Natural Resources, Love of Money, and Democratic Republic of the Congo's Competitive Disadvantage

Richard Mpoyi
Middle Tennessee State University

The Democratic Republic of the Congo is a 'geological scandal'. It has mineral reserves worth an estimated US$24 trillion. Also, it has in abundance several other natural resources. Based on Forbes Global 2000, a ranking of the world's most competitive 2,000 companies, the paper attempts to understand why, despites its potentials, Congo has no globally competitive companies. The paper uses two models, Michael Porter's 'national competitive advantage', and behavioral economics' model of 'love of money', to argue that extractive institutions devised by the Congolese elite in power, along with rampant corruption, prevent the emergence of modern industrial enterprises in the country. The paper ends with the hope that Congo's newly-elected government improve good governance by restructuring political and economic institutions so Congolese companies will have a chance to create global competitive advantage in the mining sector where Congo has a comparative advantage.

Keywords: love of money, natural resources, extractive institutions, competitive disadvantage

INTRODUCTION

The global economic competitiveness shows a clear dominance of developed nations and their companies. For instance, although their population represented about 17% of the world, developed nations' share of the global economy surpassed 60% in 2017. With the rise of China and a few other emerging economies, the standing of developing nations is improving. Africa is however at a remarkable competitive disadvantage. While they are home to over 14% of the population, African nations are so poor that they accounted for less than 2% of world economy. No nation illustrates Africa's poverty better than the Democratic Republic of the Congo (DR Congo, Congo, or DRC are interchangeably used).

With immense mineral reserves valued at more than US$24 trillion (De Wit, Gouillocheau, & De Wit, 2015; Lezhnev, 2016; Pham, 2014), DR Congo should be one of the richest countries in the developing world. Unfortunately, to use the words of Peter Pham, Director of the Atlantic Council's Africa Center, "Instead of prosperity, the Congo's wealth has brought a seemingly endless procession of unscrupulous adventurers eager to exploit its riches" (The Hill, June 17, 2014).

Despites its abundant natural resources, the relentless pursuit of wealth by both local political leaders and their foreign backers has resulted in devastating consequences. Brutal exploitation of minerals has fueled armed conflicts that has killed well over 5 million people, the world's deadliest humanitarian disaster since World War II. The impact of 'conflict minerals' puts Congo at the bottom of the United Nations Development Program's Human Development Index. In addition, with a per capita income of

US$463 in 2017, the World Bank (2019) ranked DR Congo number 180 out of 186 countries included in its database.

The purpose of this paper is to examine why the actions taken by the political elite in power in Congo is preventing or undermining the emergence of competitive companies, especially in the mineral sector where the country has a comparative advantage. The theoretical framework used in support of the paper's arguments will be based on two models, Michael Porter's national diamond, and behavioral economics theory of love of money.

THE GLOBAL COMPETITIVE LANDSCAPE

Every year, a few organizations compile the list of the biggest and most competitive companies in the world. One such organization is Fortune magazine that ranks the largest 500 companies (Fortune Global 500). However, Forbes is a much more comprehensive magazine in that it ranks the biggest 2,000 companies based on the following four metrics: sales, profits, assets, and market value. In its most recent ranking (Forbes, 2019), the biggest companies were from 61 countries. Table 1 breaks down the most competitive companies for major economies.

TABLE 1
FORBES GLOBAL 2000 FOR MAJOR ECONOMIES (2019)

Rank	Country	Companies	
		Number	%
1	United States	575	28.75
2	China	309	15.45
3	Japan	223	11.15
4	United Kingdom	81	4.05
5	South Korea	62	3.10
6	France	57	2.85
7	India	57	2.85
8	Canada	56	2.80
9	Germany	53	2.65
10	Taiwan	47	2.35
N/A	All other countries	480	24.00
N/A	Total	2,000	100.00

Source: Forbes Online database.

As expected, Table 1 shows that the United States had the largest number of the most competitive companies. Of the 2,000 companies, the United States was home to 575 (28.75%) companies. China (Hong Kong was included as it is now part of China) was second with 309 (15.45%) firms. It is worth noting that when Forbes first published its ranking in 2003, China and Hong Kong had together 43 companies, representing only 2.15%. Japan came after China with 223 firms. The other countries with several globally competitive companies were from Asia, Western Europe, and North America. Africa has 54 countries, the most of any continent. However, only five of those countries had together 19 competitive companies. South Africa had the most (12 companies). None of the 2,000 most competitive companies was from DR Congo.

Scholars of competitive advantage have developed models to explain why companies from some countries are more competitive than others are, and why some industries within nations are more competitive than others are. Perhaps the most renowned researcher in this area is Michael Porter. In his 'National Diamond' model, Porter (1990, 1998) advances that national home base plays a key role in

shaping the extent to which a company is likely to achieve global competitive advantage. For Porter, the standing of a nation in four factors will either support or hinder the ability of companies to create global competitive advantage. The four factors are factor endowments, demand conditions, related and supporting industries, and firm strategy, structure and rivalry (these factors have been extensively examined in the literature, therefore, they will not be discussed in this paper).

Porter's national diamond can be illustrated as follows. If for example a nation's demand conditions (size and nature of the customer base) are strong in a given industry, companies operating in that industry would tend to be more competitive, and the nation would be more competitive in that industry as well. The United States has the largest and most diversified economy in the world. It is also well positioned in all four factors of the national diamond. This explains why it has the largest number of the most competitive companies. Countries with several competitive companies stand strong in all, most or some of the four factors. This is the case with several developed economies of Western Europe (e.g. France, Germany and the United Kingdom), of Asia (Japan, South Korea and Taiwan), and North America (Canada, and of course the United States). Also, a small but growing number of emerging economies are becoming globally competitive (for instance China and India).

COMPARATIVE ADVANTAGE VERSUS COMPETITIVE ADVANTAGE

Grounded in the work of David Ricardo (1817), the theory of comparative advantage suggests that a country will tend to produce and export goods which utilize the factors of production that the country has in relative abundance (Henry, 2018). Depending on the industry, factors of production can be land, raw materials and other natural resources, labor, and capital. To explain how a country can achieve national competitive advantage, Michael Porter (1990) introduced the concept of human effort to Ricardo's factors of production, which he called factor conditions. Factor conditions (also referred to as factor endowments) are a country's use of its factors of production that enable it to compete in an industry (Henry, 2018). The use of factors of production is based on a country's skilled labor and/or technological capability.

In today's global competition, factors of production, regardless of how abundant they may be, are far less important in determining national competitive advantage. This means that factors of production on their own are not a powerful source of national competitive advantage. According to Porter's national diamond model, human effort, more than natural conditions, is key to the creation of national competitive advantage. In other words, the way factors of production (e.g. minerals and other natural resources) are used will determine whether a country can achieve national competitive advantage. How factors of production are used is dependent on human effort, which is defined in terms of managerial and technical skills, as well as technological capability (Thompson, Peteraf, Gamble, & Strickland, 2020).

The extent to which human effort is crucial to competitiveness varies among economic sectors. Forbes Global 2000 list is divided into 81 sectors. A breakdown of competitive companies by sector tends to support the national diamond proposition. At the top was the banking and other financials sector with 453 firms (22.65%). The banking and financials sector is service-intensive and labor needed to perform tasks is more skilled with technical capability. The technology sector (i.e. high-tech industries) was second with 154 firms (7.70%), followed by the construction sector (123 firms or 6.15%). Although Forbes ranking is comprised of 81 sectors, these three sectors (that is less than 4% of all sectors) accounted for over a third (36.5%) of the most competitive companies in the world. In comparison to developing economies, developed economies have more skilled labor. This is the reason why most competitive companies are from developed nations (see Table 1 above).

A look at Forbes Global 2000 reveals however that some firms from developing nations were able to create competitive advantage simply by exploiting natural resources. Table 2 B E L O W provides examples of developing countries with globally competitive companies. It is worth noting that the dominant natural resources in which developing nations had competitive companies were oil and natural gas. In Forbes Global 2000, the oil and gas sector had 110 companies (5.5%).

It is widely known that DR Congo is home to an extensive wealth of natural resources (Global Business Reports, 2013). In their research titled ‘Geology and resource potential of the Congo Basin’, De Wit, Guillocheau and De Wit (2015) argue that “By all accounts, the Congo is a mineral superpower” (p. xx). It has abundant reserves of a variety of minerals (see next section for details). It also has several other natural resources. It is home to the world’s second largest forest and second biggest river. It is rich with wildlife, numerous rivers and lakes, and arable land. Congo is Africa’s second largest country with a population of more than 80 million and nine neighboring countries. In the Global Business Reports, one can read that DR Congo “… has the potential to become rich beyond imagination.” (p. 2). The fact that the country has no competitive firm in Forbes Global 2000 is therefore puzzling.

TABLE 2
NATURAL RESOURCES, DEVELOPING NATIONS, AND COMPETITIVE ADVANTAGE

NATIONS	CCOMPANIES	MAIN ACTIVITIES	RANK*
Russia	Gazporm	Natural gas	40
	LukOil	Oil and natural gas	97
	Surgutneftegas	Oil and natural gas	330
	Transneft	Oil pipeline (world’s largest)	386
	Tatneft	Oil	524
	Norilsk Nickel	Nickel/palladium (world’s largest producer)	574
	Severstal	Iron ore & steel	925
	RusHydro	Hydroelectricity (world’s second producer)	1957
India	Oil & Natural Gas Corp.	Oil & natural gas	220
	Indian Oil Corp. Ltd.	Oil & natural gas	288
	Coal India	Coal (world’s largest producer)	583
	Bharat Petroleum Corp. Ltd.	Oil & natural gas	628
Brazil	Petrobras	Oil & natural gas	50
	Vale	Iron ore/nickel (world’s largest producer)	139
	Gerdau	Iron ore/steel (Ameciras’ largest producer)	1736
Thailand	PTT PCL Public Co. Ltd.	Oil & natural gas	165
Colombia	Ecopetrol	Oil & other fuel resources	300

Source: Forbes ranking of the world’s most competitive 2,000 companies

DR CONGO: GEOLOGICAL SCANDAL

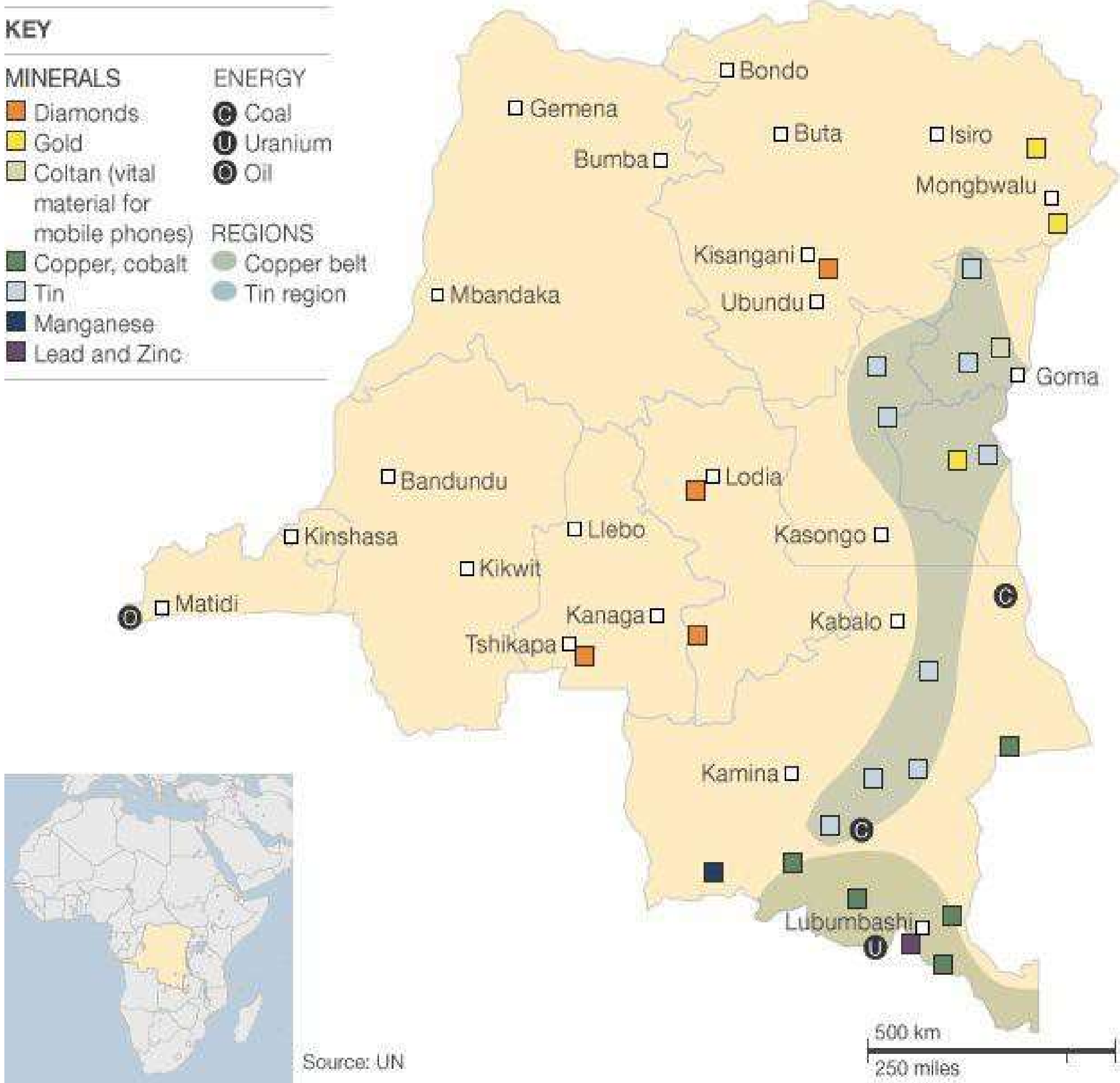
In the 1890s, a Belgian geologist, Rene Jules Cornet, uncovered Congo’s abundant mineral reserves. He then dubbed the territory a ‘veritable geological scandal’ (Morgan, 2009; Pham, 2014; Lezhnev, 2016). Valued at more than $24 trillion, Congo’s mineral reserves are worth more than the Gross Domestic Product of Europe or that of the United States (Global Business Reports, 2013; Morgan, 2009; Pham, 2014). These reserves include 70% of the world’s coltan, more than 45% of its cobalt, 30% of its diamond reserves, methane gas (world’s largest reserves), and second largest reserves of copper after Chile. In addition, the country has vast amounts of other minerals such as gold, crude oil, tin, zinc, and uranium (used in Manhattan project that produced atomic bombs dropped over Japan). Figure 1 below shows DR Congo’s key minerals as well as their geographic location within the country.

Energy potentials are remarkable. Besides oil and gas already mentioned, solar energy (year round sunshine) and wind power can put Congo among the greenest nations in the world. Congo holds substantial non-mineral resources. For example, more than half of Africa’s timber stocks are in Congo.

Earlier the paper identified developing nations (e.g. Russia, India, and Brazil) that have globally competitive companies with activities in the natural resources sectors. Despites abundant natural resources, no Congolese firm is among the 2,000 most competitive companies in the world. One reason for the lack of competitive companies in Congo may be found in the actions taken the government. In Porter's national competitive advantage model, the government plays a key role (Porter, 1990). It must act as a catalyst and challenger. Specifically, the government must both encourage companies to raise their performance, and stimulate local competition by enforcing anti-trust regulations.

Studies have highlighted the role the Congolese government played in discouraging 'formal' businesses and investments. For example, in their research related to poverty in DR Congo, Mpoyi and Nkongolo-Bakenda (2018) have described the actions taken by the government to put in place 'extractive' political and economic institutions so the ruling elite extracts wealth from the population (to understand extractive institutions, refer to Acemoglu & Robinson, 2012). Furthermore, to sustain and perpetuate extractive institutions, the government resists to regulate economic activity and to enforce the laws.

FIGURE 1
DR CONGO: KEY MINERALS' GEOGRAPHIC LOCATIONS



Other policies subtly developed by the Congolese government consisted of shifting mining production from the formal (industrial) to the informal (artisanal) sector (Hancock, 2019). Overtime, these policies achieved the intended results with some success. For example, the artisanal production of minerals was 100% for gold in 2005, 95% for diamond in 2006, and 80% for copper and cobalt in 2005 (United States Geological Survey, 2008). About two centuries ago, trained managers used their organizational capabilities to acquire and consolidate small, artisanal, family-owned businesses into modern industrial enterprises that grew in size to become large multinational corporations of today (Chandler, 1990). Artisanal production favored by the Congolese leadership cannot therefore facilitate the emergence of well-structured companies capable of successfully competing in the new global marketplace dominated by strong multinational enterprises.

The Congolese government has failed to play its role as described in Porter's national diamond model. Public policies of putting in place extractive institutions and of promoting artisanal production cannot lead to the rise of Congolese companies strong enough to achieve global competitive advantage. The motive for the Congolese political elite to skillfully devise anti-business policies can be explained by behavioral economics theory of love of money.

LOVE OF MONEY AND CONGO'S NATIONAL COMPETITIVE DISADVANTAGE

Behavioral economists (e.g. Kahneman, 2011; Chen, Tang, & Tang, 2014) theorize that the love of money stimulates corruption. Corruption involves individuals' behaviors that are risky and dangerous, and that affect social networks at the country and the organization levels. Corruption is not unique to Congo, nor to developing nations. It occurs in all countries.

However, the extent to which individuals adopt risky and dangerous behaviors is dependent on country-specific attitudes toward love of money. Chen, Tang and Tang (2014) suggested that love of money, and the resulting corruption, are exacerbated in nations with extreme poverty. Congo is among these nations (Mpoyi & Nkongolo-Bakenda, 2018).

According to the United Nations Economic Commission for Africa (UNECA), Congo accounted for 13.8% of Africans living below the poverty line ($1.2 per day) (UNECA, 2015). Diseases, hunger and malnutrition, infant and maternal mortality rates were among the highest in the world. In addition, less than 50% of Congolese had access to safe drinking water. The pursuit of wealth coming from the artisanal exploitation and smuggling of minerals led to what the United Nations called Africa World War I. Armed conflicts that broke out late last century until the first several years of the twenty-first century involved numerous Congolese militia groups and nearly a dozen countries. The resulting death toll has surpassed 5 million people, the worst humanitarian crisis since World War II. Low-level civil war is still ongoing in the country, claiming the lives of some 12,000 people a month.

The international community has been trying to help resolve the Congolese crisis. Congo has the largest UN peacekeeping force in the world, some 22,000 troops. With government officials' support, peacekeepers seem however to manage rather than end the conflicts. Billions of dollars from both foreign countries as well as non-governmental organizations have been pouring into the country to ease the sufferings of the Congolese people. To find a sustainable solution, large amounts of financial resources are needed, along with institutional reforms.

Foreign governments and international institutions provided substantial financial aid in an effort to alleviate poverty. Unfortunately, foreign aid had been unsuccessful (Trefon, 2011). International partners misunderstood the complexities of the political culture in Africa. Capitalizing on that misunderstanding, the Congolese authorities skillfully devised deceptive tactics to hamper reforms, stay in power, and then misuse a large percentage of foreign aid. To improve governance, the government restructured the legal framework for doing business by passing laws in the form of codes. Several codes were enacted in the areas of ethics, good conduct, forestry, mining, investment, customs and trade. But, as Trefon noted, these laws were simply a 'masquerade' as they were ignored by political authorities interested only in amassing massive wealth (Nkongolo-Bakenda et al., 2016; Mpoyi & Nkongolo-Bakenda, 2018).

Other researchers interested in reducing poverty proposed inclusiveness through the creation of pluralistic coalitions of power within the civil society. For example, Acemoglu & Robinson (2012) suggested that inclusive coalitions such as civil society associations and non-government organizations would design dynamic and multiform survival strategies related to various aspects of public life where the Congolese state had failed. In the 1990s, civil society associations exploded in Congo (Trefon, 2004).

Unfortunately, as Giovannoni et al. (2004) pointed out, Congo's civil society associations were not immune to corruption. To satisfy their desire for personal success, prestige and power, the leaders of these associations engaged in socially irresponsible practices, including fraud, mismanagement, and violence (Mpoyi & Nkongolo-Bakenda, 2018; Nzeza-Bilakila, 2004). Even worst, Congolese politicians recruited these leaders, thereby making them new members of the political elite by offering them positions in the government or government agencies (Giovannoni et al., 2004).

As the Congo's situation shows, the love of money pulls individuals to fall into temptation and become corrupt. Money is a measure of value. It satisfies individuals' physiological and psychological needs. Congo is a very poor country. Following Maslow's hierarchy of needs theory, lower-level needs (i.e. basic needs) of the vast majority of Congolese are unsatisfied. To survive, extreme poverty pushes people to use any means at their disposal in search of money in order to fulfill those needs. This will result in wide ranging unethical and dishonest practices. The determination to find money and satisfy basic needs pushes less fortunate Congolese to become corrupt.

The satisfaction of lower-level needs (through corruption or not) then transforms people into avaricious individuals who want more money to fulfill higher-level needs. The reason is because higher-level needs (self-esteem and self-actualization) become potent (Lea & Webley, 2006). The presence of money excites individuals' mindset, envy, and dishonesty. In particular, the feeling that one lacks and covets something that another has is likely to result in envy, i.e. the pain at another person's good fortune (Puranik, Koopman, Vough, & Gamache, 2019). Due to pressure, opportunity and rationalization, individuals who have satisfied their lower-level needs fall into the temptation to desire more money so they can satisfy higher-level needs. In turn, aspiration for more money causes individuals to adopt foolish and harmful behaviors, that is, to engage in corruption.

The very few Congolese who have been able to satisfy their lower-level needs aspire to fulfill higher-level needs. Such Congolese are overwhelmingly the political elite in power, their relatives, and their allies in the business community. The love of money and the resulting corruption may be the reason the political and economic environment is dominated by extractive institutions, lawlessness, and widespread existence of the informal sector. Sadly, in such environment, chances that competitive companies would rise in Congo are close to none.

CONCLUDING REMARKS

The paper was an attempt to understand why, despites being well endowed in natural resources, DR Congo was unable to achieve national competitive advantage. Two theories were used to explain Congo's poor showing on the global competitive landscape. From the perspective of Porter's national diamond, the paper argued that the government failed to encourage rivalry and domestic competition, and to enforce strict regulations. Government failure was caused by the political leadership that promoted extractive institutions and informal economy to maximize wealth to the detriment of the mass.

Behavioral economics model of love of money served to explain why corruption was rampant among Congolese leaders. Because they have already satisfied their lower-level needs, the political elite and their allies sought to satisfy their higher-level needs of self-esteem and self- actualization. As the presence of easy money affects individuals' mindset and excites envy and dishonesty, Congolese politicians fell into the temptation to desire more money. The pursuit of more money incentivized the elite in power to engage in corruption by adopting foolish and harmful behaviors.

After holding elections this past December 2018, Congo experienced its first peaceful transfer of power and a new democratically elected political leadership emerged. However, one of the lessons learned from Eastern European and Latin American countries is that new democracies are fragile. Russia

and Venezuela are examples of nations that are still feeling the pain of transitioning from totalitarianism to democracy. But since democracy facilitates the implementation of market economy which is the economic system known for the best allocation of resources, Russia and Venezuela should deploy every effort to complete their transition to a democratic system. Congo is no exception. If DR Congo is to start the creation of national competitive advantage, its new democratically elected leaders need to strengthen the rule of law and implement market reforms.

REFERENCES

Acemoglu, M., & Robinson, J. (2012). *Why nations fail: The origins of power, prosperity, and poverty.* New York: Crown Business.

Chandler, A. (1990). *Scale and scope*. Cambridge, MA: The Belknap Press.

Chen, J., Tang, T., & Tang, N. (2014). Temptation, monetary intelligence (love of money), and environmental context on unethical intentions and cheating. *Journal of Business* Ethics, 123(2), 197-209.

De Wit, M., Guillocheau, F., & De Wit, M. (2015). *Geology and resource potential of the Congo Basin.* New York: Springer.

Giovannoni, M., Trefon, T., Banga, J., & Mwema, C. (2004). Acting on behalf (and in spite) of the state: NGOs and civil society associations in Kinshasa. In T. Trefon (Ed.), *Reinventing order in the Congo: How people respond to state failure in Kinshasa*. London, England: Zed Books.

Global Business Report. (2013, January). Mining in the Democratic Republic of Congo. *Engineering and Mining Journal.* Retrieved June 28, 2019, from http://www.gbreports.com.

Hancock, T. (2019). Importance of artisanal mining increases in DRC. *Mining Weekly*. Retrieved June 28, 2019, from www.miningweekly.com/article.

Henry, A. (2018). *Understanding strategic management.* England: Oxford University Press.

Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar, Strass and Giroux

Lea, S., & Webley, P. (2006). Money as tool, money as drug: The biological psychology of a strong incentive. *Behavioral and Brain Sciences*, 29, 161-209.

Lezhnev, S. (2016). *A criminal state: Understanding and countering institutional corruption and violence in the Democratic Republic of Congo*. Enough Project. Washington. Retrieved November 3, 2016, from http://www.enoughproject.org/about.

Morgan, M. (2009). "DR Congo's $24 trillion fortune". *African Business*, 350. Retrieved June 25, 2019, from https://www.thefreelibrary.com/DR+Congo%27s+%2424+trillion+fortune.-a0193800184.

Mpoyi, R., & Nkongolo-Bakenda, J. (2018). Mixed messages from Africa: Macro-economic performance versus poverty models' tests results. *Journal of Business and Economics*, 9(4), 302-317.

Nkongolo-Bakenda, J, Kazadi, J, Anderson, R., & Horan, H. (2016). Privatization, stakeholder power, and weak institutions: The case of the Democratic Republic of Congo. *World Review of Entrepreneurship and Sustainable Development*, 12(4), 467-492.

Nzeza-Bilakila, A. (2004). The Kinshasa bargain. In T. Trefon (Ed.), *Reinventing order in Congo: How people respond to State failure in Kinshasa.* London, England: Zed Books.

Pham, J. (2014, June 17). In Congo, third time's no charm. *The Hill.*

Porter, M. (1998). *The competitive advantage of nations.* Second Ed, New York: Free Press. (First Ed. New York: Free Press, 1990).

Puranik, H., Koopman, J., Vough, H., & Gamache, D. (2019). They want what I've got (I think): The causes and consequence of attributing coworker behavior to envy. *Academy of Management Review*, 44(2). Retrieved June 18, 2019, from https://journals.aom.org/doi/full/10.5465/amr.2016.0191.

Ricardo, D. (1817). *On the principles of political economy and taxation.* London, England: Cambridge University Press.

Thompson, A., Peteraf, M., Gamble, J., & Strickland, A. (2020). *Crafting and executing strategy. Quest for competitive advantage.* New York: McGraw-Hill Education.

Trefon, T. (2011). *Congo masquerade: The political culture of aid inefficiency and reform failure*. London, England: Zed Books.

UN Economic Commission for Africa. (2015). *MDG Report 2015: Assessing progress in Africa toward the millennium development goals*. United Nations. Retrieved August 23, 2016, from http://uneca.org/publications/mdgreport2015