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AFRICAN ECONOMIC PARADOX: INDUSTRIALIZATION CREATING JOBS AND ADDED VALUE OR ACTIVE PARTICIPATION IN GLOBAL VALUE CHAINS: WHAT SOLUTIONS TO DEVELOP FOR THE LESS ADVANCED AND LANDLOCKED COUNTRIES LIKE BURKINA FASO?

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ABSTRACT

The United Nations Economic Commission for Africa (2016) calls for resources for the implementation of the Action Plan for Accelerated Industrial Development in Africa, and states that: “Industrialization is essential for African countries as a means of increasing income, creating jobs, developing value-added activities and diversifying economies”. The United Nations Development Program (UNDP), the African Development Bank (AFDB), and the Organization for Cooperation and Economics Development (OCED, 2014, p. 16) explain the benefits to African countries’ participation in Global Value Chains (GVC) to industrialize without having to implement all stages of the chain.

They add that the acquisition of new production capacities can allow countries and companies to move upmarket, which is to say to increase their share of value added in a GVC. But the opposite is the case, at least in some countries like Burkina Faso. We are witnessing a “specialization of primary products (cotton and non-monetary gold), to the detriment of manufacturing industry with high potential for multiplier effects on local economies” National Plan for Economic and Social Development of Burkina Faso (PNDES, 2017, p.12). Cusolito and al. (2016) mention that overcoming a series of obstacles (such as bad policies and governance, insufficient technology and skills) is the way to actively participate in GVCs. Yet

it is these same obstacles that have always prevented the industrialization of Sub-Saharan Africa (excluding South Africa).

The results show that the Global Value Chains (GVC) contribute to the creation of added value in developing countries what has an effect on industrialization.

Keywords: Economic Paradox, Global Value Chains, Added Value, Industrialization

INTRODUCTION

Classical economic theory, starting with the theory of absolute advantage (Smith, 1776) suggests that for the benefit of all, each country must devote itself to the production of goods for which it has an advantage compared to the other participating countries. However, Guerrero (1995) notes that goods are produced all over the world by capitalist enterprises which seek in the first term to make profits. This is why, instead of worrying about what is desirable for all, producers in the most efficient countries in the absolute sense of the term are ravaging other markets with their goods, simply because they are capable of producing them, cheaper. Gereffi and Fernandez-Stark (2011, p. 3) explain that: *"For many countries, particularly low-income countries, the ability to integrate effectively into the World Value Chains is an essential condition for their development"*.

According to INSEE (2017), the value added for a company corresponds to production less intermediate consumption is closely linked to GDP, which is made up of the sum of companies' added values plus indirect taxes and customs duties. For Dunning and Lundan (2008, p. 607) one of the main objectives of any country is to maximize the National Added Value (NPV) from the use of a given quantity of resources and capacities ". If a country wants to increase its NPV, it can do so by attracting foreign investment which will increase revenues from domestic production and subsequently its level of production and export. To encourage national or foreign companies to invest, it has the capacity to act on production costs "C", on taxes "T" or subsidies "S". It is this ability to encourage companies to invest in a country that Porter (1991), calls the competitive advantage. If one defines development as long-term and self-sustained economic growth (wealth, technology, infrastructure, democracies, freedoms, knowledge, arts, etc.) made available to businesses and residents of each country, it is good to consider technology and also the external opening and facilitation of business by the State (infrastructure and productive investments, reliable justice, education and research) which determine development, that is to say the subsistence economy, the commercial economy, the emerging market, and finally the economy based on technology. International organizations such as AFDB, OCED and UNDP (2017, p.120) indicate that " ... *when combined with accelerated urbanization, the very large increase in the working age population can lead to industrialization* "; and indicates that *"Only industrialization can create the conditions for an unconditional convergence of the African continent with the most advanced economies"*. For Fukunishi (2004, p. 1) the success of Asian countries has shown that intensive labor-industries can lead to economic growth in the early stages of economic development, through the use of a docile and worker with relatively low labor costs.

Indeed, manufactured products always have upstream and downstream links with other sectors that can generate positive benefits for the economy as a whole. However, as Maliactu (2016) shows, the SMIG of Burkina Faso, like that of its neighbors, Niger or Mali, is less than € 50

per month. It is therefore an opportunity for development. The main question is: Why are companies importing products rather than focusing on local material transformation? The main objective is to examine if the Global Value Chains (GVC) contribute to the creation of added value in developing countries.

LITERATURE REVIEW

Value Chains and the Development of Added Value

The value chain is a concept created by Michael Porter in 1980 whose systematic approach aims to examine the development of competitive advantages. The chain consists of a series of activities that add value. They result in the total value provided by a company. Porter (1991) has been the first to popularize the Chains of Global Value (GVC) with the term "Global Value Chains" (GVC) by studying the value added at country level and the competitiveness between them through their businesses. Although the role of countries in this competition is becoming more and more passive, because the transport revolution and relocation imply a multiple interlocking of different production and service activities worldwide.

Organization of Value Chains.

To understand the Global Value Chains, Gereffi and Fernandez Stark (2011) simplify it by using a diagram, as in the example follows:

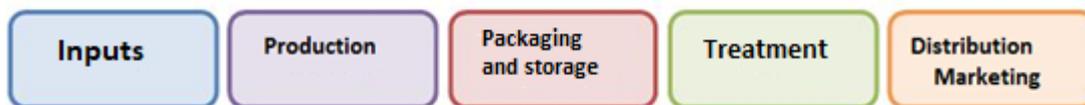


Figure 1: Segment of the Global Value Chain for Fruit and Vegetables
Source: Gereffi and Fernandez-Stark (2011)

It must however be taken into account that the different segments of this chain contain a great diversity of activities and economic operators, close or geographically distant, and with very different negotiation forces, as it is shown below:

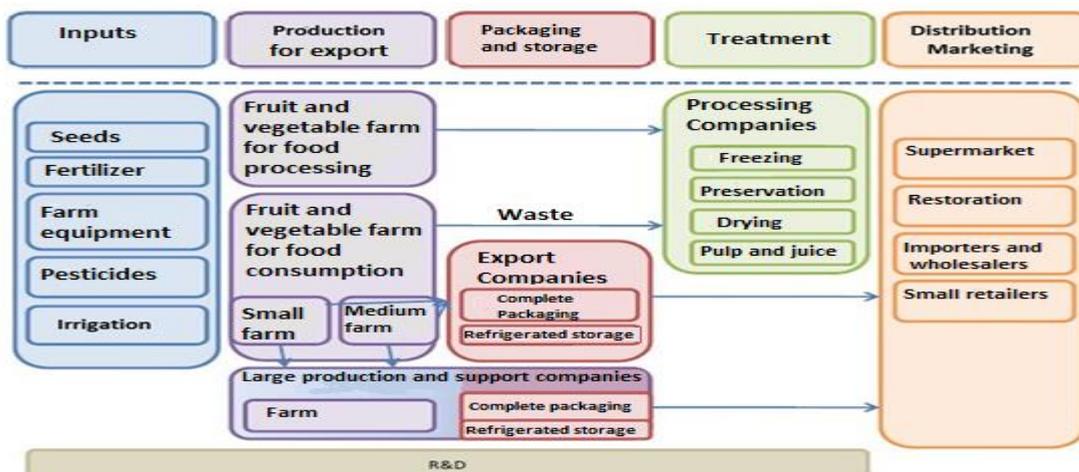


Figure 2: Components of the Segments of the Global Value Chain
Source: Gereffi and Fernandez-Stark (2011)

Kaplinsky and Morris (2002) explain that there are two different types of GVC. The first consists of the so-called “vertical specialization” chains, in which the different components can be produced in parallel, the cost of transport is relatively low and the intermediate products are not degraded. For example, Jeans. The second type is made up of so-called “additive” value chains in which the various stages of production are necessarily sequenced, the cost of transport is relatively high and the intermediate products can deteriorate. These value chains mainly concern the natural resources sector (agriculture, minerals and metals, energy).

Baldwin and Venables (2010) analyze and characterize in turn the organization of GVCs: for them, there are snakes and spiders. The snakes are the processes whose steps must follow a logical or scientific, and spiders imply the assembly of parts in no particular order.

Value chains often have a geographic distribution that takes into account the specific advantages of each country:

- climate and hand labor cheap for production agricultural;
- cheap skilled labor and good logistics for processing;
- technology and purchasing power for finishing and release for consumption.

This is what one can see in the following diagram:

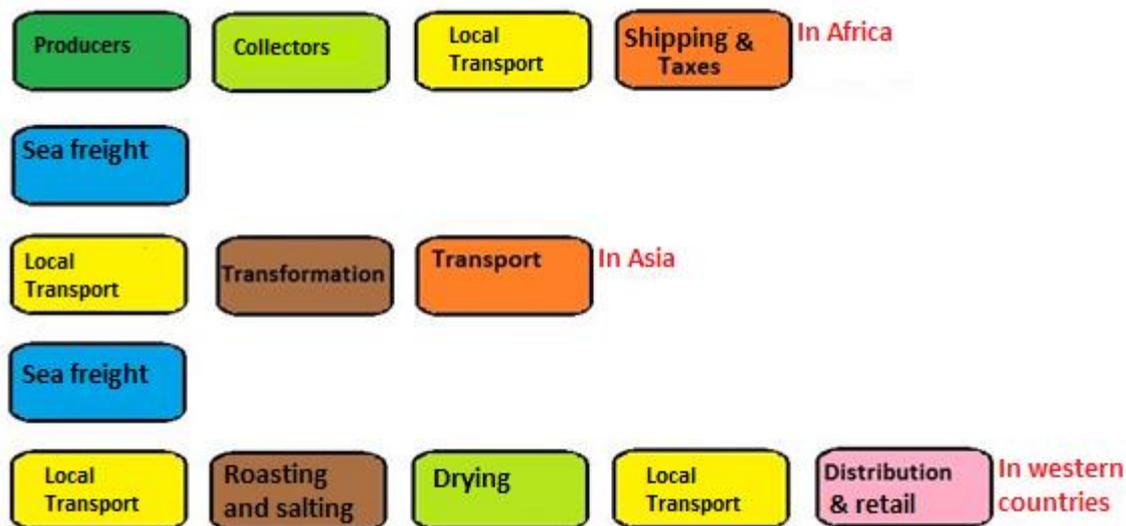


Figure 3: African Cashew (Cashew) Value Chain

Source: Adaptation from Ricau (2013) * for 95% of the Cashew Production from Africa

The globalization of chains value has indeed caused an international division of labor in which the functions creating the most value (design, R & D, branding, marketing, logistics, financial services ...) have focused in leaders companies to file located in developed countries, while a number of countries to revenue means (China, India, Mexico) have been able to create manufacturing companies (and industries and services to provide) can produce much and cheaper. However, the reduction in transport costs and the ease of controlling activities over the Internet have led to an increasingly significant fragmentation of the production process, which prompted Krugman (1995) to use some terms like "slicing the value chain" this is to say that the international decomposition of the chain value is one of the most important facts of the current global trade.

Advances in Development through Value Chains.

It is possible for a country to obtain a greater share of the value added of a chain of global value if it is able to achieve a qualitative leap in the activities it performs. Its companies can go from the simple production of agricultural products, to their first transformation, to the realization of international logistics operations or to distribution on foreign markets. This qualitative leap ("upgrading" in English) is defined by Gereffi (2005, p. 171) "*the process by which economic actors - companies and workers - pass from activities of low value to others relatively high in GVC*". Kaplinsky and Morris (2002, p. 38) define 4 different kinds of qualitative leaps, which they classify hierarchically from the least important to the most important:

- the qualitative leap in process: improving the production process, for example with less waste, with more targeted distribution and without delivery delays...
- the qualitative leap in product: the improvement of the company's old products or the introduction of new ones, with of course new production processes for these new products...
- the functional qualitative leap: the increase in added value linked to the development of new functions in the value chain, such as design, and the subcontracting of others.
- the qualitative leap in the chain: the wise step towards a new, more remunerative value chain, for example moving from manufacturing radios to TVs, or calculators to computers.

In other words, this development involves the incorporation of activities upstream (from the control of inputs) and downstream (until purchase by the end consumer). This is what certain countries, particularly Asian ones, have managed to do while others have remained at less advanced stages. Below is an example from the fruit and vegetable sector (See Figure 4 below).



Figure 4: Different Stages of Activities Development

Source: Gereffi and Fernandez-Stark (2011)

From the data of Ricau (2013) as presented on Figure 5 the added value of each segment of the value chain of Cashew Nuts (Cashew).



Figure 5: African Cashew Nuts (Cashew) Value Chain and its Added Value for Each Segment
 Source: Adapted from Ricau (2013) as for the Previous Figure.

Africa that abounds in raw materials, should try to go upmarket as for example did a mining supplier in Chile: by passing from simple merchant importer to service provider then to manufacturer, designer of mining drilling equipment and exporter of most of its production. In the following graph, the authors associate the increase in value added with that of the technology incorporated in sales and the level of competitiveness with the share of exports in turnover.

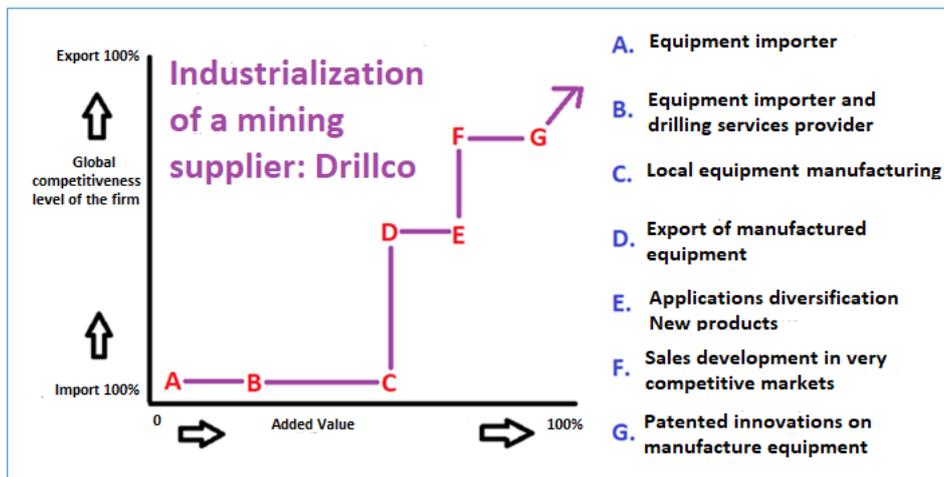


Figure 6: Upmarket in a GVC by Industrialization.
 Source: Free Adaptation from Farole and Winkler (2014).

Development in Practice in the Context of Burkina Faso

With an annual population growth rate of 3% and an average of 6 children per woman, Burkina Faso (like the other countries of Sahel) shows an uncontrolled increase in population, which constantly limits the benefits of growth economic (with recurrent stagnation in GDP per capita) all the more so since the establishment of transport, health and education infrastructure has not kept pace.

The PNDES (2017, p.19) considers that "the current demographic dynamic in Burkina Faso does not present opportunities for the economy to take advantage of the demographic dividend". The gold boom in Burkina Faso has almost no induced effects on the growth of other sectors in Burkina Faso, and owes its strength to the crisis in the world economy, especially since the costs of extracting this ore there are comparatively higher than in many other countries. This situation masks the problem of the overall viability of the country which,

without this windfall, would have entered what Azariadis and Stachurski (2005) define as a poverty trap, which applies to "non-viable" countries without the indefinite permanence of development aid in its many forms. It should be remembered that Burkina Faso had already been considered "unsustainable" in 1932 and carved up by France in 3 regions annexed to each of the neighboring colonies (Mali, Ivory Coast and Niger) until the beginning of the cold war. Always due to colonization, the organization of trade was done by force for the benefit of European cities which exported manufactured products to the least developed regions of the world, against the importation of cheap primary products. Even today, according to the Economist of Faso (2016) 60% of Burkina Faso's exports go to Europe, while there is only 16% to Africa.

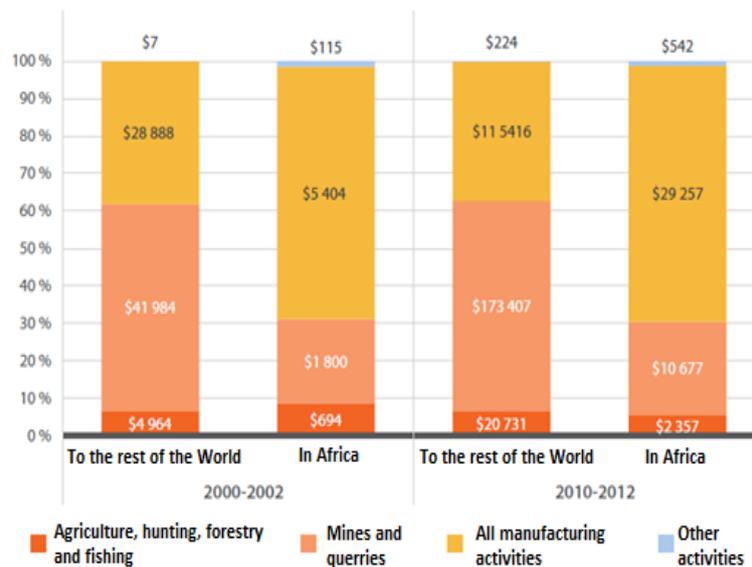


Figure 7: African Exports of Intermediate Products by Main Sector and Destination

Source: United Nations Economic Commission for Africa (2015, p. 112)

As it can be seen on the previous graph, trade is increasing in Africa and the rest of the world, but the proportions and directions are still unchanged today. When African countries embarked on industrialization policies after independence, they found themselves faced with management problems for which they had neither qualified personnel nor accumulated experience. And as Krueger (1974) indicates, many abuses of power have taken place leading to unproductive activities and to reversals which have plagued many companies, due to the low weight of civil society, institutions and justice. This is why industrial policy is considered by Hallward-Driemeier and Pritchett (2015) having a speed effect on growth, but most countries, especially those who most need growth, lack the means to implement it. Regnier (2007) explains how the economic success of the 4 Dragons has spilled over into an Asian model of development, based on the massive export of manufactured goods at low prices. Which makes Porter (1991) say that "All exports from less developed countries tend to be linked to (low) factor costs and price competition... without a strategy that has beyond these advantages, the countries in this situation will face a constant threat of losing their competitive position". This can even lead to an impoverishing growth, such as Bangladesh and the Dominican Republic whose competition within the GVC as subcontractors manufacturing is

based on the wage offer cheaper each time. However, in the smallest and least developed countries, the local actors targeted by the GVC leaders, as Dunning and Lundan (2008, p. 607) explain, are short of knowledge and economic resources. This prevents them from going up in rank.

However, it is difficult to generate the professional skills necessary to take advantage of GVCs while the less advanced countries of Sub-Saharan Africa face worrying demographic challenges including that of training (for example in Burkina Faso according to INSD (2017): the literacy rate of adults aged 15 and over in 2014 was estimated at 34.5% and the success rate at BEPC was 29% in 2016).

At the same time, changes in the distribution of going their added within many chain 's value is to reduce the value added in producing and performing a first processing and its rise in the country consumers. Table 1 shows the data on the evolution of the added value of a basket of 12 food products collected by Willoughby and Gore (2018): Avocados (Peru), bananas (Ecuador), canned tuna (Thailand), cocoa (Ivory Coast), coffee (Colombia), grapes (South Africa), green beans (Kenya), juice 'orange (Brazil), rice (Thailand), shrimp (Vietnam), tea (India), tomatoes (Morocco) .

Table 1

Data on the Evolution of the Added Value of a Basket of 12 Food Products

	1996-1998	2015
Cost of inputs	3.9%	6.7%
Production and logistics	52.5%	45.0%
Supermarkets	43.5%	48.3%

Source: Elaboration Using Data from Willoughby and Gore (2018)

Which gives us the following graph:

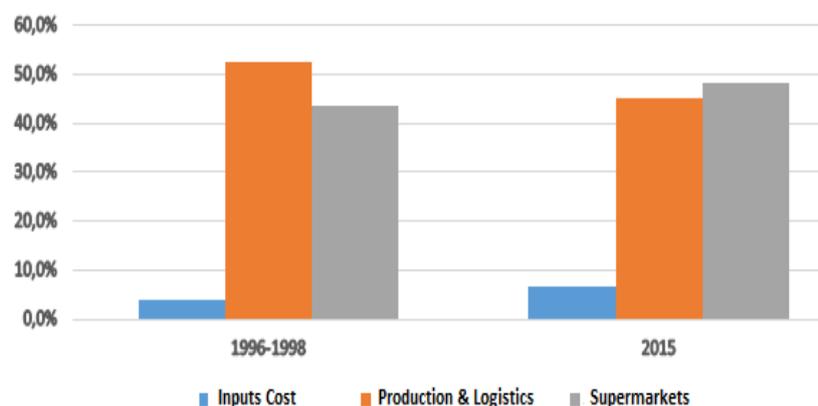


Figure 8: Evolution of the Sharing of Added Value in 12 Global Food Value Chains

Source: Elaboration Using Data from Willoughby and Gore (2018)

This phenomenon is generalized, with more serious cases than the others. Ambrosus Technologies GmbH (2018), citing Fairtrade International, reports that global coffee revenues increased from \$ 30 billion to \$ 81 billion from 1991 to 2016, while those of coffee producers divided by 4 during the same period.

It affects most value chains, since the share of added value that goes to production and logistics companies has also decreased in manufacturing companies. Indeed, *Economie Matin* (2014) explains that in the textile and clothing market, the distribution of added value is 45% for the retailer, 40% for the brand, 5% for logistics, and 10% for production (have wages 1.5 to 3%). It is dominated by 4 multinationals: Hennes & Mauritz (H&M), Inditex, Gap Inc. and Fast Retailing. This is why many GVCs are at high risk of dependence, that is to say that the main buyer in the chain takes more than 35% of production. This dependence manifests itself in the acceptance of suffering losses to remain active in GVC, as it can be seen on the following table 2:

Table 2:
Global Value Chain (GVC) Suppliers in 2015

GVC suppliers	All sectors combined	Textile sector
Often accept prices below their production costs.	39%	52%
Main reason for selling at a loss : trying to secure future orders	77%	81%
High risk of dependence (the main buyer in the GVC takes more than 35% of the production) *	54%	75%

Source: Vaughan-Whitehead and Pinedo(2017)

The strength of leading companies in GVCs is often based on unfair commercial practices (PCD) detailed by the European Commission (2018):

- order cancellations at very short notice;
- unilateral and retroactive modification of the terms of the supply contract;
- the obligation made to suppliers by buyers to pay for their unsold goods, storage, exhibition, referencing or promotion of products.

We have noticed an increasingly unequal distribution of added value in GVCs, to the benefit of leading companies which are able to impose very harsh conditions on all those who want to participate. Ajmal and al. (2015) note that it is the very structure of GVCs, with a multitude of potential suppliers around the world that makes it easy to change them while facing very low costs to do so. And it is quite possible that new technologies (which are available mainly to leading companies) reinforce this trend towards the concentration of added value by enabling new savings to be made throughout GVCs. So, Wilson and Auchard (2018) inform that Carrefour has implemented a blockchain system (defined by Balva, 2018). CAS storage technology and transmission of cryptographic related information developed by IBM to increase the traceability of the origin of all its fresh food products and quickly identify the responsibilities (company and supplier country) in the event of detection of quality problems. Yeretian (2016) explains that the blockchain brings to the attention of all users (in this case partners, suppliers and actors involved in the value chain) the prices charged at each level, the qualities and volumes committed and the progress of the process for each order. Blockchain is therefore a tool to reduce the costs and disputes related to the delivery of goods, corruption and fraud, but also it removes intermediaries on the basis of mutual trust between producers and consumers. It is the whole relational fabric of African society that will be called into question.

Paradoxes or Working Assumption

Farcis (2006) reports on the words of the director of the Least Developed Countries (LDCs) program of the United Nations Conference on Trade and Development (UNCTAD), Habib Ouane : “The market sector in LDCs is characterized by the juxtaposition of micro-enterprises, which do not create jobs and do not absorb foreign technologies and subsidiaries of large foreign companies, in small numbers ”. The missing link preventing the replication of the development parameters tried with success elsewhere could be a dense network of formal small and medium-sized enterprises, capable of importing and locally adapting technologies to produce goods and services with high added value, and create sustainable jobs.

Fukunishi (2004, p. 13) indicates that the ability to improve the competitiveness of the factors of production is beyond the reach of governments in the short term. And that in the absence of studies measuring the factors of production, the reality of sub-Saharan African economies cannot be explained by the different economic theories, but rather by the imperfections of these markets.

Kerrazi (2015, p. 2) explains that in Africa, the integration of countries in GVCs is high, but it is almost not accompanied by creation of added value for the economies of these countries. Farole and Winkler (2014, p. 259) indeed point out that if GVCs offer wider possibilities for attracting Foreign Direct Investment (FDI), they actually pose new, often insurmountable barriers for the local creation of added value. This is due to the quality standards (or technological level) of companies that have materialized FDI which limit their collaboration with local companies.

In line with these observations, we are witnessing in Burkina Faso a manufacturing deindustrialization linked to the decrease in the local added value of these activities, as confirmed by the PNDES (2017, p. 11) "The marked drop in the contribution of modern manufacturing industries other than cotton ginning goes from 13.9% over the 1986-1990 period to 1.2% over the 2011-2015 period". These figures for sectoral contribution to GDP are very close to those based on the turnover of the country's main companies, given by the "Maison de l'Entreprise" (2016), but what is particularly shocking is the comparison between exportable manufactured products and the import of finished products manufactured abroad which represents almost 40% of their turnover, as indicated on Table 3 below, based on the tax returns of large companies at the end of 2013:

Table 3

Activity and Turnover of the 500 Largest Companies in Burkina Faso (2013)

Business activity of Burkina Faso	% of turnover of 500+ large companies
Processing of partly exported local products (cotton ginning not considered).	1.32%
Processing of imported products	6.31%
Export of raw local products	21.28%
Import of finished products	38.08%

Source: Néré File from the 'Maison de l'Entreprise' of Burkina Faso (2016)

It is true that turnover is not an indicator of the profitability of a company, but the craze for an activity is one. What is even more symptomatic is to check in the directory produced by the Maison de l'Entreprise (2016) that among the top 30 companies in Burkina Faso in terms of

turnover (60% of turnover of the 500 most important companies of the country, that is more than 3000 billion FCFA) we do not find any manufacturing company (public monopoly of ginning of cotton excluded).

Theory of Disruptive Innovation

The theory of disruptive innovation is opposed to the theory of sustaining innovation. With a world that is becoming highly competitive (Nasse, 2019; Nasse and Sawadogo, 2019; Nasse, 2015), innovation is a must for the survival of some companies and organizations. The origin of this theory is to be found in the works of Clayton Christensen in the 1990s. The researchers that defend this theory find that the way of driving innovation should be a driving force that increase the overall performance of the companies and thus, it should be an additive value for the companies as well as a competitive advantage (Porter, 1996) to make a difference with the competition (Christensen, 1997; Christensen, 2003; Alshenqeeti, and Inderawati, 2020). Disruptive innovation is more practiced by *'entrants'* rather than *'incumbents'* as its focus is smaller segments and because the margin of profit is small (Christensen et al., 2018). However, innovation alone cannot explain the competitiveness of a given company or organisation.

METHODOLOGY

Research Design

This is a qualitative research based on a constructivist epistemological posture. According to Nasse (2018) qualitative approach allows the researcher to gain more information on the fieldwork.

Context: The research is carried in Ouagadougou, the capital city of Burkina Faso. The city of Ouagadougou has a lot of number of companies and managers. The sectors of activities are also numerous.

Research Procedures and Sample Size

Among the companies for which the author has worked as a consultant, are analyzed and compared, ranging from informal to large limited companies or anonymous, roughly all of medium and large enterprises in terms of sales. Their apparent success was measured by two factors: the sales growth of business and the increase in staff over 3 consecutive years but not necessarily the same in 2010-2016. Indeed, all the consultations did not take place at the same time, but rather successively within the range. The companies were compared using management ratios (liquidity, solvency, export propensity, productivity and profitability, broken down in the latter case using the Dupont method). Given that this is confidential information, the commercial names of the companies are not revealed, but designated in an alphanumeric manner. Individual interviews with the managers of these companies were carried out in order to identify critical factors to their success. They were then grouped together to obtain the following list of 12 critical success factors for businesses in Africa:

- recruitment procedures
- staff motivation
- organizational skills
- management style
- product quality and commercial competitiveness
- relational capital
- practical management
- modern management

- strategic positioning
- choosing the most profitable activity
- tool performance (including control of production and distribution costs)
- the entrepreneur's vision

The importance of each critical success factor was determined with an indicative score of 0 to 10 each, but also of its components or indicators. After a first failure in 2014, linked to the fact of asking open-ended questions, this research gave rise to a questionnaire of 45 questions grouping in the form of statements to validate or deny sentences relating to each of the components of the factors of success, plus questions characterizing the respondents (age, sector, turnover, level of education, gender, nationality, etc.). The questionnaire was carried out with the participation of 258 managers and owners of exclusively African businesses who came to participate in the Africallia shows of 2016 and 2018, in Ouagadougou.

Primary Data Collection

The question analyzed in this article is based on the 2018 survey, which expresses 129 valid results provided by owner managers (70%) or simple managers of businesses, all of them exclusively African, who mainly came to seek technical partners during their participation in Africallia with, among the interviewees, 95% of companies formally registered, 68% of people having followed university studies, 82% of businessmen and women of Burkina Faso nationality and 18% coming from other African countries, 83 % of men and 17% of women, with ages overwhelmingly between 28 and 52 (for 86% of the responses).

Secondary Data Gathering

Secondary data were used to supplement the primary data. The secondary data is from several sources such as documents and research papers that are cited here. This data is analyzed for the purpose of the present research.

Ethical Considerations

In this process, certain sensitive data related to companies cannot be made public because of their confidential nature.

RESULTS AND DISCUSSION

In surveys conducted in 129 of Burkina Faso businessmen (during Forum Africallia 2016) they stated that the most profitable economic sectors and less risky s are in the following order:

1. Import companies of finished products
2. Export companies of raw products
3. Companies importing products to be processed locally
4. Export companies of processed local products

This same field study confirmed (by crossing the responses of businessmen surveyed on their turnover and their sector of activity) that it is trade and services activities that are both the most numerous and those that make it possible to achieve larger turnover, followed by construction, agribusiness and lastly, industry, as shown in the following graph :

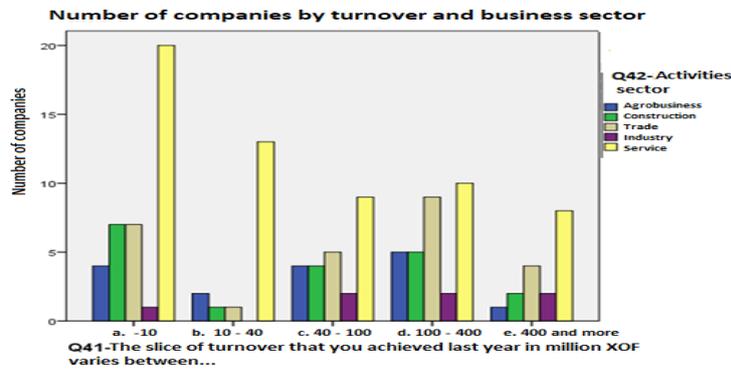


Figure 9: Attraction and Business by Sector of Activity

Source: Field Study, 2018

The fact that businessmen see no profitability in processing local products and then exporting them while trying to keep most of the added value of the final product in the country is due to the characteristics of these products, such as we will see later, but also to the fact that it is an activity with many risks, while there are others such as the import of finished products or the export of raw products which allow to obtain better profitability without having to face almost any risk. The accounts of the following companies studied (Burkina Faso, Togo and Ivory Coast) shed a little more light on the reason for these opinions. Starting with the 8 companies initially analyzed, 2 whose main activity is construction were excluded because they are neither importers nor exporters. Below is a summary on Table 4:

Table 4

Comparison of West African Business Results in 2014

BusinessType	Country	Sales *	BusinessValue * Added	VA // CA	Net income *	Staff figures	Balance sheet assets *	Main Products	Position in GVC
Import 1 LTD	BF	30248	2290	8%	431	825	28243	Sheets and irons	Intermediate
Import 2 LTD	BF	4563	557	12.2%	458	150	1211	Frozen fish	Almost final
Import 3 LTD	CI	4000	316	8%	299	12	592	hydrocarbons	Almost final
Export 1 LTD	BF	920	155	17%	-196	400	753	Cashew almonds	Intermediate
Export 2 INF	BF	91	11	12%	-0.1	485	100	Dried mango	Intermediate
Export 3 INF	TO	64	-6	-9.4%	-12	45	35	Dried pineapple	Intermediate

Source: Fieldwork (2016)

NB: * Millions of FCFA

Import companies 1 and 2 and export companies 1 and 2 belong to Burkina Faso; and export company 3 belongs to Togo, and import company 3 to Ivory Coast, in order to verify if the situation in Burkina Faso is the same as the situation in other west African countries. SA stands for 'Société Anonyme' which means a Limited Company' and INF an 'informal individual enterprise'. The columns of Turnover, Added Value, VA / CA (Added Value divided by Turnover) and Net Result are in millions of FCFA. Export 1, 2 and 3 belong to the food processing sector, while import 1 belongs to heavy metallurgy, import 2 to the distribution of hydrocarbons and import 3 to that of food products. One can observe that despite the number of workers in the processing companies et export, the fixed assets are low, which may be correlated with low productivity and absolute values of relatively low turnover. Importing companies often have lower value added percentages on turnover than those of the best

performing exporting companies, however, these show structural cost problems which lead them to abnormally low profits. We observe here that the size of the assets of processing and export companies is much smaller than that of companies importing finished or intermediate products, which has consequences for economies of scale, productivity and the breakdown of added value until you get the profits.

All these figures are taken from official accounts, and it is easy to assume that they do not completely reflect the reality of the companies concerned because tax evasion is very strong in Africa, as Ndikumana (2017) notes. However, if cheating takes place in all businesses, it mainly concerns the cover-up of revenues so as not to have to pay too much income tax. On the other hand, these cheats rarely concern the assets of companies, because there is almost no tax advantage to do so. As for importing companies, the highest returns on assets belong to those which import finished products, compared to that which imports products for their further processing and sale on the local market.

Other more refined observations lead us to the same conclusions: even in the cases where the most industrial exporting companies have high added value, the profitability of their assets in terms of production of added value is poor, and the productivity of the staff employed is lower. This implies a lower return on investment, problems with higher personnel (not counting the tax uncertainty because the profit is less related to amounts paid to customs, so most likely a severe adjustment). In addition, as indicated by Nasse (2019) the insane practices and discrimination in the relationship with customers lead to the reduction of profitability. In the same context Zongo and Nasse (2019) have shown that reliability and responsiveness are also some key factors that influence customers' satisfaction.

According to the International Trade Center online database (2018), Burkina Faso's export potential consists of a basket of 20 products including 14 raw materials with almost no processing (including gold or sesame) and 7 products with very relative added value. These are:

- dried mangoes,
- cashew almonds,
- peeled or roasted peanuts,
- oil cakes, shea butters and vegetable oils of cotton seed
- bronze sculptures
- raw beef or pig skins
- concrete iron and sheets

The only truly industrial product with the creation of local added value and exported is concrete iron and sheet metal, and this, for a volume of 2 or 3% of national production, and exclusively for Niger, even less supplied only Burkina in metallurgical enterprises. These are few in number and mainly supply the construction and trade sectors, which are very fragmented, which gives them a major advantage allowing them to operate as an oligopoly and capture a large part of the added value of the metal products used in construction. Buyers of oils, butters and cakes produced in Burkina do not want this country to develop more advanced processing industries for these goods because one of their main attractants is that they are "natural" products. Similarly, dried mangoes and cashew almonds are often "organic" because producers cannot afford to buy pesticides or herbicides. Peanuts are only transformed into paste (and in artisanal conditions) to serve the local market. The slaughterhouses that serve local butchers separate the skins for export, but there is no efficient facility for the export of

frozen meat. The meat is exported to the border and the railway is not even used to quickly bring the animals to Abidjan, the main market in Côte d'Ivoire. Finally, cashew almonds or dried mangoes are not an end product in the consumption and processing chain, and prices are decided by a handful (small intermediaries having been absorbed or declared bankrupt) of multinationals that make it world trade and the game of speculation on the stock markets. So the most industrial activities related to export are so poorly developed in their different value chain of hatred they generate almost no added value in the Burkina Faso.

According to Biggs and Srivastava (1996, p. 54) African firms show lower total factor productivity levels than firms in other developing countries. This is due to the fact that any cheaper costs of African labor are offset by lower labor productivity and by lower productivity of all other factors, i.e. a whole series of structural constraints which lead to higher production costs:

- poor financing, especially for exports;
- bad public industrial policies;
- a low technological level with an absence of innovations;
- poor telecommunications, energy, road, and port infrastructure (with costs 600% higher than in Asia in the latter case);
- high transaction costs, without legal guarantees or information on the local market and a high cost of access to external markets, complicate collaboration between companies.

Akouwerabou (2014, p. 214) shows that corruption is widespread (153 companies out of a sample of 282 having obtained public contracts in 2012 in Burkina Faso) in many African countries and affirms that this scourge deviates important resources of some companies for obtaining market in this way, instead of investing in the improvement of competitiveness, and this is one of the reasons of SMEs' inefficiency.

Given that Burkina Faso is an underdeveloped landlocked country surrounded by underdeveloped countries (Nasse, 2012) who all suffer from similar structural constraints, the cost of the industrial production for export are even worse, especially since the international markets are very competitive.

This is why Kerrazi (2015, p. 19) gives three main causes to explain why the creation of added value through the Global Value Chains is a failure in Africa:

- specialization in activities that are less strategic and therefore less value-creating;
- difficulties in moving upmarket in the Global Value Chains;
- and a limited capacity for innovation, as one can also see it on the following Figure 10.

On this last point, the words of Kabou (1991, p. 25) are still topical. "Africa which ... claims ... a better distribution of the benefits of scientific progress made in the world, is distinguished in it by a sovereign contempt for creativity, the dissemination of technical knowledge, by a terrifying lack of imagination and a murderous conformism". This is why the argument which claims that Africa will benefit from integrating directly into global value chains, forgets that it is precisely the effort of having had to overcome one by one all the development stages that has prepared some countries to overcome new technological challenges and globalization.

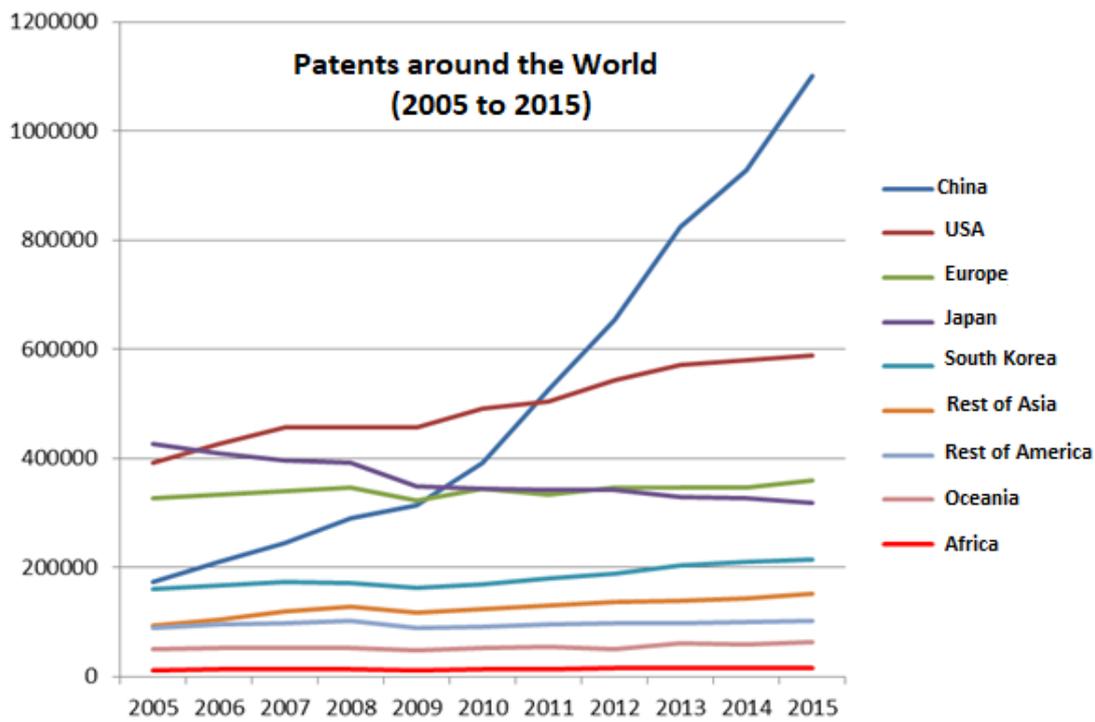


Figure 10: Innovation in Different Areas of the World and Africa
Source: World Intellectual Property Organization Statistics Database

CONCLUSION

With a human development index listed 185th out of 188 countries by Jahan (2016), Burkina Faso is struggling to get out of poverty and to be a developed country. Here the recipe proposes to increase local manufacturing production to increase the share of value-added paid in the chain of global value per hour to create jobs and wealth. The competitive advantage of Burkina Faso relies on the low price of its labor, its market opportunities (Nasse et al., 2019; Kiékiéta, and Nassè, 2020), and a limited number of manufacturing companies, its banks, monopolies, fuel distributors or mining companies. It has also been noticed that Burkina Faso hardly incorporates added value in its exported productions. While development aid should head in priority to the development of productive infrastructure, it is very largely diverted from its purpose and becomes as indicated Keza (2005) a fund redistribution tool that stimulates consumption and imports. This is where the added value appears in the most downstream of Global Value Chains, and in the implementation of trade and distribution networks to sell products that create jobs and wealth somewhere else. Africa is a rich land in economic paradoxes. The resource curse and the paradox of abundance are already mentioned by the African Development Bank (2007). Farcis (2006) already spoke of growth without development for poor countries. This article shows that it is possible in these same countries to have some added value creation without industrialization; as well as the integration of African countries in GVCs without creating some added value. According to Schumpeter (1935) the entrepreneur is the central actor of development and therefore if creating industrial added value for the development of a country is not profitable for its businessmen, the country will never develop.

Other similar lines of research could develop several other correlative paradoxes that could take place in Burkina Faso, such as for example: the demographic explosion without

demographic dividend, the formalization of companies without jobs' creation, or the very strong growth of banks without increasing the credit margin for businesses.

References

- Ajmal, A., Stacey, F., Andrew, G. & Gary, G. (2015). *Pro-poor development and power asymmetries in global value chain*. Technical Report. Durham, DU: Duke University Center on Globalization, Governance and Competitiveness.
- Akouwerabou, D. B. (2014). Corruption in government procurement: on the motivations of small and medium enterprises in Burkina Faso. *Advances in African Economic, Social and Political Development*, 1(1), 199-216.
- Ambrosus Technologies GmbH (2018). *La Swiss Coffee Alliance et Ambrosus apportent la transformation numérique aux marchés mondiaux du café*. <https://www.prnewswire.com/news-releases/la-swiss-coffee-alliance-et-ambrosus-apportent-la-transformation-numerique-aux-marches-mondiaux-du-cafe-676123653.html>
- Alshenqeeti, H. A & Inderawati, R. (2020). Study of financial technology implications for professionals in Indonesia. *Finance & Accounting Research Journal*, 2(2), 51-58.
- Azariadis, C., & Stachurski, J. (2005). *Poverty trap*, in *handbook of economic growth*,– North Holland. Amsterdam, AM: Vol 1, Part 2 coordinated by Philippe Aghion and Steven Durlauf.
- Bad, Ocde, Pnud (2017). *Perspectives économiques en Afrique 2017*. Paris, PA : Editions OCDE.
- Badlwin, R., & Venables, A. (2010). *Spiders and snakes: offshoring and agglomeration in the global economy*. Working Paper 16611. Cambridge, CA: National Bureau of Economic Research.
- Baldwin, R. (2016). *The great convergence: information technology and the new globalization*. Cambridge, CA: Harvard University Press.
- Balva, C. (2018). *Comprendre les blockchains : fonctionnement et enjeux de ces nouvelles technologies*. *Rapports des travaux parlementaires*. Paris, PA : Sénat. <http://www.senat.fr/rap/r17-584/r17-58432.html>.
- Banque Africaine de Développement (2007). *Rapport sur le développement en Afrique-2007*. <https://www.afdb.org/fr/knowledge/publications/african-development-report/african-development-report-2007> Abidjan, AB : Banque Africaine de Développement.
- Biggs, T., Manju, S., Pradeep S. (1995). *Technological capabilities and learning in African enterprises*. Technical paper n°25. Washington, WA: World Bank.
- Biggs, T. & Pradeep, S. (1996). *Structural aspects of manufacturing in sub-saharan Africa*. World Bank discussion paper n°345. Africa Technical Development Series. Washington, WA: World Bank.
- Christensen, C., M, McDonald, R., Altman, E., J., & Palmer, J., E. (2018). Disruptive innovation: an intellectual history and directions for future research. *Journal of Management Studies*, 55(7). <https://doi.org/10.1111/joms.12349>.
- Christensen, C. M. (2003). Examining possible antecedents of its impact on the supply chain and its effect on firm performance. *Information and Management*, 41(2), 227-241.
- Christensen, C. M. (1997). *The innovator's dilemma: when new technologies cause great firms to fail*. Boston, MA: Harvard Business School Press.

- Christensen, C. M. (2006). The ongoing process of building a theory of disruption. *Journal of Product Innovation Management*, 23(1), 39-55
- Commission économique pour l'Afrique (2013). *Tirer le plus grand profit des produits de base africains : l'industrialisation au service de la croissance, de l'emploi et de la transformation économique – Rapport économique sur l'Afrique*. Addis-Abeba, AA : UNECA.
- Commission économique des Nations Unies pour l'Afrique (2016). *Rapport économique sur l'Afrique 2016: vers une industrialisation verte en Afrique*. Addis-Abeba, AA : UNECA. Addis-Abeba (Éthiopie).
- Commission Européenne (2018) Proposition de directive du parlement européen et du conseil sur les pratiques commerciales déloyales dans les relations interentreprises au sein de la chaîne d'approvisionnement alimentaire. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52018PC0173>.
- Conférence des Nations Unies sur le Commerce et le Développement (2015). *Le développement économique en Afrique*, Rapport 2015. New York, NY : Nations Unies.
- Crozet, M. & Koenig, P. (2005). *État des lieux du commerce international. Le rôle des firmes multinationales dans le commerce international*. Paris, PA: Cahiers Français n° 325 La Documentation Française.
- Cusolito, A. P., Safadi R., & Taglioni, D. (2016). *Inclusive global value chains: policy options for small and medium enterprises and low-income countries. Directions in Development*. Washington, DC : World Bank.
- Delaveau, B. (2009). *Faut-il rééquilibrer le partage de la valeur ajoutée et des profits en faveur des salariés ? La Note de Veille Num*. Paris, PA: Centre d'Analyses Stratégiques du Commissariat général à la stratégie et à la prospective.
- Dunning, J. H. & Lundan, S. M. (2008). *Multinational enterprises and the global economy, second edition*. Cheltenham, CH : Edward Elgar Publishing.
- Economie Matin (2014). *Vêtements : il y a quoi derrière l'étiquette ?* Article du 24-12-2014 <http://www.economiamatin.fr/news-industrie-textile-chiffres-affaires-probleme-ethique-chine-leco>.
- Farcis, S. (2006). *Une croissance sans développement dans les pays pauvres. Sciences Humaines n° 175*. https://www.scienceshumaines.com/agir-par-soi-meme_fr_263.htm .
- Farole, T. & Winkler, D. E. (2014). *Making foreign direct investment work for sub-saharan Africa: local spillovers and competitiveness in global value chains*. Washington (DC), WA: World Bank.
- Fitter, R. & Kaplinsky, R. (2001). *Who gains from product rents as the coffee market becomes more differentiated? A value chain analysis*. IDS Bulletin Paper.
- Franck, B. & Owen, R. F. (2005). Absorption des connaissances et localisation internationale de la R&D des entreprises. Un jeu stratégique. *Revue économique*, 56(6), 1207-1226.
- Fukunishi, T. (2004). *International competitiveness of manufacturing firms in Sub-Saharan Africa*. Chiba, CH: Discussion paper n°2 Institute of Developing Economies JETRO.
- Gereffi, G. (2005). *The global economy: organization, governance, and development*. In N. J. Smelser & R. Swedberg (Eds.), *The Handbook of Economic Sociology* (pp. 160-182): *Second edition*. New York, NY: Princeton University Press.
- Gereffi, G. & Fernandez-Stark, K. (2011). *Global value chain analysis: a primer*. Durham, DU: Center on Globalization, Governance & Competitiveness (CGGC) Duke University.

- Guerrero, D. (1995). *Competitividad: teoría y política*. Barcelone, BA: Ariel.
- Institut national de la statistique et de la démographie (2017). *Annuaire statistique 2016*. Ouagadougou, OU: INSD.
- INSEE (2017). <https://www.insee.fr/fr/metadonnees/definition/c1950>.
- International Trade Center (2018). *Burkina Faso*. New York, NY : Rapport sur le développement humain 2016 Programme des Nations Unies pour le Développement. http://www.intracen.org/pays/burkina_faso/.
- Kabou, A. (1991). *Et si l'Afrique refusait le développement ?* Paris, PA : L'Harmattan.
- Kaplinsky, R., & Morris, M. (2002). *A handbook for value chain research*. IDRC.
- Keza, J. P. (2005). *Valeurs culturelles et échec de l'aide au développement*. Paris, PA : L'Harmattan.
- Kherrazi, S. (2015). L'essor des chaînes de valeur mondiales : l'impératif d'une stratégie duale pour l'Afrique. *Revue de Management et de Stratégie*, 3(2), 11-24.
- Kiékiéta, M., & Nassè, T. B. (2020). Determinants of championship attractiveness of popular events in Burkina Faso: the critical role of biotope, biocenosis, and media on the national football championship. *International Journal of Management & Entrepreneurship Research*, 2(1), 11-21.
- Krugman, P. (1995). Technology, trade and factor prices. *Journal of international Economics*, 50(1), 51-71.
- Maison de l'Entreprise (2016). *Annuaire des 500 premières entreprises du Burkina Faso*. Ouagadougou, OU: Maison de l'Entreprise.
- Maliactu (2016). *Le classement des salaires minimum en Afrique..., la position surprenante du Mali!* <https://maliactu.net/le-classement-des-salaires-minimum-en-afrique-la-position-surprenante-du-mali/>
- Nasse, T. B. (2019). Internal equity and customer relationship management in developing countries: A quantitative and a comparative study of three private companies in Burkina Faso. *African Journal of Business Management*, 13(1), 37-47.
- Nasse, T.B., Carbonell, N., Tchokomakoua, G. (2019). Consumption patterns and opportunities in the beverage market in Africa: the case of juices and soft drinks in Burkina Faso in a marketing perspective. *International Journal of Economics, Business and Management Research*, 3(12), 108-118.
- Nasse, T. B., & Sawadogo (2019). Internal equity and customer relationship management in subsistence markets: a comparative and a qualitative study of three private companies in Burkina Faso. *International Journal of Management & Entrepreneurship Research*, 1(1), 42-58. <https://www.fepbl.com/index.php/ijmer/article/view/5/6>
- Nasse, T. B. (2015). *Internal equity as a factor of companies' economic profitability: a comparative study of three private companies in Burkina Faso through a qualitative approach*. Saarbrücken, SA : Lambert Academic Publishing.
- Nasse, T. B. (2012). *Succeeding in Church missionarial work in West Africa: The necessity of understanding the West African environment*. Saarbrücken, SA: Lambert Academic Publishing.
- Ndikumana, L. (2017). *L'évasion fiscale, l'autre pillage de l'Afrique*. Bruxelles, BR : Le Soir. <http://plus.lesoir.be/118787/article/2017-10-12/levasion-fiscale-lautre-pillage-de-lafrique>

- Observatoire de la Complexité (2015). *Base de données online du Massachusetts Institute of Technology*. Cambridge, CA : Observatoire de la Complexité <https://atlas.media.mit.edu/fr/profile/country/bfa/>
- PNDES (2017). *Plan national de développement économique et social 2016-2020*. Ouagadougou, OU: Primature du Burkina Faso. www.pndes.com
- PNUD, BAD, OCDE (2014). *Les chaînes de valeur mondiales et l'industrialisation de l'Afrique*. <http://www.un.org/fr/africa/osaa/pdf/pubs/2014afrecooutlook-afdbf.pdf>
- Porter, M. (1991). *La Ventaja Competitiva de las Naciones*. Buenos Aires, BA: Javier Vergara Editor SA.
- Porter, M. (1996). What is strategy? *Harvard Business Review* 74(6), 61-78.
- Regnier, P. (2007). Histoire de l'industrialisation et succès asiatiques de développement : une rétrospective de la littérature scientifique francophone. *Mondes en développement*, 3(139), 73-89.
- Ricau, P. (2013). Connaître et comprendre le marché international de l'anacarde http://www.interreseaux.org/IMG/pdf/Guide_RONGEAD__Le_Marche_International_de_l_Anacarde_v-light.pdf.
- Schumpeter, J. (1935). *Théorie de l'évolution économique. Recherche sur le profit, le crédit, l'intérêt et le cycle de la conjoncture (Traduction de l'original écrit en 1911)*. Paris, PA : Librairie Dalloz.
- Smith, A. (1776). *Recherches sur la nature et les causes de la richesse des nations*. Québec, QU: Université du Québec à Chicoutimi.
- Vaughan-Whitehead, D., & Pinedo, C. L. (2017). *Purchasing practices and working conditions in global supply chains: Global Survey results. Inwork Policy Brief No. 10. International Labour Organisation*. Geneva, GE: International Labour Organisation.
- Willoughby, R., & Gore, T. (2018). *Ripe for change - Ending human suffering in supermarket supply chains*. Oxford, OX: Oxfam international. <https://www.oecd.org/fr/sti/ind/economies-interconnectees-GVC-synthese.pdf>
- Yeretzian, A. (2016). *La blockchain décryptée- Les clés d'une révolution*. Paris, PA: Blockchain France - Observatoire Netexplo.
- Zongo, K., N., & Nasse, T. B. (2019). Online ticketing and customer satisfaction analysis: an exploratory research concerning customers in the context of Burkina Faso. *International Journal of Management & Entrepreneurship Research*, 1(4), 151-165.

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