wealth, referring this condition as “Natural Resource Curse” (Basedau, 2005; Marsland, 2011).

Concerning to Sub-Saharan countries, a study conducted by Barrows (2018) alludes that more than a quarter of African nations with natural resources wealth do suffer from resource curse or present symptoms aligned with economic malady. Moreover, the study elucidates the African economies are negatively affected as they witness significant losses in productivity of other sectors as their overall contribution to GDP is marginal compared to countries that don’t have these inefficiencies.

Angola is one of Africa’s most resource-rich countries and the second largest African oil producer after Nigeria. The nation has significant reserves of other natural resources (diamonds, natural gas, iron, gold, uranium) as well as land availability, important biodiversity and forests, and tourism potential. The country witnessed an economic boom after the end of the civil war in 2002, making it the third-largest economy in Sub-Saharan Africa. Despite considerable actions and frameworks that were developed in order to introduce reforms and improve the education system and its outcomes, it is notable that almost 20 years after, Angola's social situation remains very precarious, with education policies not achieving the objectives envisaged. Social indicators of development have shown utterly slow progress over the period, with low education levels, leading to worse economic outcomes. Social development was record low as the country presented the lowest GINI coefficient of Sub-Saharan Africa. From 1990 to 2015, it was the lowest in the region at -67.8 percent of GINI. As it happens with resource-rich nations, it presents negative savings as the country exploits its natural resources to increase current income at expense of future development (World Bank, 2018). Alluding to this context of negative educational outcomes that didn’t follow the economic growth seemed imperative to explore the intricated relationship among natural resource wealth, resource curse and tertiary education.

While there are studies concerning Resource Curse on Education, the existing literature is not directly related to higher education and presents limitations to draw any conclusions about the referred level, meaning the existence of an area not yet explored and a gap to be filled. Regarding Angola, there are various studies concerning Angola Resource Curse but there are no studies concerning Angola Resource Curse on education much less regarding the effects of the malady on the tertiary education level. In this sense, the present research is an experimental attempt to analyse Resource Curse Theory and higher education by using a new conceptual framework that will push for new paradigms and further discussions.

1.2.2 The research purpose statement

The purpose of the present study is to interrogate the Resource Curse theory and its association with education in Angola, more specifically with the tertiary level, to understand how the economic malady has impacted human capital formation and advancement.

The aim of the study is to understand what prevented the public actions and policies, with the culmination of the end of the civil war and the opportunity to rebuild a society engrained on social well-being, to achieve expressive results, regarding the capacitation of population and improvement of its social welfare, considering the witnessed exponential economic growth as consequence of its natural resource wealth exploitation.

First, literature review will be conducted to cover the background of the proposed theoretical framework to gain understanding of the study variables. Second, the research method will be presented in terms of research framework and methodology for data collection and analysis. Third, qualitative research will be conducted to determine how the variables of the study had impacted sector´s performance. Lastly, based on the findings determine which variables had the most detrimental effect in the period under study.

1.2.3 The research questions

Question 1: Is there evidence of detrimental effect of Resource Curse in tertiary education level in Angola?

Questions 2: Which variables of resource curse had the greatest impact in the period under study?

1.3 Delimitations and limitations of the research study

The country of study is Angola because it presents symptoms aligned with the malady. The period under study is 2002 to 2019 as it coincides with end of civil war (2002) and the reformulation of tertiary education policies, and the pre-covid year (2019).

It is crucial to emphasise that the present research was conduct based on the contribution of past studies concerning Resource Curse and accepting that Angola presents the symptoms aligned with the economic malady, which may constitute a limitation of the study.

Another important aspect referred previously is that the framework presented by the literature concerning Resource Curse on education are not directly related to higher education and have limitations to draw any conclusion about the referred level, therefore, the gap in terms of literature available to guide the present research presented a key challenge and constituted a limitation of the research.

1.4 Significance of the research study

Through the comprehensive exploration of this study on Angola political, economic and education history, the influence of political variables across all economic and social sectors was deterministic for country's development. Moreover, this research will elucidate the effects of Resource Curse in the tertiary education level. In this regard, the research will give awareness to society on how the variables affected and might affect further in the current education context.

Moreover, through the analysis made by the present study, state institutions together with other stakeholders will have to adopt a new approach by learning from misfortunes of the past.

In addition to this, the overview presented in this research will push for new paradigms which will be useful for future discussion of Resource Curse and tertiary education level and may lead to a more in-depth analysis of it.

1.5 Preface of the research report

To this end, the report has six chapters. Following this introductory chapter, Chapter 2 provides the country background regarding its historical and economic context as well as the education sector overview. The literature review covering the Resource Curse theory, the relationship concerning Resource Curse and education, Resource Curse in Angola, and the discussion of education variables for tertiary level is presented in Chapter 3. Chapter 4 discusses the research methodology in terms of strategy, design, procedure, data collection and information analysis, as well as the conceptual framework for interpreting the findings. Chapter 5 presents and discusses the findings concerning the research problem while Chapter 6 delivers the conclusions and recommendations.

2 COUNTRY BACKGROUND AND CONTEXT

2.1 Country profile

Angola lies in the west coast of Southern Africa with an extension of 1,246,620 Km^2, it borders with Namibia, Zambia, Democratic Republic of Congo and Republic of Congo. The country reached its independence in 1975 but endured almost 25 years of civil war that ended in 2002. After that, the nation witnessed a golden age era derived by two combined factors: end of civil war and increasing oil prices. During this time, Angola experienced an economic boom, transforming the country in one of the world's fastest growing economies.

Table 1: Country Fact Sheet

Capital city	Luanda
Official language	Portuguese
Population	31.8 million (2019.)
Regions	18 provinces
Natural resources	Oil, diamonds, iron, phosphates, copper, gold, bauxite, uranium
Currency	Kwanza
Gross Domestic Product (GDP)	USD 84,5 (2019)
GDP per capita	USD 2,656 (2019)
Global Competitiveness	136 out of 140 (2019)

2.2 Historical and political context

The country was colonised by Portugal until the independence was proclaimed on 11th of November 1975. A transitional government was created after the independence by joint forces of the Popular Movement for the Liberation of Angola (MPLA), the National Front for the Liberation of Angola (FNLA) and the National Union for the Total Independence of Angola (UNITA). In less than a year, the government was disintegrated and a civil war between the two main ethnically rooted political parties, MPLA and UNITA, immediately followed. It lasted almost 27 years, which can be divided into two periods of major combat – from 1975 to 1991 and 1992 to 2002.

From 1975 to 1991, the country was the stage of a proxy war that represented a clash of ideology between capitalism and communism which included foreign intervention from United States, the Soviet Union, China, Cuba, and South Africa. During this period, the country was governed by MPLA under the Marxist-Leninist ideology and command-economy that induced a large-scale nationalisation. With the end of Cold War, the western blocks ceased their support and withdrew from the conflict. The government formally abandoned Marxism and declared Angola to be a social democracy. Two important Peace Accords were signed namely, Bicesse (1991) and Lusaka (1994) but failed to bring the conflict to an end. In 1992, the first parliamentary and presidential elections were held and the MPLA and its presidential candidate, José Eduardo dos Santos, won with absolute majority but UNITA considered the elections to be fraudulent, which led to the resumption of the civil war immediately after. In April 2002, MPLA claimed military victory over the rival UNITA, following the death of its leader Jonas Savimbi, bringing the military and state violence to an end.

Successive decades of military conflict have caused not only substantial losses in terms of physical and human capital, but also had a devastating impact on the population's general well-being. Most of these effects are directly related to poverty and living conditions, compulsory displacement, food insecurity, poor nutrition, absence of social services (health and education) as well as the collapse of moral principles and values. Thus, the end of the civil war in 2002 provided the country with the initial conditions for the economy to emerge from the long period of struggle, it was also a period for the establishment of peace, reorganisation, reconstruction, learning and hope.

In 2010, a new constitution was instituted and in 2012 the country held its first general election, resulting in another victory for MPLA. Five years later, the country witnessed the first peaceful political transition as the MPLA top candidate, João Lourenço, was elected president of Angola, replacing José Eduardo dos Santos who stayed in power for 38 years (Ferreira, 2005; Barros, 2012, Buza et al., 2020)

2.3 Economic perspective (2002-2019)

After 2002, the nation witnessed a "golden age era" derived by two combined factors: end of civil war and increasing oil prices. During this time, Angola experienced an

economic boom, transforming the country in one of the world's fastest growing economies. The country economic performance under study period can be dived in three main phases:

2002-2008

An astonishing economic growth fuelled by high oil prices was registered in this period. The economic performance allowed a sixfold growth of public spending that represented over US$ 100 billion in investments. A declining inflation rate was observed going over 240 percent in 2001 to average 12.4 percent between 2004 and 2008. The virtuous fiscal cycle was only possible due to the substantial oil windfall (World Bank, 2018).

2009-2013

A fall of oil prices, estimated at 35.3 percent between 2008 and 2009 became painful evident to the country due to excessive oil dependence. A primary budget surplus of 10 percent of GDP in 2008 became a deficit of 7 percent in 2009, causing a rupture in public investment of more than 21 percent. The country started to implement some of the International Monetary Fund (IMF) requisites to improve budgetary and public finance transparency with intention to be eligible for a standby credit, nonetheless, the quick recovery of the economy made those structural reforms lose momentum. From 2010 to 2013, a second period of oil-fuelled growth was registered causing the economy to follow the same trend, GDP growth rate averaged 5.1 percent per year (World Bank, 2018).

2014-2019

An unceasing regression in oil prices began in 2014 and had a much stronger impact on the economy that the previous drop, resulting in national budget cuts, currency devaluations, reduced foreign currency liquidity, and high inflation levels that slowed imports and hindered economic growth. Since then, the country's growth momentum was interrupted, and large macroeconomic imbalances resulted from the economic failure to diversify the economy significantly away from the well-established and, until then, well-profitable oil industry. In 2016, the country's GDP growth fell to zero, forcing the country to adopt a policy mix of exchange rate devaluation that ended up hurting business and showed to be ineffective in taming inflation, which peaked at 42 percent. In 2018, faced with depleting foreign reserves, the Central Bank introduced a new exchange regime that

meant the depreciation of Kwanza of about 33 percent against the Euro, in the very first month (World Bank, 2018).

2.4 The Angolan education system

2.4.1 Policy context

After Independence, the Educational System went through the following major reforms (Nguluve, 2006; Liberato, 2014, Buzza et al., 2020).

1975

Law no. 04, of December 9, 1975, which nationalised the education and created a General Education System, with the State assuming the responsibility of offering education to all citizens.

1977

Decree no. 26/1977, which structured educational policy as a means of consolidating national independence and defined education as a right based on the principles of universality, equal access to school and continuation of studies as well as its gratuity in the broadest sense. The reform had been implemented based on socialist principles by the prism of the nation-state and the schooling of the masses, in the light of the principles of Marx-Leninism. Teaching was structured in five stages: primary education, secondary education (Level I and II), vocational education and university. The vocational education had its main objective the preparation of students either for entry into higher education or for active life, providing them with technical and practical training. This structure did not differ much, however, from the one established by the colonial education policy.

2001

Law no. 13/2001- Basic Law of the Education System, which institutionalized democracy, free primary education, and Portuguese as the base language of the education system, expansion of the school network; improving the quality of teaching; strengthening the efficiency of the education system and, finally, the equity of the education system.

After the Millennium Summit in 2000, Angola began an in-depth process of reviewing

the policies and strategies that regulated the Sector which led to the elaboration of the Integrated Strategy for Improving the Education System (2001-2015): serving as a guide for the fulfilment of the Millennium Development Goals (MDG). Its implementation was divided into five phases overlapping one with another.

- Preparation Phase (2002-2012): which consisted in preparing conditions that would ensure the proper functioning of the outlined assumptions. The main activities were aimed at adapting the teaching management system, organising, and preparing new syllabus (pedagogical materials), in addition to ensuring teachers and school managers training, equipment acquisition and the construction and rehabilitation of school infrastructure.
- Experimentation Phase (2004-20109: The implementation of the second phase began in 2004 and involved the application of the new syllabus produced.
- Evaluation and Adjustment Phase (2004-2010)
- Generalisation Phase (2006-2011)
- Evaluation Phase (2012-2015)

2.4.2 The Angolan tertiary education

Public education

After independence and during civil war, Universidade Agostinho Neto – UAN (Agostinho Neto University), former Universidade de Angola was the sole national higher education institution in the country. Higher education in Angola went through the entire period of major internal military conflict, having operated, albeit irregularly and in troubled conditions.

In 1995, extensive legislation was approved, conferring full autonomy to the university, which ceased to be institutionally subjected to orders from the MPLA or the Ministry of Education.

In 2009, the UAN underwent a resizing process (Decree 5/09), which resulted in the creation of seven public universities, of a regional nature (Decree 7/09, of 12 May). Thus, UAN ceased to be the sole national university and reduced its operational scope to the region of Luanda (Capital) and Bengo, while the faculties, institutes and higher education institutions located in the other provinces became assigned to the other six new state

universities. Herewith the public universities and their geographical distribution (Carvalho, 2012):

- Luanda: Agostinho Neto University – Luanda and Bengo
- Benguela: Katyavala Buila University – Benguela and Kwanza Sul
- Cabinda: Onze de Novembro University – Zaire and Cabinda
- Dundo: Lueji A´Nkonde University – Luanda Norte, Lunda Sul and malanje
- Huambo: José Eduardo dos Santos University – Huambo, Bié and Moxico
- Lubango: Mandume ya Ndemufayo – Huila, Kando Kubango, Namibe and
- Uige: Kimpa Vita University – Uige and Kwanza Norte

Private education

In 1992, the first private higher education named Universidade Católica de Angola – (UCAN), was created but only started operating in 1999, followed by Instituto Superior Privado de Angola – ISPRA in 2000, which was recognised as a university (UPRA) in 2007. Three other universities were created, namely, Universidade Jean Piaget (UniPiaget) in 2001, Universidade Lusíada de Angola (ULA) in 2002, and Universidade Independente de Angola (UnIA) in 2005. The surge of other private higher institutions reached the highest proliferation between 2007 and 2014, with 40 higher institutes and 10 private universities in 2014 (Simões et al., 2016, Buza et al., 2020).

In December 2018, the country had 10 universities and 45 higher education institutions approved by the Ministry of Higher Education, Science, Technology and Innovation. All 10 universities were in Luanda as well as 19 higher polytechnic institutes, the remain institutes were spread across the provinces of Huila (7), Huambo (6), Benguela (5), Cabinda (2), Kwanza Sul (2), Cuando-Cubango (1), Lunda Sul (1), Moxico (1) and Uige (1) (Jornal de Angola, 2018).

Policy context

<u>2005</u>

Guidelines and implementation plan for improving the management of the higher education subsystem in which it was highlighted the government's intention to improve the quality of the educational as well as the expansion of the network of higher education institutions in order to cover the entire country. To that end, it reformed the educational

policy for this education subsystem, restructured the UAN, created a system of internal scholarships and established the Ministry of Higher Education, Science and Technology (MESCT).

2013

The National Staff Training Plan 2013-2020 and the National Staff Training Strategy of the Government of Angola accurately identify courses with a surplus, balance, deficit or even non-existent offer (the latter requiring particularly swift and effective action) and contain the measures and policies that would regulate this trend over the medium/long-term, with well-defined objectives and goals for 2020, under the motto "Training with Quality, Training for Reality".

2018

- Presidential Decree No. 26/18, approved the Organic Statute of the Ministry of Higher Education, Science, Technology and Innovation (MESCTI).
- Presidential Decree No. 191/18, of 8 August, which approves the Higher Education Teaching Career Statute
- Presidential Decree No. 193/18: Approved the General Curricular Rules for Undergraduate Courses in the Higher Education Subsystem
- Presidential Decree No. 203/18 established the Legal Regime for the Quality Assessment and Accreditation of Educational Institutions
- National Development Plan (PDN) 2018-2022, the second medium-term planning exercise carried out within the scope of the National Planning System in force, following the National Development Plan (PND) 2013-2017.

3 LITERATURE REVIEW

3.1 Resource Curse Theory

The Resource Curse concept was discussed by Auty (1993) to denote the paradox that natural resource wealth tended to generate poor economic growth instead of wealth. Sachs and Warner (1995) supported the theory based on the empirical analyses using countries' cross-section samples that found an inverse relationship between natural resource abundance and economic growth. The empirical evidence of an antagonist relationship between resource wealth and economic development has been replicated by Gylfason et al. (1999) and Arezki and van der Ploeg (2007). Initially economic growth was the pinpoint of the malady, but other indicators have been grouped and are being used to study the malady.

Gylfason (2001) identifies four main channels of resource curse transmission, namely: Dutch Disease; rent-seeking behaviour; false sense of security; and human capital curse. Basedau (2005), Arezki and van der Ploeg (2007) and Marsland (2011) have also contribute to the understanding of other channels of the malady such as incidence of civil war, poverty, inequality, unemployment, corruption, education advancement and lack of diversification.

3.1.1 Resource Curse variables

To provide further understanding of its channels of transmission, the theoretical approach proposed by Wadho (2014) seems to aggregate the contribution of past researchers as the author states that the resource curse has mainly been explained by two types of theories: political economy and market based

Political economy

The argument says the presence of natural resources permeates dysfunctional management, especially when institutions are weak, which in turn have voracity effects in the economy. In this subject, various authors have risen the following aspects that fall into this category.

Colonialism

The historical legacies associated to natural resources extraction had negatively impacted the colonies, at economic, social, institutional, and structural levels (Basedau, 2005; Barrows, 2018). The colonies were assigned the role of production of raw materials instead of progressing towards industrialization, a strategy to perpetuate their underdevelopment and dependency. Additionally, class institutionalisation and struggle, tribalism and ethnicity were promoted and prolonged to serve the interests of the metropolis. An example of colonial policy was 'Divide and Rule' in Nigeria (Ocheni & Nwankwo, 2012). Elites and middle class African bourgeoise were created to assure that the political power would facilitate post-colonial interests. On one hand, it meant that the African countries were politically decolonised, but Europeans remained with economic power, on the other hand, political power was handed over to the elites which preserved the status quo, not enabling an efficient use and distribution of natural resources wealth (Nwanosike & Onyije, 2011). Joe Duke (2010) argues that Nigeria is a vivid example of the negative impact of the colonialism policies. The country suffers from inefficiency and low productivity as result of the colonial principles that were established to curb critical thinking, making difficult for a coherent post-colonial management system to succeed.

Civil War

Marsland (2011) argues that armed conflicts are key contributor to Africa's slow rise from poverty and underdevelopment. Zeleza (2008) assesses the causes and costs of war in Africa, stating that at the heart of all conflicts and wars are struggles over political power and resources. By political power is understood state and institutions' governance, developmental capacities, delegative practices, and resources with regards to their availability, control, and access. Nigeria is a great example of periodic violence and tension between ethnic groups over natural resources control; the DRC war stemmed from the mad scramble for the country's minerals, agriculture, and forestry abundance; Angola is another example, the country's natural resources wealth financed a civil war that lasted 25 years.

Rent Seeking

The quest for privileged benefits and the diversion of resource rents by government officials at expense of the majority of the population is discussed by Basedau (2005),

Auty (2008); Philippot (2010), Marsland (2011), van der Ploeg (2011) and Ross (2015). Evidence from past studies demonstrate that resource rents have led to increased corruption that ruined countries' long-run performance. A few examples can be cited such as the discovery of oil in São Tomé and Príncipe that was followed by increased rent-seeking behaviour from government officials; Oil revenues in Brazil were associated with increasing public spending, yet a major portion of the spending was diverted away through patronage and embezzlement (Ross, 2015). Angola and Nigeria are also examples of elite capture and rent-seeking over broad-based wealth creation that took place after independence (Auty, 2008).

Democracy

The impact of democracy - the environment that respects human rights and freedom of speech, and promotes economic and social welfare, equity, and equality is discussed by Marsland (2011) that states that natural resource abundance, especially oil wealth is associated with autocratic regimes. Ross (2015) analyses the relationship pattern between oil wealth and democratic transitions between 1960 and 2008 and concludes that: (i) nations such as Portugal, Spain, Dominican Republic, with little or no oil, became democratic early and remained democratic; (ii) countries with modest oil and gas abundance like Mexico, Bolivia and Romania made recent transition to democracy; and (iii) major oil wealth are associated with autocratic regimes and are found in Middle East and North of Africa, including other countries such as Russia, Angola, Gabon and Malaysia. Furthermore, subnational studies of Argentina, Brazil, India, Iran, and United States find that oil rents tend to extend the terms in office of voted local officials (Ross, 2015).

Institutions

Basedau (2005), Frankel (2010), Philippot (2010), Marsland (2011), Van der Ploeg (2011) and Barrows (2018) analyse the role of institutions, the rule of law that permeate a conducive or destructive economic and social environment. The quality of institutions is the fundamental aspect that determines countries' prosperity. Good institutions promote meritocracy, accountability, transparency, equality, democracy, and productive entrepreneurship which foster economic and social development whereas weak institutions lead to dysfunctional legal system, inequality, dictatorship, corruption, low

transparency and accountability worsening off economies. Political elite in natural resources tend to dismantle well-functioning institutions, promote low-quality governance and less equipped personnel with objective to gain and maintain access to rents (Ross, 2015). In this regard, Frankel (2010) asserts that weak institutions may explain underperformance of oil-rich countries such as Sudan, Nigeria and Angola and diamond-rich states such as Sierra Leone, Liberia, and Congo.

Market-based economy

Rely on the Dutch disease theory, which in turn gives rise to other economic characteristics such as economic volatility and lack of diversification

Dutch Disease

The high reliance on the export of natural resources and the increasing value of foreign exchange leads to unappreciation of other sectors (agriculture and manufacturing) prompting the de-industrialisation that brings unpleasant macroeconomic side effects due to rents windfalls mismanagement, such as: increasing inflation, misallocation of talent, increasing public spending, employment volatility, current account deficit and high level of international borrowing. Evidence from past studies show that African countries such as Nigeria (Auty, 2008), Angola (Auty, 2008; Barros, 2012), Equatorial Guinea (Same, 2008) suffer from Dutch Disease.

3.2 Resource Curse and education

The existing literature on the relationship between natural resources and human capital accumulation has reached no consensus as divergence is noted from the research conducted.

Gylfason (2001) presents evidence of resource curse effect on education, by demonstrating an antagonistic relationship with public educational expenditure, expected years of schooling for girls, and gross secondary-school enrolment, concluding that natural capital crowds out human capital and slows down growth. Philippot (2010) presents the concept of point-resources and diffuse-resources and explains that point resources (mining products and hydrocarbons) are negatively related to public spending on education as share of total public expenditure, and enrolment rates at every level whereas diffuse resources (wheat and maize) have less detrimental impact. The findings

of the study conducted by Marsland (2011) supports the resource curse effect on education for fuel minerals (oil) in comparison with non-fuel resources. Cockx and Francken (2016), corroborate with above mentioned researchers as they find robust evidence of resource curse on education associated with public education spending relative to GDP, particularly in African countries.

A non-monotonic association between abundance of natural resources and the resource curse is claimed by Whado (2014). The author asserts that three different growth scenarios can occur depending on natural resource wealth, namely: (i) Low endowment of natural resources: faster growth, higher education attainment, and no corruption; (ii) High endowment of natural resources: poverty-trap with no growth, no education attainment and very high corruption – confirming the resource curse on education; (iii) Intermediate ranges: can present multiple equilibria.

On the contrary, Pineda and Rodriguez (2010) counterargue natural resource curse on human capital. The study findings illustrate that natural resources are beneficial for non-income factors of human development such as literacy and life expectancy, when disaggregating the results for each HDI component.

A third point of view is vindicated by Shao and Yang (2014) and, Savoia and Sen (2020) as the authors extend the understanding of natural resource curse on education beyond the negative correlation to a more organic understanding associated with internal political and economic dynamics and their interaction with resources. The experiences are by no means universal and either outcome is possible, resource curse and human resource curse are not a fate but conditional to government´s role at macro-level, in promoting the foundations for the economic virtuous or vicious cycle.

3.2.1 Analysis of Resource Curse variables' effect on education

Colonialism

According to Basedau (2005), during colonialism period the population had no effective civil rights. The colonial state had a selective educational policy with the objective of forming and maintaining a ruling class capable of defending the interests of the colonial bourgeoisie, that implanted a system that prevented school access of majority of the

population, disregarding the existence of a high number of children of advanced school age, who never attended school and remained in ignorance. The slight improvements registered over the years did not change the low level of knowledge as most were prevented from accessing any level of education above primary school. The selective criteria contributed to the configuration of a serious post-independence problem as the number of citizens mastering scientific and intellectual knowledge became insufficient to meet the countries' needs. Evidence from Angola (Ferreira, 2005; Neto, 2005; Liberato, 2014) and Nigeria (Joe Duke, 2010) illustrate that the nations shared similar educational experiences under colonial rule.

Civil War

Civil wars have detrimental effects on education as enrolment declines at all levels, owing to the destruction of infrastructure, school's closure, displacement, migration, and deaths. The unrest represents a major impediment for education advancement as the foundations and transfer of knowledge are not met. According to Lai and Thyne (2007) conflict also alters government priorities and subsequent expenditures. During armed conflicts funds are diverted to military expenditures due to increasing insecurity, or in order to maintain control over resources. In post-war period, nations are likely to face limit funds to meet the overall investment needs as a result of declining economy, excessive borrowing, and a deficit in current account, directing investment to development projects with immediate economic impact to the detriment of other long-term policies such as education. Evidence from Sierra Leone (Hoenig, 2018) and Angola (Ferreira, 2005; Liberato, 2014) illustrate that the education system has bear the costs from destruction of infrastructure, supporting facilities and fixed assets; displacement of population; abduction and death of staff and students; decreasing enrolment rates; limitation or even interruption of educational services in the interest of safety, that all together have contributed to poor academic performance and decreased quality of education.

Rent Seeking

The consequences of rent seeking are the primary cause of social inequality and detrimental effects on education. First, corruption alters the incentives of government to invest in productive human capital as it does not fully invest resource rents in intangible and productive wealth beyond physical assets such as innovation, creativity,

entrepreneurship, training, research and development. Second, it causes misallocation of talent and occupational choices by encouraging candidates to compete for public office positions (with lower salaries) and engaging in illicit transactions since they could potentially earn extra income from corrupt activities because productive activities have comparatively lower rates of return (Thi Hoa, 2020). Third, rent seeking diverts resources from productive to corrupt activities since officials direct spending away from education as the sector gives less opportunities for illicit collections compared to larger infrastructure and military projects (Marsland, 2011). Fourth, rent seekers depend upon academic failure to avoid well-functioning institutions that would encourage meritocracy, accountability, and transparency, creating a vicious cycle of underperformance, mediocracy, and underdevelopment (Ross, 2015). Fifth, the appointment and promotion of staff are based in subjective practices such as corruption, nepotism, favouritism, political affiliation, political clientelism at expense of qualification, needs for personnel and meritocracy (Fomba, 20022). Graduates in Nigeria are victims of corruption, nepotism and hiring inefficiency. Corruption goes beyond the government officers to industry managers and hiring personnel, with nepotism and other illicit hiring practices making job searches inefficient and unequal (Monga et al., 2019). Angola, Nigeria, Congo, and Uganda scored below 30 in Corruption Perception Index (scale: 0 is highly corrupt; 100 is very clean) over the period 2000 and 2019, indicating that the countries bear serious corruption problems that constitute a major impediment for social welfare.

Democracy

The impact of democracy is also discussed by Philippot (2010) Marsland (2011), Cocks and Francken (2016) and Sogge (2017). Natural resources countries are linked with authoritarian regimes which dictate the resources rents management and allocation. Officials and business elites have a non-development outlook with respect to education advancement, institutional quality, regulation, transparency, and strong judiciary system as it presents a serious threat to their political control and personal wealth accumulation. A more educated population would likely demand governmental reforms, greater participation in decision-making and sound economic policies, leading to calls for inspection, transparency and accountability. In this sense, politicians deliberately divert public spending from education to preserve the control over resource rents. The Democracy Index confirms the referred authors arguments, in 2006 Angola and Nigeria

had an authoritarian regime type. More than a decade after, in 2018, Angola didn't show any signs of improvement as the country remained with the same regime type while Nigeria have transit to hybrid regime category.

Institutions

At macro level, Fomba et al. (2022) argue that institutional quality has a positive effect on student achievement, school completion and educational success. In developing countries, the deterioration of institutional quality by virtue of corruption, political instability and weak governance leads to decreasing effectiveness of public spending on educational and the quality of teaching. These nations have the lowest performance indicators in terms of institutional quality. Consequently, the overall educational system and the value of diplomas are called into question given the low institutional quality. At micro level, African universities have failed to move beyond their post-colonial strategic role focused on national pride and the training of mere civil servants and teachers, failing to foster entrepreneurship even though self-employment, majority informal, constitutes more than 60% of employment in Africa (Monga et al., 2019). The World Bank Institutions Rank elucidates the precarious situation of Angola and Nigeria as the nations are at the bottom of the graph and ranked way below the world median. Despite the downward trend over the years, Botswana remains well positioned as it scored above world median. Singapore and Norway are the top scorers.

Dutch Disease

When nations suffer from Dutch Disease the economy is highly reliant on the natural resource sector, crowding out human capital as the industry is highly capital intensive. In this sense, the government has low incentives to invest in education since there is reduce return of investment. Sectors such as agriculture and industry tend to be moribund and less capable of generating employment opportunities (Philippot, 2010). Another important aspect is discussed by Flug et. al (1998) related to economic volatility that has a negative relationship with human capital accumulation. The absence of resources to finance education due to rents windfall mismanagement is more accentuated in nations where wealth is unequally distributed. The underestimation of the value of education has adverse long-lasting effects as investment in human capital takes place at a critical age and cannot be postponed or even recovered. The study concludes that employment

volatility, income inequality and lack of financial markets explain almost half of the education gap between Latin America and developed nations. The conclusion can also be replicated to African countries that suffer the malady.

3.3 Angola Resource Curse and its relationship with education

According to Palley (2003), Auty (2008), Hammond (2011), Barros (2012) and Cameron (2017), Angola exhibits the characteristics of the curse outlined in literature review.

Colonisation

Portugal ruled the country based on the minimum necessary principle to obtain the greatest profit. During the colonial regime, the institutions were established to assure the exploitation of natural resources and the channelling of oil rents to the Metropolis, benefiting exclusively the colonial system and elite. The education in Angola during this time was clearly an elitist system, the state transferred the responsibility for "indigenous education" to religious missions, while still regulating and supervising it. The support of these missions proved to be fundamental, especially in relation to higher education. As a result of the selective policy, the country achieved independence with an illiteracy rate of around 85 percent, one of the highest in the world (Liberato, 2014). The independence of the country was accompanied by the exodus of capital as well as skilled labour. This situation contributed to the configuration of a serious post-independence problem, the number of Angolans mastering scientific and intellectual knowledge became insufficient to meet administrative, economic, educational, and social needs of the country (Neto, 2005).

War/Conflict

Angola has endured a civil war that lasted 25 years. After the withdrawal of the competing cold war powers, the civil war became a naked struggle for power in which the proceedings from natural resources rents distorted country's reality, allowing elites to seize power by force as they had capital to support their armies. The possession of oil by the ruling MPLA and diamonds by UNITA, influenced the course of the conflict by providing capital that enabled the prolongation of the war (Basedau, 2005; Hammond, 2011; Cameron, 2017). The armed conflict had negatively contributed to country's low quality of the education and lack of adequate human capital as various generations were

left without proper educational system due to heavy destruction of school infrastructure, absenteeism among teachers, low school attendance and financial limitations of state budget (Liberato, 2014). Additionally, the elite became more concerned with enriching itself than with promoting social development. In this period, not only education was not chosen as a priority but due to the interests of the ruling class, the budget devoted to education was often diverted (Ferreira, 2005).

Democracy

According to Hammond (2011), Barros (2012) and Cameron (2017) the Angolan political system is closer to an autocratic regime disguised as democracy. The ruling party (MPLA) has been in power for almost five decades since the proclamation of country's independence. Successive decades of governance in which national institutions were shaped to benefit the political power that was concentrated in the hands of a small elite has defrauded the Angolans' dream and expectations of an independent nation with a self-generated and widely shared growth and responsive governance. Instead, dictatorial projects disguised as democratic prospects were implemented along with the creation of privileged power groups, social exclusion, excessively asymmetrical wealth distribution, unscrupulous governance, and corruption. Regarding the education system, it was strongly influenced by country's politics. The solely university was institutionally subjected to orders from MPLA, the ruling party was involved in the recruitment of teaching staff and appointments were based in subjective criteria without taking great account of the skills needed to ensure education quality (Kotecha, 2012).

Rent-seeking

The country natural resources rents have been associated with pervasive management rooted in systemic corruption and weak state institutions (Basedau, 2005). The International Monetary Fund fiscal audit has been unable to account for hundreds of millions of oil revenues (Palley, 2003). Auty (2008) and Barros (2012) state that the country offers a great example of persistent exploitation by elite rent recipients as it demonstrates how underdevelopment was prolonged by the rent-seeking conduct at the expense of the majority. The rent-seeking government made secret deals with foreign oil companies and completely disregarded the well-being of the population (Hammond, 2011). Sogge (2017) asserts that the country has long been oriented outward as

institutions and systems were designed to promote outflow of resources, revenues, adding that the financial accumulation has taken place mainly abroad, while inward reinvestment for sustainable growth and social welfare have been limited. Concerning to education, the opaque reporting system, percussor of public spending mismanagement and rent-seeking can be demonstrated by the fact that from 2002 and 2007 (economic boom period) unspecified education services were absorbing the amount between 44 to 72 percent of the total education budget (Delgado, 2013). Another important aspect was that limit funds made available for the education sector dictated structural adjustments. Neto (2005) and Carvalho (2012) converge to the understanding that learning losses at all levels are a consequence of high student-teacher ratio, inappropriate infrastructure, teaching staff with low morale due to precarious working conditions and low salaries that in turn gave rise to unethical and illicit behaviour as mean of survival. Corruption was promoted and manifested in most varied ways, from the requirement of payment for admission, payment for grades and payment for degree certificates.

Role of institutions

Cameron (2017) asserts that Angola is an example of an endemic governance. Institutions played a huge role in facilitating the resource curse as transparency and good governance were purposefully avoided to perpetuate the elites' power. The control over resource rents coupled with unclear financial distribution and report allowed elites to accumulate an expressive amount of wealth in detriment of general welfare. The country lacked almost any transparency as it ranked in bottom positions in Corruption Perceptions Index over the years. Carvalho (2012) explains that the failure of country's educational system is closely linked to lack of trust in institutions, public administration, and justice due to high corruption, nepotism, and impunity.

Dutch Disease

The country's exchange rate tripled from 1992 to 2005. During this period the government adopted a dual exchange rate system, allowing monopolists to import goods at lower official rate, and then sell at parallel exchange rate which was much higher. The difference between the two rates was around 3 to 1, leading to a galloping inflation and discouraging investment in competitive sectors as the Dutch disease exacerbated. In this context, non-extractive industries became uncompetitive due to high operational costs.

The situation was even worse for agriculture, of which more than half of the population relied for survival. The business elite by benefiting from the dual exchange rate and predatory prices did not have incentive to stabilise the economy, perpetuating an economic system that had detrimental effects for the country. As a result of poor management and undiversified economy highly reliant on oil sector, the government was faced with chronic budget deficit that had to be recurrently financed by compromising future oil revenues as collateral of commercial foreign borrowing (Basedau, 2005; Auty, 2008).

3.4 Higher education variables

Concerning Higher Education, the search concentrated around factors that raised achievement and enabled competitiveness. Different models and concepts were developed along the years and examples can be pointed such as (i) the Porter's Diamond Model (PDM), also known as the Theory of National Advantage, that elucidates that the reasons behind the competitiveness of a nation are anchored on four main dimensions – factor conditions, demand conditions, related and supporting industries, and firm strategy, structure and rivalry; and (ii) the Global Competitiveness Index (GCI) introduced by the World Economic Forum (WEF) that assesses competitiveness according to twelve pillars: institutions, infrastructure, ICT adoption, macroeconomic stability, health, skills, product market, labour market, financial system, market size, business dynamism, and innovation capability.

The choice of variables followed a criterion that centred on macro level, aggregating contributions from Resource Curse on Education and Education Competitiveness based on Global Competitiveness Index. In this sense, a total of eight variables were chosen, namely:

Public spending

Total public spending on education as a percentage of GDP. The variable plays an important role on education quality by promoting the supply of educational inputs (Deebom & Zite, 2016). According to Marsland (2011) oil dependence is not solely correlated with lower education spending in each year but also negatively correlated with year-on-year increases in education spending. When comparing the share of public

spending per capita relative to GDP per capital, resource rich countries performed very poorly compared to nations with absence of resources endowment.

Fiscal policy

The use of government spending and taxation to promote economic growth has a pivotal role on social and economic development. The study conducted by Masi et al. (2020) states that point-resources are negatively associated with fiscal capacity. This can be explained by the fact that false sense of security weakens the perceive need for tax collection. Concomitantly, low tax collection enables the control over rents as public spending can be manipulated without pressure from society for scrutinisation (Philippot, 2010). Botswana is an example of fiscal policy success for investing revenues originating from its mineral wealth in the benefit of population welfare. The country has been applauded for its good governance and fiscal discipline that in turn had remarkable impact in country's growth and development. (Philippot, 2010).

Infrastructure

Educational infrastructure includes buildings, furniture, didactic material (workbooks, textbooks), technological infrastructure and other means to assure students' instruction and learning experience for success. Sahlberg (2006) indicates that infrastructure together with financing and management are one of key dimensions of education reform for competitiveness. According to Kotecha et al. (2012) the poor or lack of appropriate infrastructure such classrooms, libraries, laboratories, computers, and internet connectivity are responsible for low academic quality in Sub-Saharan countries. In 2007, on average, 4 lectures per computer and 70 students per computer was observed (Kotecha, 2012).

Training and development

Training: the formal and informal instruction to acquire the necessary knowledge and skills to perform job-related tasks and improve job performance.

Development: can encompass a wide range of activities, including mentoring and coaching.

Sahlberg (2006) emphasises education and training of human capital as a determinant of economic competitiveness. According to Deebom and Zite (2016), the massification of the educational system in African countries led to a profound change in the configuration and structure of the teaching force that is now mainly composed by untrained or less trained and poorly paid teachers at expense of quality. The low academic performance and skills of graduates is traceable to ineffectiveness of professional teaching and training.

Inspection and supervision

(i) Inspection – scrutinises the school as a place of teaching and learning and encompasses content coverage, resources provision (buildings, equipment, textbooks), discipline, records management, and institutional governance; (ii) Supervision – focuses upon achievement of the appropriate expectations of educational system. The importance of this variable resides in the fact that school attendance and enrolment rates do not guarantee human capital formation as many graduates are award diplomas without having the knowledge and skills to be employed. The poor level of production of knowledge in SADC region is exacerbated by the low quality and quantity of academic and research staff in the higher institutions (Kotecha et. al, 2012). Deebom and Zite (2016) found that teachers are in deficit of analytical, evaluation, reportorial and disciplinary skills that in turn compromise the quality of effective teaching and learning process and conclude that the major constraints of inspection and supervision implementation are poor funding, inadequate facilities, and (once more) shortage of qualified staff.

School enrolment

Number of students enrolled in the tertiary education level. Van Pinxteren (2018) asserts that, in the last years, Sub-Saharan Africa has increased the enrolment rates for higher education however there is substantial differences among countries. In 2014, the enrolment rates for Chad, Ethiopia and Botswana were 3.4 percent, 8.1 percent and 28 percent, respectively. The statistics illustrate that in countries such as Chad, the tertiary education is still a mechanism for elite reproduction that is largely foreign-educated. Similarly, Kotecha et al. (2012) reports that even after more than half a century of independence of most African countries, access to higher education remains firmly an option for the elite as demand is not supported by the supply of enough institutions. In Sub-Saharan Africa only 6 percent are enrolled in higher education compared to the

global average of 26 percent (AAI, 2015).

Knowledge

Learned by the human brain and then it is amplified and integrated into organizational knowledge by social interaction. The role of knowledge is discussed by Salmi (2000) that argues that countries' comparative advantages will come less from natural resource and more from innovation and the use of knowledge. The general low level of knowledge production in SADC countries is intensified by the low quality and quantity of academic and research staff in the higher education institutions (Kotecha et al., 2012). A study conducted by Cloete et al. (2015) in 8 African countries found that, with exception of South Africa and Mauritius, flagship universities did not have enough senior staff at professoriate level. The referred authors assert that, in general, African universities are not strengthening self-generative capacity as the combination of low proportions of senior academic staff with the low percentage of doctoral graduates was associated with low knowledge output.

Employability

Set of skills, abilities, aptitudes, and personal traits, that enable graduates to be employed and to build a career in their field of work. Unemployment in African countries has remained a challenge. Ntemngweh (2016) discusses education and job mismatch in Cameroon, arguing that massification of education has not translated into positive outcomes, adding that the country suffers from education and job mismatch as new universities are created but syllabuses do not match current market needs as they are mainly based on theoretical knowledge and outdated practices instead of promoting critical thinking and innovative skills. The study conducted by Amani (2017), regarding factors associated with unemployment among graduates in Tanzania, have similar findings as the choice of field of study, job-skills mismatch, ineffective career guidance and ineffective labour market information system are among the barriers to employment.

4 RESEARCH METHODOLOGY

4.1 Research strategy and design

The framework presented by the available literature concerning Resource Curse on Education is not directly related to Higher Education and have limitations to draw any conclusion about the referred level. Contemplating that there is a gap in terms of literature available to guide the present research, the study is an experimental attempt to analyse Resource Curse theory and its association to tertiary education level.

Past studies of Resource Curse are mainly based on observational data due to paucity of high-quality of data (Ross, 2015), and the studies of Angola Resource Curse followed the same principle. In this sense, the present research embraced a qualitative approach to provide rich textual descriptions of the complexities of how the phenomenon is experienced in the tertiary education level.

> Qualitative research approaches are commonly used when there is little current understanding of a complex phenomenon, if an issue is being considered from a new perspective, or if current knowledge is fragmented (Kyngäs, 2020, p. 03).

4.2 Research procedure and methods

4.2.1 Research data collection

The research data collection was developed in two phases, by sourcing primary and secondary data.

Phase 1: Collection of secondary data

The secondary data collection was the initial phase of the research given the importance of understanding the theoretical framework and the definition of the study variables. The objective was to reunite as many relevant and high-quality documents as possible. The search was conducted between May 2021 and June 2022, and the sources of information were academic articles, papers, reports, press articles from online relevant sources such as Journal databases and Google Scholar as well as reports from the Angolan

Government, and reports from National and International Institutions (National Institute of Statistics, AFDB, International Monetary Fund, WEF, World Bank, among others).

The first step was to conduct the search concerning Resource Curse to obtain a depth understanding of the phenomenon and its diffusion channels. The literature review concerning Resource Curse on education followed to identify the possible mechanisms linking natural resources and human capital. The third step was to explore past studies concerning Angola Resource Curse to comprehend the specific mechanism of its manifestation in the country. The fourth phase was to review relevant contributions concerning Angolan education sector, more specifically, the tertiary level. The final stage was to search pertinent contributions about higher education competitiveness to attain information regarding strategic elements and aspects that contributed to human capital formation and nation's competitiveness.

A database of papers related to Resource Curse, Resource Curse and education, Resource Curse in Angola and Angolan education sector were created. The relevant studies were grouped according to common themes and the findings were listed.

To answer the research question, it was necessary to understand how variables from Resource Curse corresponded with Higher Education. The selection criteria of the Resource Curse variables were based on the literature review, namely:

- Colonialism
- Civil War
- Democracy
- Rent-seeking
- Institutions
- Dutch Disease

Concerning Higher Education, a plethora of factors, dimensions and features of education competitiveness were covered and discussed by various authors. The topic could yield another literature review, but it was not the intention of the present research. As an experimental study, in a universe of theories and variables, the aim was not to lose focus and try as much as possible to concentrate on the fundamental aspects. As mentioned previously, the choice of variables followed a criterion that centred on macro level,

aggregating contributions from Resource Curse on Education, and Education Competitiveness based on Global Competitiveness Index, namely:

- Fiscal policy
- Public spending
- Infrastructure
- Training and development
- Inspection and supervision
- Enrolment rate
- Knowledge
- Employability

Once the variables of the two dimensions were defined, it was necessary to understand the nature of their interactions in the Angolan context.

Phase 2: Primary data collection

Accepting that Angola suffers from the malady and given the extensive discussion under literature review section, the second phase of the research was to obtain information pertaining the tertiary education level. In this sense, primary data was obtained through semi-structured individual interviews, in the online format with objective to explore and draw inferences from study variables.

> Interviews are one of the options for collecting qualitative data, with the advantages of providing opportunities to motivate and clarify responses, allowing flexibility in questioning the respondent, in determining the sequence and choosing appropriate wording, to allow greater control of the situation and finally to allow better evaluation of the respondent's non-verbal behaviour (Vilelas, 2009, p.174)

The interviews took place between October and November 2022. As mentioned, the emphasis was on the educational variables however issues related to the malady were also covered, contemplating the research questions and the delimitations of the study. The key questions were pre-planned and previously sent to participants, but the interviews were conversional, with pre-planned and unplanned questions flowing from previous responses when applicable, allowing "the researcher to respond to the situation at hand, to the

emerging worldview of the respondent, and to new ideas on the topic" (Merriam, 2009, p. 90). The dialogues were recorded, and notes were taken which served as field diary. The research data collection instrument is presented in Appendix 1.

4.2.2 Research target population and selection of respondents

The target population is the entire group that the study intends to draw conclusions about. In this sense, the research population pertains the tertiary education level in Angola.

The sample is the specific group that the study collected data from. For the present research, participants included professionals linked to academia, engaged in research, and published articles in their field of work about Angola.

4.2.3 Description of the research respondents

Requests for interview were sent to 48 candidates, from which 23 have replied to the invitation. From the 23 potential respondents, 14 were interviewed, 6 withdrew their intention by remain silent after the information sheet was sent and 3 were not available due to time constraints.

The sample was constituted by 14 respondents, from which:

- 12 were Angolans professionals all linked to higher education and academia. All of them with published studies and articles in their field of work, from which 4 participants have published specifically concerning higher education.
  Regarding the academic fields, 4 were in education, 2 in sociology, 2 in management, 2 in medicine, 1 in maths and 1 in engineering.

  Concerning to regional location, 10 were based in Angola and 2 were pursuing their postgraduate studies (PhD) overseas.

  From the 10 living in Angola, 6 were based in Luanda, 1 in Benguela, 1 in Huambo, 1 in Namibe and 1 in Malanje. Six were lectures of public universities, 3 of private institutions and 1 was a former lecture of a private institution. Five had master's degree and 5 had PhD.
- 2 foreign professionals with PhD, based in Europe, that have published articles concerning Angola with focus on economics and politics, including resource curse.

The definition of the sample size was based on the study of Guest et al. (2006) regarding the number of interviews that were sufficient for an experiment with data saturation and variability.

> Based on the data set, they found that saturation occurred within the first twelve interviews, although basic elements for metathemes were present as early as six interviews. Variability within data followed similar patterns (Guest et al., 2006, p. 59).

4.2.4 Ethical considerations when collecting research data

The intent of qualitative research is to describe a phenomenon from participants' point of view through interviews and observations. Ethical issues are present in any kind of research and such issues can be alleviated using ethical principles of autonomy, beneficence, and justice (Orb et al., 2001).

Autonomy

Prior to the interview, the researcher sent the thesis information sheet that contained the thesis objective, study variables and interview's guide questions. An informed consent for the interview was also sent recognising the participants' right to request any clarification pertaining the study, the right to freely decide whether to participate in the study and the right to choose to answer or not certain questions that might constitute a sensitive topic or matter. By agreeing to be interviewed, participants understood that the study had been explained to their satisfaction and consented the audio recording of the interview session as well as the processing of personal information for research purposes.

Beneficence

Confidentiality and anonymity were also considered and included in the consent form. In this sense, pseudonyms in form of alphabet letters were attributed to each respondent and were used in the presentation of results. Participants were also informed that the information shared and discussed, including direct quotes, could be included in the research.

Justice

Equal information was shared with participants.

4.3 Framework for interpreting research findings

The research data and information processing followed a four-stage process, namely: condensing by sorting the data that served the purposed of the study, coding into groups of categories, identification of consistent pattern of relationships between themes and theorising the phenomenon under study.

In deciding the appropriate conceptual framework for the research that could allow inferences to be made by the interconnection of the two dimensions, namely Resource Curse and education, Correspondence Analysis was elected to be the appropriate foundation for interpreting the relationship between the two categories.

Correspondence Analysis is a non-linear, multidimensional technique of multivariate descriptive analysis that allows inferences to be drawn from categorial data, facilitating analysis and detection of relationships that would not be detected in a series of pairwise comparisons, helping to demonstrate not just relationships but how variables are related in a perceptual map (Shanka et al., 2006). The method has been used in diverse fields of work and examples can be cited such as in (i) medicine – Greenacre (1992), Fellenberg et al. (2001); (ii) management – Shanla et al. (2006), Ho and Hung (2008); (iii) architecture – Habib et al. (2012); (iv) sociology – Glevarec and Cibois (2021); (v) education – Askell-Williams and Lawson (2004), to mention a few.

A distinct advantage of the technique over other methods is the ability to deal with frequency data that may not conform to a normal distribution and meet the restrictions on data necessary for other statistical analyses. The fact that the method is relatively free from assumptions about the nature of the data is another key vantage as it can be used with frequency data, with percentages, with data in form of ratings and heterogenous datasets (Askell-Williams & Lawson, 2004).

Due to the fact that most of the past researches on the Resource Curse are based on observational data and is constrained by the paucity of high-quality data (Ross, 2015), and studies of Resource Curse in Angola followed the same principle, the advantages of the technique dictate the choice as the present study does not conform with data for statistical analysis.

Following the framework, the contingency table was elaborated aggregating the dimensions' variables in rows (Education) and columns (Resource Curse on Education). For the present study, the frequencies of the contingency table were based in the broad theoretical foundations of the literature and primary data collection. The frequencies ranged from zero (0) to hundred (100), where zero represented a non-existent relationship and hundred a complete relationship.

Table 2: Correspondence Analysis Table

		Dutch Disease		Colonialism	Civil War	Rent Seeking	Democracy	Institutions
		Volatility	Diversification					
A	Failure of fiscal policy	90	80	0	0	90	90	100
B	Inadequate public spending	90	90	80	80	100	90	100
C	Lack of infrastructure	80	60	80	100	90	90	90
D	Absence of training and development	30	20	100	100	100	100	100
E	Lack of inspection and supervision	90	50	0	70	100	100	100
F	Low enrolment rate	90	70	100	100	100	90	80
G	Low level of knowledge	20	70	100	100	100	100	100
H	Low level of employability	90	90	100	80	80	80	90

The justification for categories frequency assignment were as follows:

A. Failure of fiscal policy corresponded high with poor performance of institutions, lack of democracy, rent seeking as resource rents were spent in unsustainable way with low rates of genuine saving. The category is not applicable for colonialism and civil war because such policies were not in place at that period.
B. Inadequate public spending corresponded high with all malady variables as education was neglected in all circumstances.
C. Lack of infrastructure was a heritage from colonial era that was exacerbated by civil wars. In the subsequent periods resources were not fully reinvested in physical educational capital. Issues affecting quality of higher education are linked to inadequacy of poor academic infrastructure and supportive facilities (libraries, laboratories, internet connection, etc.).
D. Absence of training and development corresponded high with political variables because easy revenues reduced the perceived need for developmental policy designed to ensure sustained future growth rates through education and skills

promotion. Dutch Disease has some correspondence as the unappreciation of other sectors brought less skills to be learnt and developed.

E. Lack of supervision has a zero correspondence with colonialism since it was not applicable in that period. It corresponded high with political variables of Resource Curse because lack of transparency and accountability at macro level has a ripple effect at the micro level. Volatility corresponded high as resources' bonanza erode critical faculties and induced a false sense of security. A medium correspondence with diversification is attributed as inefficiencies of the economies were not conducive to ensure quality standards.
F. Low enrolment rate corresponded high with all Resource Curse variables as demand for higher education was not economically and politically addressed and supported by enough institutions, courses, and spaces available.
G. Low level of knowledge corresponded high with political variables of Resource Curse as limited importance was attributed to knowledge for development purposes. Diversification has a medium correspondence since the less economically diversified the less skills and capabilities were developed and promoted.
H. Low level of employability: corresponded high with colonialism and the other illness variables due to selective educational criteria and crowding-out effect of natural resources on human capital, respectively.

The pattern of relationship among variables is demonstrated in a visual perceptual map and the interpretation of results are discussed in the next section. The study concentrated on the practical application and interpretation of correspondence analysis rather than the mathematical and statistical details.

4.4 Framework for discussing research recommendations

Taking into consideration the research findings and with the intention to apply and integrate a transdisciplinary management theory, the SWOT Analysis will be used to address the sector's issues and provide recommendations.

SWOT Analysis or SWOT Matrix is a strategic analytical, management and planning framework used to evaluate a specific environment or context (industry, company, business, project, etc) competitive position by assessing its strengths, weaknesses, opportunities, and threats.

Table 3: Swot Analysis Tool

		Definition	**Key Questions**
Internal	**Strengths**	Internal Assets	What are the sector advantages? What is doing competitively? What are the resources?
	Weaknesses	Internal deficits	What is done badly? What should be avoided? What are the internal deficits hindering performance?
External	**Opportunities**	External trends that favour sector's performance	What the external trends that can be used to favour performance? What good changes will aid? What can be done better to improve current circumstances?
	Threats	External trends that limit performance	What are the obstacles? What future changes will affect the sector? Does the sector have management support and resources?

Source: Sabbaghi & Vaidyanathan (2004)

According to the study conducted by Benzaghta et al. (2021), the framework has been widely used in different fields and contexts that can be divided into five major areas, namely, academic and education, agriculture, general management, health and healthcare, and marketing and social media.

4.5 Research strengthens

To ensure research trustworthiness the following constructs were employed:

Credibility

To guarantee that the phenomena under scrutiny had been accurately narrated the adoption of well-established research methods were in place. First, the collection of primary and secondary data was conduct. Second, in the collection of primary data, the study sample was composed by national academics and foreign professionals with deep knowledge of study variables. Third, the development of the early familiarity with research objective, concepts and interview was done through the information sheet

provided to participants. Fourth, the purpose of the study in completion of master's degree was emphasised so that participants were informed and could decide whether to participate in the study.

Transferability

Regarding the educational variables and to ensure that the findings from the study could be applied to a wider population, the diversity of the sample (national academics) in terms of field of work (education, medicine, management, sociology, engineering), nature of the organisation (private, public) and location (different provinces: Luanda, Benguela, Huambo, Malanje, and Namibe) were considered.

Dependability

Although the interviews were conducted based on the guide previously sent, the sessions followed different scripts according to participant background and type of engagement. In the interviews with national participants the conversation focused on education variables and the session would begin by requesting respondents to share their perspective and evaluation of the Angolan tertiary education level. The analysis of each education variable would follow subsequently, with Resource Curse questions been left to the end. The interviews held with the foreign participants would follow the inverse procedure, by starting with the analysis of Resource Curse aspects and ending with education variables. The interviews duration ranged from one to two hours, depending on respondents' engagement and time spent on each question.

Confirmability

In order to reduce the researcher's bias, triangulation criteria was employed by making use of different methods of investigation and data collection and studying it from more than one standpoint to confirm the findings.

4.6 Research weaknesses and limitations

The research had its limitations. First, As referred previously, given the continued controversy of Resource Curse Theory and Resource Curse on Education, no consensus had been reached regarding the adoption of a specific framework that could be applied to derive the relationship between resource curse and higher education. As an experimental

study, the intrusion of the researcher's bias was inevitable concerning the selection of variables, formulation of study categories and frequencies' assignment.

Second, the availability of information, data gaps and lack of key statistics concerning Angolan Higher Education limited the scope of analysis.

Third, issues related to time frame for conducting data collection didn't allow for a greater number of interviews to be done due to time for accessing respondents, obtain their response and schedule the sessions. Respondents' availability constituted another administrative limitation.

Fourth, three of the national participants accepted to give the interview and to be audio-recorded but didn't send the consent form even after the interview had been done and subsequently requested. This situation may be related to the fact that Resource Curse subject is somewhat controversial and little debated subject.

5 PRESENTATION OF RESULTS

5.1 Analysis of higher education variables

This section discusses the results of the education variables in the Angolan context.

Public spending

Most of participants expressed unanimous discontentment with budget allocation and lack of political will to address sector´s constraints, stating that the education sector was, and is still being neglected and does not constitute a political priority, contrasting with defence that has always been given privilege. Public spending on education lacks publicly available information, and concerns with transparency and accountability were raised as budget allocation is not effectively expended and often is diverted.

Participant C stated:

> "Education is a right embodied in the Republic Constitution, but the state has resigned from its responsibility. Education is not a priority area and is being neglected. The government priority is Security/Defence sector since the budget allocation is much higher than the percentage allocated to the social sector. Education funding is not limited to the general state budget, it includes a set of external funding that the country receives, nonetheless, funds fail to be fully allocated to the sector due to bureaucracy and diversion as a result of lack of transparency and accountability. The priorities are incongruent with country needs, an example this is the expressive investment related to the launching of the second satellite, after the first one had gone lost, without having a strong educational basis and lack of academic and scientists base. The educational strategy remains theoretical, it lacks practical implementation. The absence of a policy focused on education, constitutes a policy in itself."

The duality of the Angolan budget system and transparency failure is an aspect depicted by Isaksen et al. (2007).

Table 1 presents the trend of country's GDP per capita and the educational expenditure per capita along the years, reinforcing the disgraceful situation of the sector.

Table 4: GDP and Educational Expenditure Per Capita (US$)

Year	2002	2004	2006	2008	2010	2012	2014	2016	2018
GDP Per Capita (US$)	841	1.222	2.562	4.082	3.641	5.245	5.626	3.677	3.290
Ed. Exp. Per Capita (US$)	17	n.a	58	n.a	125	172	165	101	67
Ed. Exp. Per Capital (%)	2%	-	2%	-	3%	3%	3%	3%	2%

Source: www.countryeconomy.com

The abysmal discrepancy between both variables expresses the profound marginalisation of the education sector as the economic booming did not translate into long-term meaningful and lasting investment in social development. Public spending on education was extremely low considering that country's GDP per capita that positioned Angola as middle-income nation.

UNICEF (2017) reinforces the sector's underperformance by stating that country did not invest in education according to what was foreseen in the 2000 Millennium Summit, regarding Millennium Development Goals, where the government committed to allocate 20 percent of total expenditure as percentage of budget to the sector. Public spending has further deteriorated by subsequent cuts due economic crisis.

Since education and training take time to complete, reduced public spending had and still has negative effects that will be very much felt in the future if no remediate actions are put in place.

Fiscal policy

Participants expressed that little impact was observed from fiscal transfers directed to education and informed that civil society doesn't have access to tax policy execution and evaluation reports, which make performance assessment difficult.

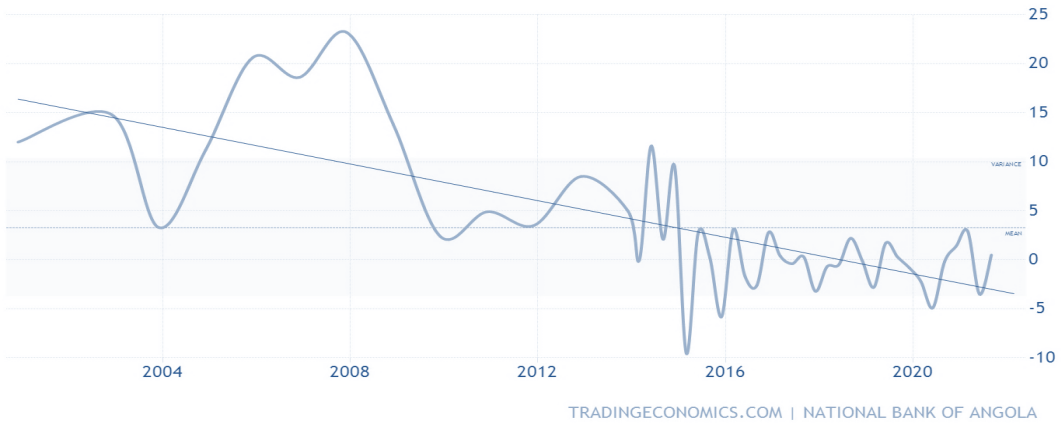
Participant M affirmed:

> "The fiscal policy is mainly linked to oil revenues to avoid scrutiny from civil society. Social contract has been broken between government and taxpayers' citizens."

This situation is reported by Isaksen et al. (2007), indicating that Angola has a low internal resource mobilisation apart from the proceedings from oil and minerals, making difficult to find alternative revenue sources when the income from oil plunges. In turn, oil taxation dependence makes the government to become less liable to its citizens.

Evidence from Figures 1 and 2 validate that fiscal proceedings are mainly linked to oil revenues. Figure 1 shows the performance of the Angolan economy between 2000 and 2020, with respect to GDP growth rate. In this period, oil reached an all-time high price in 2008. The economic periods of boom and bust of the Angolan economy were in accordance with oil price shifts. From 2004 to 2008, the economic growth coincided with high oil prices. In 2009 the oil prices went down, picking-up from 2010 until 2014, and the same trend was observed with GDP growth rate, demonstrating clear evidence of the country's oil dependence, high exposure to price fluctuations and the weakness of monetary and fiscal policies.

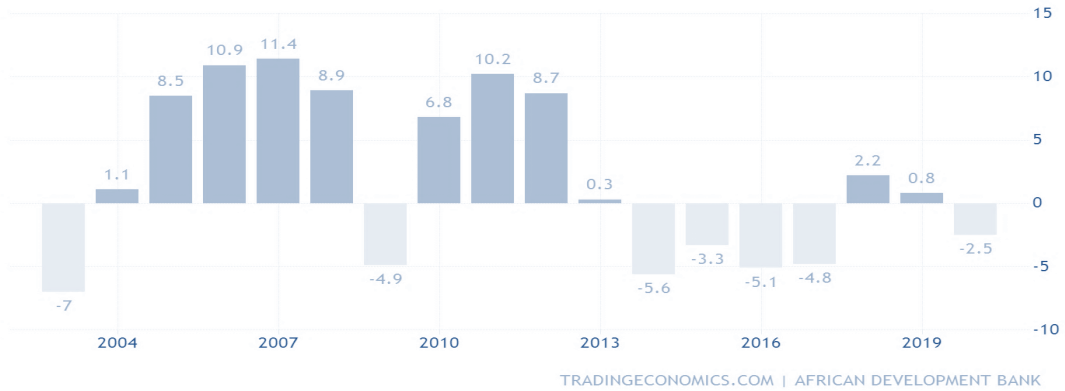
Figure 1: Angola GDP Growth Rate



Source: www.tradingeconomics.com

The fragility of country's fiscal policy and the economic exposure to volatility is further demonstrated in Figure 2 as budget deficit followed the pattern of oil prices, resulting in pro-cyclical external financing that rose public debt and structural vulnerability to oil prices fluctuations.

Figure 2: Angola Government Budget as percentage of GDP



Source: www.tradingeconomics.com

Irrespective of the economic period, the country shows low genuine savings rate with resource rents being spent unsustainably and not being reinvested with a view of long-term development and meaningful impact. Figure 3 exhibit the rampant escalation of external debt as percentage of GDP, a burden that will eventually pass on to future generations.

Figure 3: Angola Government Debt as percentage of GDP



Source: www.tradingeconomics.com

As a result, the education and the remain economic sectors had been negatively affected by the economic shifts and the mismanagement of rent windfall that coupled with budget deficit of a declining economy have exacerbated the constrains faced by the tertiary educating level.

Furthermore, in 2012, the country launched its Sovereign Wealth Fund of US$ 5 billion, making it the second largest Sub-Saharan Africa's fund after Botswana's Pula Fund (US$ 6 billion). Nonetheless, contrasting Pula governance and management success, the

Angolan fund highly failed in promoting country's growth, prosperity, and socio-economic development. The fund attracted deep criticism over lack of transparency, nepotism, corruption, abuse of power, embezzlement of public funds and failure to protect the economy from Dutch Disease.

Enrolment rate

Regarding enrolment rate, participants stated that improvements were witnessed mainly linked to the surge of private education institutions between 2007 and 2014. Until 2009, the country had solely one public higher institution, Universidade Agostinho Neto. Nevertheless, the massification of higher education brough the questionability of its quality linked to poor sector's conditions.

Participant F stated:

> "Massification of tertiary education meant the detriment of the quality given the poorly paid and less qualified teaching staff."

Figure 3 allude to the reality that the country still bears the cost of lost generations that were left out of the education system and will have further negative effects if actions are not taken towards quality. Until 2015, the enrolment rate was below 10%, presenting a challenge to a country with an expansive population pyramid.

Figure 4: Angola tertiary enrolment rate



Source: www.tradingeconomics.com

The Global Competitive Index (GCI) also corroborates with the slight improvement of the enrolment ratio, but the country still lags far behind its peers with similar GDP per capita.

GCI 2006-2007 | Tertiary enrolment 117 (out of 125)

GCI 2014-2015 | Tertiary enrolment 121 (out of 144)

Infrastructure

In the public sector, the government is not investing in tangible physical capital. Some buildings and facilities were built but are still insufficient to meet educational demand and country needs, and the lack of maintenance of old and recently built infrastructure have conditioned the overall performance and outcomes. With few exceptions, the private sector shares the same struggles in terms of infrastructure quality.

The following aspects were emphasised by the interviewers related this variable:

Location

The network of higher education institutions is centralised.

Participant A stated:

> "Tertiary institutions were implemented according to Colonialism norms to serve the urban population".

Participant J commented:

> "Investment has been made in the capital cities of Luanda, Benguela, Huambo and Huíla, requiring population to relocate to the urban cities".

Educational Premises and facilities

The lack of importance given to the tertiary level and the lack of enforcement of quality requisites, as well as the absence of investment dictated the poor conditions under which most of the institutions operate. The picture of the public sector is even worse as faculties operate in precarious conditions, like the engineering and science faculties in the capital city which facilities are containers and flats, respectively, since the colonial period. In other cases, classes take place in the basic education schools, in which the overall fittings, fixtures, furniture and equipment are not appropriate for the higher level.

Participant E indicated:

> "Low investment in infrastructure, the higher institutions lack required conditions. Teaching staff do not have appropriate facilities to work, meet, prepare teaching classes and perform other pedagogical responsibilities. Until recently, the institutions were oriented to social sciences courses as they demanded less investment.

Participant F explained:

> "The public higher education has serious problems. Although some facilities were built to accommodate increasing demand, the global assessment is below acceptable quality level. There are no libraries and laboratories. The few existent laboratories face many struggles with lack of consumables and availability of qualified teachers, which make practical classes very challenging or even inexistent. There are also problems related to maintenance, funds for this purpose are not available, conservation work relies on social responsibility from private sector. The teacher/student ratio is high. All this affects quality".

Carvalho (2012) and Liberato (2014) converge to the same understanding that the quality of higher education was influenced by the operating struggles such as absence of qualified academic staff, lack of infrastructure and supporting facilities, equipment, textbooks, and libraries. Almost a decade after, the reality is still very much applicable, signalling the lack of attention given to the sector.

Training and development

Participants were unanimous pointing that the low quality of tertiary level was traceable to teachers' academic qualification. A combination of other factors under this variable were also emphasised:

- Little importance is given to training and development. The regulation that establishes the appreciation and value of work of professors and professors-researchers which in turn would dictate the appropriate remuneration for their status was inexistent. The decreet of Higher Education Teaching Career Statute was approved in 2018 but lags in its implementation.
- Poorly paid teachers at expense of quality. The PhD category salary is well below the cost of living and do not qualify for vehicle asset finance much less for house loans. Low salaries and lack of any social benefits, in turn give rise to a phenomenon named by them as "mercenaries teachers" as they are forced to work in 4 or 5 institutions to make the complimentary financial means.
- Shortage of masters and PhD academics, majority of higher education institutions have predominantly lecturers with honour's degree. In absence of qualified

academic lecturers, speciality disciplines are given by inexperienced academics.

- Private higher institutions are authorised to operate but generally don't have their own academic staff, they resort to public universities, meaning that lecturers are affiliate and teach in more than one institution at expense of quality.
- Research and development are not seen as priority and funds are not made available. In addition, there is lack of recognition of the work done by national researchers and published studies at macro (government) and micro (higher institutions) levels. There is already a group of national researchers that are references in their field of work, but their studies are not appreciated and taken into consideration in decision-making processes.
- Public recruitment is mainly for honours category, signalling the incongruency of policies at expense of tertiary level quality.
- Low sector's incentives and work conditions dictated that the existent academics and new potential graduates lack motivation to remain or to pursue an academic career, leaving the sector understaffed and underperforming.
- Recurring strikes take place in the public sector, demanding better work conditions, better salaries and social benefits, funding for training and development, and funding for research. The government addresses this type of events with crisis management protocol instead of adopting a holistic approach, by inviting academic community to discuss new practices, strategies and way-forward, and most important by implementing policies.

The calamitous situation of training and development is also reinforced by the Global Competitive Index as the country remained in the last position for almost a decade.
GCI 2006-2007 | Higher Education and Training 125 (out of 125)
GCI 2014-2015 | Higher Education and Training 144 (out of 144)

All these aspects have a negative impact on student´s performance and dropout rates, knowledge transfer, lecturers' retention rates and overall sector's performance.

Inspection and supervision

The commoditisation of higher education was an aspect raised by most of the participants, stating that the tertiary level it's not part of the state's masterplan but instead it is run by private interests which major aim is profit at expense of critical reflection and education

as an emancipatory possibility.

The exponential growth of private institutions coupled with the unregulated sector had detrimental impact on quality and exposed the fragility of the regulatory framework. Despite the importance of higher education for human capital formation and country competitiveness, reliable measures of quality and important key statistics of the tertiary level do not yet exist.

Assessment, self-assessment, institutional accreditation as mean to improve the quality of teaching and learning are not practiced. No impact was felt in terms of assessment as to guarantee and regulate institutional accreditation and the quality of ongoing programs.

Other important aspects were also pointed out:

Participant K commented:

> "There are many inconsistencies in the higher education. Inspection and supervision are not practice at all. The few exercises are conducted when licensing an institution. After that, on-going monitoring visits, request of information pertaining policies implementation and quality assessment are not performed. There is no annual assessment, scoring attribution and ranking based on performance and compliance. As a result, there is no place for sanctions or penalties."

Participant M stated:

> "Lack of inspection and supervision is related to lack of governance transparency at macro level. The lack of accountability has a ripple effect in the way the system is shaped. There are no examples to follow. There is also lack of capabilities and competencies to perform such duties."

Participant A asserted:

> "The government allocates funds to support students who are sent to study overseas without minimum supervision and scrutiny of performance. Some of them take more than the average time to complete the studies and in some cases they had never returned. Furthermore, there is lack of alignment with country needs as the field of study sometimes are not in accordance with national priorities."

The study conducted by Simões et al. (2016) asserts that the increasing demand led to the settlement of unregulated and purely mercantile higher intuitions that charge expensive fees for academic courses without any practical qualification and accreditation. The authors also highlighted the lack of assessment, the insubstantiality of the regulatory framework and the absence of key statistics affecting the quality of the tertiary level.

Knowledge

Participants expressed common views about weak knowledge produced by the tertiary level. The formation of human capital base has been compromised by the aspects previously discussed.

In addition, it is important to highlight that investment in research and development in all areas is incipient. To date, higher institutions still don't have institutional repositories, even the first and oldest public university does not have. The higher institutions are not self-engaged in being certified and registered in international databases as well as take part of international scientific conferences and congresses. There are institutions without even one professor-researcher, an indicator of how the higher education is being conducted.

The limited offer of postgraduate education is another constraint, PhD studies are mostly carried overseas with little support from government.

The little support given to scientific research and knowledge production in turn impact the pedagogical approach followed by teachers. They make use of outdated pedagogical models with minimum methodological rigor that focus on theoretical approach in detriment of application of concepts, research, and knowledge development with the aim to provide students with skills such critical thinking, creativity, and innovativeness.

Another crucial aspect that affects knowledge base is the mediocre education from precedent levels that negatively impacts the quality of tertiary level candidates. Students carry deficiencies from secondary school and do not acquire the necessary proficiencies to be in higher education.

Given the low knowledge production, in 2019, the Global Competitiveness Index placed the country in the last position (141) with regard to critical thinking in teaching.

Employability

The low employability of Angolan graduates is closely link to overall education system failure to meet quality standards. The lack of qualified academic staff, the low level of knowledge, the mediocracy of precedent levels of education, the absence of investment in training and development, the theoretical knowledge approach at expense of meaningful skills transfer, the lack of promotion of critical thinking, creativity, entrepreneurship skills caused higher education standards to be adjust downwards. The result was an untrustworthy higher education system where education quality cannot be assured.

In addition, there was never in place good political policies to advance local people. The country always relied on expat professionals to run the main economic sectors.

The Global Competitiveness Index ranked the inadequate educational workforce the second most problematic factor for doing business, in the report of 2006-2007 and 2014-2015. In 2019, the country scored last (position 141) for the skills of current workforce, elucidating the catastrophic situation of the Angolan education system.

5.2 Correspondence Analysis map

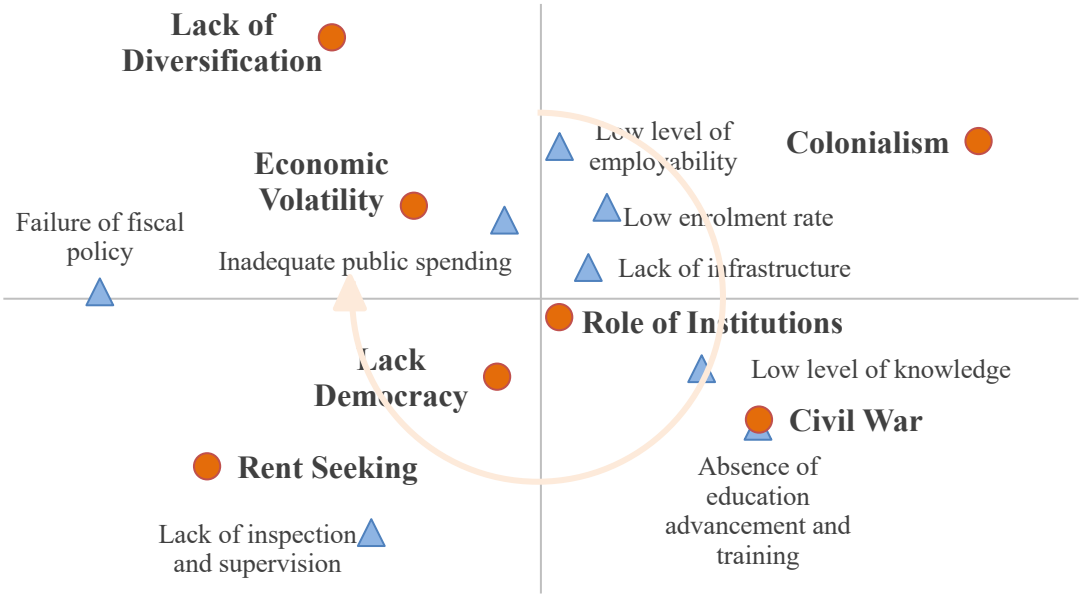
The purpose of the present study is to interrogate the Resource Curse Theory and its association with the tertiary level. This section discusses the results of the association between the two dimensions, Resource Curse and education with objective to answer the research questions.

The Resource Curse variables are represented by the orange circles while the education parameters are symbolized by the blue triangles.

Figure 4 elucidates that dimensions' variables resulted in four main clusters as their relative positions indicate similarities and differences among them with respect to the attributes, namely:

a) Quadrant 1 – Weak Economy
b) Quadrant 2 – Weak Governance
c) Quadrant 3 – Civil War and Role of Institutions
d) Quadrant 4 – Colonialism

Figure 5: Correspondence Analysis map – Resource Curse and education



5.2.1 Precedent period of study

Colonialism

Following a chronological order, the colonialism dimension is associated with low enrolment rate due to the selective educational policy that prevented most of the population from accessing any level of education above primary school (basic literacy) that in turn dictated the inexistence of academic and technical skills that would promote employability.

Participant B stated:

> "Colonialism is at the top of the list of Resource Curse variables because it was so long lasting and decisive in shaping political institutions and political norms that have guided the Angolan leadership and continued to influence very strongly in post-independence period."

Colonialism also brought disarticulation in the provision of social amenities and the urbanisation pattern as most social amenities, including educational institutions and infrastructure were concentrated on the main capital cities and were non-existent beyond urban areas. The reality is very much applicable in the current context as

dysfunctionalities were carried on, higher intuitions are concentrated in cities of Luanda, Benguela, Huambo and Huila, resulting in migration from other areas, polarisation, overcrowding, and aggravating social disparities.

Civil war and institutions

The post-independence period presented major challenges as the mastery over knowledge and strategies to lead the country were inexistent. It also demarks a watershed in history of the country given the opportunity to build adequate foundations and institutions that could positively impact social and economic growth. Instead, a negative stimulus deep-rooted in greed and grief associated with elitism, tribalism, ethnicity, and political affiliation created conditions for the failure of political institutions that proved incapable to assure common welfare and gave rise to the armed conflict over political power and resources control. The nation went from plural nationalism to the totalitarian one-party system that highly impacted the role of institutions which were shaped and subject to the central authority of the state party. The problems inherited from the colonialism instead of being tackled were even exacerbated, by funding shortage, lack of qualified teaching staff, low level of knowledge couple with the negative effects of the civil war on infrastructure, budget diversion to defence, enrolment rates, migration, and social security.

5.2.2 Period under study 2002-2019

Weak governance

The weak governance dimension stemmed from lack of democracy which has annihilated the power of institutions that together with flourishment of rent-seeking, corruption, nepotism, bribery, patronage, and embezzlement worsened the education system.

It is important to note that in the correspondence analysis map the Institutions category is close to zero axis to denote their remarkedly passive power that undermined effective service delivery. Colonialism and civil war represented a prelude of the institutional weakness that was emphasised by the command economy. In the period 2002-2019, despite the democratic discourse, the institutional centralisation was further reinforced by

the hegemony of the ruling party, witnessing an interchangeability between the government and the institutions.

Democracy

Based on most participants' responses, the tertiary level is being used as political tool to ensure socio-political dominance as from being a symbol of independent statehood, the university became an instrument of politics. The role of institutions regarding inspection and supervision was remarkedly passive and issues affecting academic quality (lack and poor infrastructure, high staff-student ratios, demotivated staff, substandard salaries, high failure rate, inspection, and reporting exercises) were overlooked.

Participants expressed their opinions about democracy, institutions, and its influence in higher education:

> The country is an undemocratic democracy with a continuity policy of one-party ideology. There is no separation of powers and there is no autonomy, the political elite rules the economic and judicial powers based on personal interests overriding the collective ones. They have become the country's entrepreneurs, involved in private sector including the tertiary education. Their lack of knowledge, academic preparation and long-term vision prevented them to think strategically about the role the university should play in country's development, what is being witnessed is the perpetuation of ignorance." (Participant E)
>
> "Imbalanced of political forces, the monopoly of political, military and security power of the ruling party led to a centralised governance model, in which the interest of the political elite predominated. A more educated population would demand accountability by way of parliament, public processes, involving the media, civil society actors and academics themselves and a more developmental orientation around technology, management to build a functional internal economy." (Participant B)
>
> "The end of the civil war meant military victory, as such that military with liberation and resistance movements background and the lack of knowledge influenced their way of governance and priorities. The political power is much concerned with their own interests. The country is not a

democratic state since the rule dictates that a consolidated democracy is when people through election elect a new government twice. Angola has not yet done it once. In this context, academia is being looked upon opposition and a threat to ruling elite. The few that had access to educational opportunities belong to the political elite and are educated abroad, strengthening their hold on to the system. There is limited access of information, lack of transparency, lack of institutions checks and balances, oversight, and control. A good example is that the state budget and the real allocation of funds are not necessarily the same thing. The real flow of funds does not follow the budget." (Participant M)

"There is no separation of powers, a result of political history - government led by a single party since independence. Party that has its own ideology. They use education as political tool: a lot of critical mass is not desired, the way to limit is choose not to bet." (Participant N)

"Democracy does not exist. They use education as a political tool to stay in power – there is no political will. It is an attempt of education genocide to maintain the status quo. There is political interference in higher education at the point that there is no freedom of expression, those who express opposite opinions are seen as opponents and revolutionaries. Educational laws and policies are made without public academic consultation" (Participant I)

"It is very politicised. There is no separation of powers. Questioning public policies and questioning political power gives rise to reprisals. People are afraid and prefer to remain silent than to problematise and question. Political elite use education as a tool to stay in power. Educate means promoting democracy and a fair society. Education is the preparation for the enjoyment of freedom of rights, critical analysis that is part of citizenship construction process. All of this is not intended by the ruling elite. They promote a culture of ignorance; citizens are expected to reproduce the ideas and accept the status quo. There is no debate culture, what is witnessed is a divorce between academic and scientific community, and political elite. The educational policies are done in an

> authoritarian way, in which the will of a group of people linked to the ruling party prevails" (Participant C)

Rent seeking

Rent-seeking stems from the wealth distribution problem that have persisted over time and sustained by the elite interests.

Corruption is an important variable of the resource curse syndrome that affects the higher education. The following aspects were raised by participants: first, politicians direct spending away from education since the sector's spending gives less opportunities for rent seeking compared to larger infrastructure and military spending projects. This situation goes in hand with the priority given by the state budget to defence sector; second, the political elite use their position to appropriate rents that could have been put to the good of the society and economy at large, being a good example the sovereign fund; third, since the political elite is involved in the private sector, public funds are often diverted to fulfil personal projects. This is confirmed by the fact that the political elite has become the higher education entrepreneurs.

At the end all variables are tied together as rent-seeking affects them all, starting with the public spending and ending in sector's overall performance.

Another important aspect related to corruption at micro level is regarded to low social conditions. The survival issues faced by teachers corrupt their principles and values as one of major reasons of rent-seeking in education is concerned to substandard salaries, wages and benefits paid to lectures that feeds the circumstances to engage in illicit behaviours.

Corruption also alters the incentives of individuals to invest in productive human capital and induces the misallocation of talent as well as lowers the returns of productive activities.

> "Anyone that has the intention to comply with rules and measures that enforces accountability and quality is not seen with good eyes, it becomes a target as its contradicting the status quo." (Participant K).

Corruption degrades moral principles and code of ethics not only of the education sector but the society as whole.

> "Part of the family disruption and improper moral education stem from the reproduction of wrong standards of principles and values." (Participant N)

Weak economy

The overconfidence in the oil sector has translated into residual economic diversification that constrained real growth, becoming a binding restraint to development. This dimension elucidates that the Dutch Disease aggravated the returns of human capital in the following aspects: (i) the mismanagement of rent windfall exposed the country to external debt crises that have contributed to the degenerating financing conditions in which the country finds itself. Stringent budgets and other pressing social needs resulting in relatively small budget allocation to higher education had dire impacts on the sustainability of long-term projects and overall contribution of tertiary education to national development and competitiveness; (ii) the disincentive to promote other sectors impacted higher candidates' choices that were affected by the market itself and based on the chance of future employability. In this sense, the state continued to be the largest employer and social sciences always prevailed due to factors associated with long country's ideology, offer of the courses themselves by the universities and the fact that the oil industry is capital intensive and very specialised. As a result, the country's competitive advantage remains engrained in its natural capital due to reduced diversification and human capital stock.

5.2.3 Correspondence Analysis conclusions

The study concludes that the Resource Curse had a negative effect on tertiary education. The correspondence analysis map illustrates that in the period under study, 2002 to 2019, the dominants variables related to country's low educational performance were weak governance and weak economy. The weak governance stemmed from the lack of democracy that have undermined the role of institutions by the pervasive political interference permeating the illicit wealth accumulation by ruling elite in detriment of common welfare. The problems inherited from colonialism and civil war, persisted over time and further investments in the education sector were neglected. The weak governance is also related to weak economy as macroeconomic instability and fiscal imbalance resulted from inefficiency of the regulatory framework. Easy revenues from

resource rents diminished the perceived need for developmental policy designed to ensure sustained future growth rates through education and skills promotion.

The booming oil industry has contributed significantly to national output but was not translated into social development. The overall quality of educational system is responsible for the low returns on education and country's low competitiveness.

The conclusion is reinforced by 2019 country's competitive classification. The country scored last in most of the categories related to human capital (Table 5).

Table 5: Angola – 2019 Global Competitiveness Index Components

Pillar	Rank (1 Best performance | **141 Worst Performance**)
6th Pillar: Skills	**140**
Current workforce	**138**
6.01 Mean years of schooling	130
Skills of current workforce	**141**
6.02 Extent of staff training	137
6.03 Quality of vocational training	141
6.04 Skillset of graduates	141
6.05 Digital skills among active population	141
6.06 Ease of finding skilled employees	141
Future workforce	**140**
6.07 School life expectancy	112
Skills of future workforce	**141**
6.08 Critical thinking in teaching	141
12th Pillar: Innovation capability	**140**
Research and development	**140**
12.05 Scientific publication	135
12.06 Patent applications	132
12.07 R&D expenditures	118
12.08 Research institutions prominence	117

Source: www3.weforum.org

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The intent of this study was to explore Resource Curse Theory and its relation to education, more specifically to the tertiary level in Angola. The reasons behind the malfunction of the education system and low quality of the Angolan tertiary level are likely to be multifaceted and could not be entirely exhausted in this research. The study concludes that the Resource Curse had a negative effect on tertiary education, in which the association between Resource Curse and education variables resulted in four main clusters: weak economy, weak governance, civil war and institutions, and colonialism, attesting that these dimensions had impacted the higher education quality.

While colonialism and civil war had detrimental impact on education outcomes that could not be recovered, evidence from the results show that in the period under study (2002-2019) weak governance played a crucial role in perpetuating the deleterious effect of the previous periods by widening the gap between those with and without access to socioeconomic opportunities and welfare, including educational prospects. The failure of institutional effectiveness and the persistence of rent-seeking are the root causes of the wealth distribution problem that impacted tertiary education and has become the binding constraint of country's development. Country's governance characterised by discretionary decisions, opaque reporting system, corruption, patronage, nepotism and lack transparency and accountability have impacted the educational system and exacerbated the social inequality as the benefits of the oil boom have accrued to only a small part of the population. The study acknowledges that the lack of success of strong foundations was (and still is) directly related to resources wealth, implying that once institutions were controlled, they became inactive players and had no further impact.

Despite some improvements over the last years that render an increase in the number of higher public and private institutions accompanied by increasing enrolment rate, quantity did not translate into quality. Expressive and better investments are required to meet the needs of the underfunded and neglected sector and boost the quality of the education being provided if economic development is to be achieved.

6.2 Recommendations

Before starting to enunciate the recommendations, it is necessary to clarify that more important than the past id the present and the future. It is known that a country and an economy cannot be built in a few years, bearing in mind a past marked by conflicts and destruction that shook the foundations at economic and social levels. The conflict that lasted for years had an indescribable impact on the formation and alteration of codes of ethics and conduct, in which citizens turned to their own interests in a desperate attempt to ensure their own survival. The end of the war established a new paradigm for the nation, which was faced for the first time with possibility of looking to the future with hope and fearlessness. Imbued with euphoria and glory but also with lack of knowledge and leadership skills, were seduced by short-term enthusiasm without the concern of long-term vision. A behaviour deeply rooted in history and experiences, not very distant, of a war short-term strategy base, in which the long-term practically did not exist.

Almost two decades after de end of the war and a significant economic expansion, it is witnessed that social gains were beyond common expectations. It is time to reflect. Much has already been studied and written about failures and decisions dissociates from the common welfare. The present study intends, more than pointing out errors and culprits, the nedd to reflect on such mistakes and conducts so that they are not replicated and eternalised, to ensure that the future of next generations is not mortgage and above all, to ensure a holistic inclusion and development. It is necessary to overcome the intrisinc barriers imposed by the war, such as command, selfishness and profit maximisation, and understand that those seek and call for change are not necessarily opponents.

> "That heritage has given us an epic sense of history and a deep pride (...) but it also gave by inertia, the idea that the people were a kind of army and could be commanded through military discipline. This inheritance did not help to give birth to a capacity for positive insubordination, (...) to create a culture of frontal and open discussion. Much of the brainstorming is thus replaced by personal aggression (…) and demonisation of those who think otherwise." (Mia Couto, 2005)

Considering the results findings and applying the SWOT Matrix framework, the following aspects could be listed for each factor.

Strengths	**Weaknesses**
- Higher number of universities - Legal framework for higher education (Policies) - Increasing number of scientific research and publications - natural resource abundance - Safety due to end of civil war - Academia eager to contribute for country's development.	- Commoditisation of education - Inappropriate budget allocation and funding - Political interference in Academia - Inadequate infrastructure - Lack of institutional quality, transparency, and accountability - Absence of sector's policies implementation - Absence of synergies among stakeholders - Lack of appreciation of lecture's career and value of work done by the national academy - Lack of macro strategy of country needs and career guidance - Corruption, nepotism - Academia seen as an opposition - Lack of autonomy of higher institutions - Small percentage of qualified staff - Tax burden placed on the sector - Bureaucracy - Importation of foreign educational models to local context - Political officers as educational entrepreneurs
Opportunities	**Threats**
- Strategically formulate the higher education - Adequacy of education models to local context - Increase budget allocation to meet educational needs and quality - Government backing action towards transparency, accountability, and sector's development - Build synergies among stakeholders - Strategic partnerships with private sector (Training and internships and consultancy projects) - Regulation implementation - Tax incentives - Raising cultural change - Infrastructure and technological advancement - Social engagement with communities - International networking and accreditation - Enhance capabilities through training and development - Develop competitive advantage	- Economic crisis - Brain drain to other sectors or through migration - Decreasing public spending - 3rd Revolution (technological) - Progressing globalisation - Lack of leadership - Political represented academic and decision-making bodies in higher institutions - Population growth - Technological illiteracy

6.2.1 Recommendation for policymakers

The higher education needs to be rethink and must emerge to be aligned with country's own concept, context, and purpose for long-term development.

- A holistic approach should be adopted by including relevant stakeholders to contribute to the tertiary education masterplan to transit from crisis management to long-term planning, increasing cooperation, communication, and institutional linkages at all levels.
- The government should determine medium to long-term objectives of development around strategic economic sectors to guide the higher education institutions, in terms of courses, knowledge, skills and capacities that need to be fostered.
- The public spending, investment and resources on education should be prioritised and increased to meet the sector's requirements for quality and in accordance with masterplan for country's development.
- Credibility of planning and budgeting must be strengthened as well as monitoring, reporting, compliance, auditing, and accountability. Performance should be valued and rewarded.
- Higher education and academia should have autonomy from political power.
- Strength the institutions' role by enforcing regulation implementation seeking continuous improvement and in the process of reviewing academic standards and quality of tertiary education system.
- Tax incentives to companies that promote training programs.

6.2.2 Recommendations for private sector

Private sector such as firms, institutions, associations, bilateral and multi-lateral agencies, and other type of organisations also play an important role in enhancing the quality of the higher education. Industries can contribute by financing higher institutions in research to leverage their businesses as well as provide training opportunities for students and consultancy opportunities. Companies can also contribute by refining syllabus, curriculum, and pedagogy to prepare graduates according to workforce needs.

6.2.3 Recommendations for academia

Correspondence Analysis was used for the present study, but future studies can propose new frameworks to assess the relationship between Resource Curse and the tertiary education sector.

Based on the methodological approach to study the relation between the two dimensions, the outcome was the grouping of variables in four main categories. Results indicate that weak governance played a crucial role in the higher education performance. Empirical studies can be developed to gain further insights concerning weak governance effects on education, by narrowing down the educational variables and analysing them in a more isolated manner.

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8 APPENDIXES

8.1 Thesis information sheet

Name: Vanessa Karina Pereira Carrilho

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Thesis title

The Resource Curse and Tertiary Education Sector in Angola

Objective

The purpose of this study is to interrogate the Resource Curse Theory and its relation to Education in Angola, more specifically to the tertiary level, to understand how natural resource wealth had impacted human capital advancement.

The significance of the study is to understand whether the actions and policies implemented by the government after 2002, with the culmination of the end of the civil war and the opportunity to rebuild a society engrained on social well-being, managed to achieve expressive results, regarding the capacitation of population and improvement of its social welfare, considering the witnessed exponential economic growth as consequence of its natural resource wealth exploitation.

Resource Curse Theory

The Resource Curse concept was discussed by Auty (1993) to denote the paradox that natural resource wealth tended to generate poor economic growth instead of wealth. Sachs and Warner (1995) supported the theory based on the empirical analyses using countries' cross-section samples that found an inverse relationship between natural resource abundance and economic growth. The empirical evidence of an antagonist

relationship between resource wealth and economic development has been replicated by Gylfason et al. (1999) and Arezki and van der Ploeg (2007).

Resource Curse and education

The existing literature on the relationship between natural resources and human capital accumulation has reached no consensus as divergence is noted from the research conducted.

The evidence supporting a hypothesis for a resource curse effect on education is demonstrated by Gylfason (2001) as the study found that natural capital exhibits a negative correlation with public educational expenditure, expected years of schooling for girls, and gross secondary-school enrolment, concluding that natural capital crowds out human capital and slows down growth.

On the contrary, Pineda and Rodriguez (2010) show evidence against a natural resource curse on human development.

Study variables

1. Resource Curse
    a. Colonialism
    b. Civil war
    c. Rent-seeking
    d. Democracy
    e. Institutions
    f. Dutch Disease
2. Education
    a. Fiscal policy
    b. Public spending
    c. Infrastructure
    d. Training and development
    e. Inspection and supervision
    f. Enrolment rate
    g. Knowledge
    h. Employability

8.2 Interview Guide

1. How each variable from Resource Curse impacted the education sector:
    1. **Colonialism**: What was the impact of the educational policy (segregation and selective)?
    2. **Civil war**: What impacts the conflict had on education (infrastructure; public spending)?
    3. **Rent-seeking**: The deleterious effect of rent-seeking; role of elites' interests.
    4. **Democracy**: Can the country can be classified as a democracy? How did it impact the tertiary education?
    5. **Institutions**: What is the quality of institutions; Is there rule of law?
    6. **Dutch Disease**: How the lack of diversification and volatility impacted the tertiary level?
2. Education variables analysis
    1. **Fiscal policy**: It was conducive or not for sector´s performance and living standard conditions?
    2. **Public spending on education**: It was expressive or not considering the sector and country's development needs?
    3. **Infrastructure**: Past and current situation: did situation improved?
    4. **Training and development**: What is the configuration of teaching force (quantity vs quality); What are the sector's incentives, salaries, and career opportunities. Is there appreciation of teachers' value of work?
    5. **Inspection and supervision**: Discuss sector's governance (educational standards; national qualification system; auditing, reporting).
    6. **Enrolment rate**: Discuss the impact of quantity on quality.
    7. **Knowledge**: Investment in research and development; Theoretical vs practical knowledge.
    8. **Employability**: What is quality of new graduates? Is there career guidance (choice of field of study and country needs; job-skills mismatch).
3. Evaluation of the overall quality of tertiary education sector.

8.3 Consent form for the interview

Thesis: *The Resource Curse and Tertiary Education Sector in Angola*

Researcher: Vanessa Karina Pereira Carrilho **Institution: Wits Business School (WBS)** **Student umber: 1570475**

Thank you for your interest in participating in this research. Kindly read the information sheet provided separately before you agree to take part. Feel free to request any clarifications regarding the information sheet before you decide whether to participate. Please complete the form by filling the boxes with ‘x'. A copy of this consent form will be given to you to keep for future reference.

PARTICIPANT’S STATEMENT	
	I have read the information sheet and understand the purpose of the research.
	I understand that I have the right to choose to answer or not certain questions that might constitute a sensible subject, topic or matter.
	I consent to the processing of my personal information for the purposes of this research. I understand that such information will be treated as confidential.
	I understand that the information I share and discuss, including direct quotes, may be included in any resulting report.
	I understand that my participation will be audio recorded for accuracy and I consent to the use of this material as part of the project.

	I agree the project name above has been explained to me to my satisfaction and I agree to take part in the research.
	I agree that by writing my name and email and sending back the present document will be sufficient to count as legal signature and as an agreement to participate in the research.

NAME	
DATE	
EMAIL	