
An Overview of Global Non-Oil Commodities Export Competitiveness: A Comparative Analysis

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ABSTRACT: *This study provides a comparative evidence of global non-oil commodities export competitiveness. Analytically, this study employs descriptive statistics to highlights and overview the global non-oil commodities export competitiveness. The study used the reports of the world competitiveness index, world merchandise exports and imports by commodity, world economic forum ranking and the African industrial competitiveness for the comparative analysis. The findings show that United States, Singapore, China, Germany, Japan, Switzerland, Netherlands are the most competitive economies in terms of non-oil commodities export, while, Mauritius, South Africa, Morocco, Seychelles, Tunisia and Algeria are the most competitive economies given the Africa ranking. The study presented significant recommendations: product quality, production capacity, export capacity, export market shares/size, market access and technological upgrading and innovation dynamic are considered as the main pillars that determine countries non-oil commodities competitiveness in the global market towards economic growth.*

KEYWORDS: global, non-oil commodities, export competitiveness, comparative analysis

INTRODUCTION

Globalization has created vast economic opportunities for nations and companies around the world to access the global market. Consequently, nations and companies specifically within the non-oil commodities export sectors are doing business around a borderless globe. Nations are focusing on the global market to strengthen their economic growth and investing their resources in different infrastructural aspects to facilitate rapid economic growth. The global non-oil commodities export market has witnessed several dynamic changes such as reductions in trade costs, increased global trade, growth of industrialization in developing countries, and a complete change in the nature of non-oil commodities traded in the global market. The drivers of global market changes include shifts in production and consumption patterns, technological innovations, new ways of conducting business, and policy changes.

Many governments have lately opened their economies to international trade, enabling them to reap several benefits. Openness to trade is believed to have supported the growth of many countries and has greatly contributed to the success of most Asian countries, especially China and India, while, Africa has been gradually industrializing over the last decade, yet there is lots of work to be done. The continent's slow industrialization is causing large trade deficits in manufactured products, which cannot be compensated by the surplus obtained from the export of raw materials and natural resources. Africa's negative trade balance in manufactured products is so large that it turns the continent's entire trade balance negative, hampering Africa's competitiveness in the global non-oil commodities export market.

Although the global non-oil commodities export market offers numerous benefits, many developing countries still face serious limitations to fully access it; they are constrained by factors such as quality inferiority, production capacity, market share, distance, quantitative restrictions, poor technical skills, technological innovations, bad governance, and border controls. This study provides an overview and comparative analysis of the global non-oil commodities export competitiveness, including the recent transformations in the sector.

Concept of Competitiveness in a Global Market

Competitiveness is a measure of a country's advantage or disadvantage in selling its products in global markets. Competitiveness may be defined as the advantage in price, speed of delivery, design, etc., which enables a company or country to secure sales at the expense of its competitors. Thus, the true definition of competitiveness is the ability of a region to export more in value added terms than it imports when including for "terms of trade" to reflect all government "discounts" and import barriers.

The most competitiveness index used in overviewing, analysing, comparing, ranking a country's competitive advantage or disadvantage in selling its products in global markets include:

- The World Competitiveness Index (WCI),
- The World Merchandise Exports and Imports by Commodity harmonized system (HS) of TrendEconomy
- The Global Competitiveness Report (GCR) of The World Economic Forum
- UNIDO Competitive Industrial Performance (CIP) Index

Note: Comparative analysis depends on facts and figures

World Competitiveness Index (WCI): Overview and Comparative Analysis of Global Economic Performance

Table 1 provides an overview and comparative analysis of the global economic performance from 2018-2022.

The yearbook of the WCI provides extensive coverage of 63 economies. The factors used for measuring competitiveness for the economic performance is domestic economy, international trade, international investment, employment and prices.

Table 1: World Competitiveness Ranking 2022: Economic Performance

Country	2018	2019	2020	2021	2022
Luxembourg	4	4	8	10	1
Singapore	7	5	3	1	2
USA	1	1	2	5	3
China	2	2	7	4	4
Germany	12	9	5	3	5
UAE	3	7	4	9	6
Ireland	11	6	12	22	7
Hungary	39	46	19	8	8
Qatar	5	3	6	11	9
Canada	13	12	10	14	10
South Africa	59	59	61	61	59
Botswana	–	–	–	62	60

World Competitiveness Index (2022)

World Merchandise Exports and Imports by Commodity: Overview and Comparative Analysis of Global Non-Oil Commodities Export Competitiveness

Table 2: All Commodities Imports and Exports 2021

Reporter	TOTAL. ALL COMMODITIES			
	Exports 2021		Imports 2021	
	Value (US\$)	World Share (\$), %	Value (US\$)	World Share (\$), %
China	3,362,301,613,439.00	15.98	2,684,362,678,517.00	12.58
USA	1,753,136,708,106.00	8.33	2,932,976,075,226.00	13.75
Germany	1,630,917,502,926.25	7.75	1,422,818,962,284.77	6.67
Japan	757,066,261,248.97	3.59	772,276,197,103.32	3.62
Netherlands	696,129,763,695.13	3.30	622,869,776,692.47	2.92
Hong Kong	670,926,079,457.05	3.18	713,173,047,238.35	3.34
Korea	644,411,147,014.00	3.06	615,013,706,965.00	2.88
Italy	601,662,526,918.56	2.86	557,227,660,477.22	2.61
France	585,148,036,598.84	2.78	714,842,314,539.93	3.35
Canada	501,200,640,360.65	2.38	489,489,960,747.54	2.29
Mexico	494,595,503,435.00	2.35	506,565,459,467.00	2.37
Russia	492,313,790,696.65	2.34	293,497,128,020.04	1.37
United Kingdom	470,547,786,029.46	2.23	688,236,538,506.73	3.22
Singapore	457,473,986,069.25	2.17	406,622,366,684.23	1.90
Other Asia, nes	447,656,546,120.09	2.12	382,555,002,402.23	1.79
United Arab Emirates	425,159,796,503.56	2.02	347,528,997,702.20	1.62

Table 2: All Commodities Imports and Exports 2021 (contd.)

Reporter	TOTAL. ALL COMMODITIES			
	Exports 2021		Imports 2021	
	Value (US\$)	World Share (\$), %	Value (US\$)	World Share (\$), %
India	394,813,673,347.29	1.87	570,402,004,491.75	2.67
Spain	391,558,519,476.67	1.86	426,059,816,727.04	1.99
Switzerland	379,770,927,042.89	1.80	323,356,086,951.79	1.51
Australia	342,036,103,269.84	1.62	261,586,379,464.39	1.22
Belgium	336,468,392,415.94	1.59	344,684,643,196.68	1.61
Poland	317,832,124,942.00	1.51	335,451,322,206.00	1.57
Malaysia	299,230,434,394.23	1.42	238,249,762,706.57	1.11
Saudi Arabia	286,467,258,610.59	1.36	152,695,088,723.68	0.71
Brazil	280,814,577,460.00	1.33	234,690,442,199.00	1.10
Thailand	266,674,796,256.73	1.26	268,205,273,798.65	1.25
Indonesia	231,522,458,128.80	1.10	196,189,955,586.00	0.92
Czech Republic	227,160,991,427.00	1.07	211,839,349,422.00	0.99
Turkey	225,219,237,137.00	1.07	271,422,952,972.00	1.27
Austria	201,647,281,767.75	0.95	218,972,302,461.88	1.02
Ireland	195,997,875,900.84	0.93	122,755,296,375.44	0.57
Sweden	189,845,173,844.12	0.90	187,116,441,913.10	0.87

Table 2: All Commodities Imports and Exports 2021 (contd.)

Reporter	TOTAL. ALL COMMODITIES			
	Exports 2021		Imports 2021	
	Value (US\$)	World Share (\$, %)	Value (US\$)	World Share (\$, %)
Norway	161,686,747,944.17	0.76	99,193,357,823.76	0.46
Hungary	141,157,091,681.00	0.67	139,132,012,128.00	0.65
Denmark	125,014,614,347.86	0.59	121,784,025,735.77	0.57
South Africa	122,508,800,114.10	0.58	93,498,185,672.51	0.43
Slovak Republic	104,733,320,881.92	0.49	105,141,762,064.53	0.49
Chile	94,676,809,206.28	0.45	92,190,957,181.48	0.43
Romania	88,389,728,970.91	0.42	116,401,944,588.41	0.54
Qatar	87,203,291,188.87	0.41	27,985,403,213.75	0.13
Finland	81,500,265,209.30	0.38	86,263,574,423.98	0.40
Argentina	77,934,314,986.58	0.37	63,183,637,614.17	0.29
Portugal	75,242,766,894.06	0.35	98,337,110,276.91	0.46
Philippines	74,619,528,755.00	0.35	124,390,447,217.00	0.58
New Zealand	73,365,957,577.12	0.34	49,882,002,209.50	0.23
Ukraine	65,870,275,510.39	0.31	69,962,816,304.35	0.32
Israel	60,159,734,000.00	0.28	92,158,602,000.00	0.43

Table 2: All Commodities Imports and Exports 2021 (contd.)

Reporter	TOTAL. ALL COMMODITIES			
	Exports 2021		Imports 2021	
	Value (US\$)	World Share (\$, %)	Value (US\$)	World Share (\$, %)
Peru	56,260,115,202.75	0.26	51,177,707,721.21	0.24
Nigeria	47,231,712,930.36	0.22	52,068,286,983.14	0.24
Greece	47,205,645,377.69	0.22	75,983,832,174.28	0.35
Slovenia	46,692,128,069.11	0.22	49,067,424,644.12	0.23
Oman	44,590,926,520.59	0.21	30,994,759,150.45	0.14
Colombia	41,389,989,047.58	0.19	61,098,589,560.05	0.28
Bulgaria	41,370,856,687.29	0.19	46,395,777,342.42	0.21
Lithuania	40,817,630,390.00	0.19	44,570,902,570.00	0.20
Egypt	40,701,703,944.37	0.19	73,781,228,867.20	0.34
Belarus	39,889,022,800.00	0.18	41,810,690,400.00	0.19
Morocco	36,585,224,951.20	0.17	58,677,639,334.21	0.27
Angola	33,743,790,442.26	0.16	11,359,672,043.01	0.05
Pakistan	28,795,179,085.96	0.13	72,891,644,100.61	0.34
Ecuador	26,699,199,844.37	0.12	25,687,187,046.21	0.12
Serbia	25,566,160,915.00	0.12	33,793,017,446.00	0.15
Estonia	22,280,098,648.61	0.10	24,160,688,911.17	0.11

Source: TrendEconomy, 2022

In 2021, the world merchandise exports exceeded \$21 trillion (according to external trade statistics of 132 countries). It was \$17.1 trillion in the previous year (according to merchandise trade statistics of 151 countries). There are no trade data (2021) for such exporters as Vietnam (1.64% of the world exports in 2020), Kazakhstan (0.274%), Kuwait (0.234%), Côte d'Ivoire (0.072%), Bahrain (0.067%), Namibia (0.032%), Uganda (0.024%), Albania (0.014%), Niger (0.007%), Jamaica (0.007%), State of Palestine (0.006%), Seychelles (0.005%), Lesotho (0.004%), Malawi (0.004%)

Nigeria World share of export in total commodities exported is 0.22%, not up to 1% and ranked 49th in World Merchandise Exports and Imports by Commodity.

The world's largest (Top) exporters of commodities in 2021:

- China - **15.9%** of the world exports (\$3.36 trillion)
- USA - **8.33%** (\$1.75 trillion)
- Germany - **7.75%** (\$1.63 trillion)
- Japan - **3.59%** (\$757 billion)
- Netherlands - **3.3%** (\$696 billion)

1. The World Economic Forum set of institutions, policies and factors that determine the level of Non-Oil Commodities Export Competitiveness of a country

The World Economic Forum (WEF) defines **competitiveness** as “the set of institutions, policies and factors that determine the level of productivity of a country. The level of productivity in turn determines the level of prosperity that can be achieved by an economy. The concept of competitiveness therefore involves static and dynamic components.

The Global Competitiveness Report (GCR) was a yearly report published by the World Economic Forum. Between 2004 and 2022, the Global Competitiveness Report ranked countries based on the Global Competitiveness Index. The Global Competitiveness Index (GCI) integrates the macroeconomic and the micro/business aspects of competitiveness into a single index. The report "assesses the ability of countries to provide high levels of prosperity to their citizens". This in turn depends on how productively a country uses available resources. Therefore, the Global Competitiveness Index 4.0 measures national competitiveness defined as the set of institutions, policies and factors that determine the level of productivity and the sustainable current and medium-term levels of economic prosperity.

The Competitiveness Index (GCI) tries in an open and non-definitive way to capture a weighted average of these various components, each of which measures a specific aspect of competitiveness. The World Economic Forum Ranking indicators are organized or grouped into 12 ‘pillars’ Below is a brief description of each one.



Figure 1: Global Competitiveness Index Frameworks: The 12 Pillars. Source: WEF, 2012

In the factor-driven stage countries compete based on their factor endowments, primarily unskilled labor and natural resources. Companies compete on the basis of prices and sell basic products or commodities, with their low productivity reflected in low wages. To maintain competitiveness at this stage of development, competitiveness hinges mainly on well-functioning public and private institutions (pillar 1), appropriate infrastructure (pillar 2), a stable macroeconomic framework (pillar 3), and good health and primary education (pillar 4).

As wages rise with advancing development, countries move into the efficiency-driven stage of development, when they must begin to develop more efficient production processes and increase product quality. At this point, competitiveness becomes increasingly driven by higher education and training (pillar 5), efficient goods markets (pillar 6), efficient labor markets (pillar 7), developed financial markets (pillar 8), the ability to harness the benefits of existing technologies (pillar 9), and its market size, both domestic and international (pillar 10).

Finally, as countries move into the innovation-driven stage, they are only able to sustain higher wages and a higher standard of living if their businesses are able to compete by providing new or unique products. At this stage, companies must compete by producing new and different goods using the most sophisticated production processes (pillar 11) and through innovation (pillar 12).

Overview and Comparative Analysis of Global Competitiveness of Non-Oil Commodities Export in World Economic Forum (WEF) Rankings

Overview of Regional Comparative Analysis

The following sections provide an overview of the performance of each of the following regions (organized in alphabetical order): East Asia and the Pacific; Eurasia; Europe; Latin America and the Caribbean; Middle East and North Africa; North America, South Asia; and Sub-Saharan Africa.

Table 3: Regional Performance, by Pillar (Average Score (0-100))

Region	Enabling environment				Human capital		Markets				ecosystem	
	Institutions	Infrastructure	ICT adoption	Macroeconomic stability	Health	Skills	Product market	Labour market	Financial system	Market size	Business dynamism	Innovation capability
East Asia and the Pacific	61.6	74.3	67.3	88.9	84.3	66.9	62.2	65.9	72.8	67.2	65.7	52.9
Eurasia	53.0	66.3	57.1	71.7	73.4	65.6	57.1	61.6	50.8	49.8	60.1	34.8
Europe and North America	64.5	78.7	68.0	91.8	90.7	74.2	62.0	66.2	69.5	59.6	68.3	58.1
Latin America and the Caribbean	47.8	61.1	46.4	74.0	82.7	57.5	53.9	55.3	59.5	52.5	52.4	33.8
Middle East and North Africa	54.3	69.0	54.1	79.6	80.0	61.4	54.7	52.3	61.8	60.3	56.7	39.9
South Asia	50.1	59.6	33.0	74.1	68.4	49.7	47.3	51.7	59.0	66.9	56.5	36.4
Sub-Saharan Africa	47.5	46.3	29.6	66.9	48.0	43.4	50.4	53.8	50.4	38.8	51.1	28.4

Source: World Economic Forum Analysis

Note: Darker shades indicate better performance

Global Competitiveness Index Ranking

The GCI offers insights into the economic prospects of 140 and 141 economies in 2018 and 2019 respectively.

Table 4: Global Competitiveness Index 2018 Ranking of the Top 12 Countries in WEF

Economy	Rank (out of 140 countries)	Infrastructure		Product market		Market size		Innovation capability	
		Rank	Score	Rank	Score	Rank	Score	Rank	Score
United States	1	9	89.5	3	73.8	2	99.2	2	86.5
Singapore	2	1	95.7	1	81.2	27	71.1	14	75.0
Germany	3	7	90.2	7	72.0	5	85.8	1	87.5
Switzerland	4	3	93.3	16	66.8	30	65.9	3	82.1
Japan	5	5	91.5	5	72.9	4	86.7	6	79.3
Netherlands	6	4	92.5	6	72.3	21	73.9	9	77.5
Hong Kong	7	2	94.0	2	79.0	26	71.1	26	61.9
United Kingdom	8	11	89.0	12	68.7	7	81.7	7	79.2
Sweden	9	17	84.4	10	68.8	40	65.1	5	79.8
Denmark	10	14	86.3	15	66.9	55	59.6	12	75.4
Finland	11	29	82.3	14	66.9	61	57.4	10	76.3
Canada	12	26	80.6	20	64.9	16	76.7	13	75.0

Source: World Economic Forum: The Global Competitiveness Report, 2018

Analysis of The World Top 15 Economies in Terms of Commodities Export**Table 5: Global Competitiveness Index, 2019 Rankings of Top 15 Economies in the World**

Economy	Rank (out of 141 countries)	Overall Global Competitive Index (CI)	Infrastructure		Product market		Market Size		Innovation Capability	
			Rank	Score (C1)	Rank	Score (C1)	Rank	Score (C1)	Rank	Score (C1)
Singapore	1	84.8	1	95.4	2	81.2	27	71.5	13	75.2
United States	2	83.7	13	87.9	8	68.6	2	99.5	2	84.1
Hong Kong SAR	3	83.1	3	94.0	1	81.6	28	74.1	26	63.4
Netherlands	4	82.4	2	94.3	7	69.9	20	74.3	10	76.3
Switzerland	5	82.3	4	93.2	25	63.6	39	66.2	3	81.2
Japan	6	82.3	5	93.2	6	70.4	4	86.9	7	78.3
Germany	7	81.8	8	90.2	9	68.2	5	86.0	1	86.8
Sweden	8	81.2	19	84.0	16	66.3	40	65.4	5	79.1
United Kingdom	9	81.2	11	88.8	21	64.6	8	81.8	8	78.2
Denmark	10	81.2	15	87.1	12	66.9	55	59.9	11	76.2
Finland	11	80.2	22	83.4	15	66.3	60	57.8	12	75.8
Taiwan, China	12	80.2	16	86.7	14	66.3	19	74.7	4	80.2
Korea Rep	13	79.6	6	92.1	59	56.1	14	78.9	6	79.1
Canada	14	79.6	26	80.8	24	63.8	16	76.9	16	74.0
France	15	78.8	9	89.7	28	62.2	9	81.6	9	77.2

Source: World Economic Forum, 2019

Comparison of GCI, 2018 and 2019: Among the G20, the United States (2nd, down 1 place), Japan (6th), Germany (7th, down 4) and the United Kingdom (9th, down 1) feature in the top 10, but they all have experienced erosion in their performance. Led by Singapore, the East Asia and the Pacific region is the most competitive in the world, followed by Europe and North America. Singapore is the country closest to the frontier of competitiveness. So has Canada (14th, down 2). Korea (13th, up 2), France (15th, up 2).

Among the BRICS, China is by far the best performer, ahead of the Russian Federation, 32 places ahead of South Africa (60th) and some 40 places ahead of both India (68th) and Brazil (71st). BRICS” is an acronym for five of the largest emerging countries: Brazil, Russia, India, China, and South Africa (WEF, 2019).

Global Competitiveness of Emerging Market Economies Ranking

An emerging market economy is the economy of a developing nation that is becoming more engaged with global markets as it grows. CIVETS countries are Colombia, Indonesia, Vietnam, Egypt, Turkey and South Africa. These countries are predicted by some to be among the next emerging markets to

quickly rise in economic prominence. Figure 3 shows the 2019 global competitiveness index (GCI) ranking of CIVETS countries.

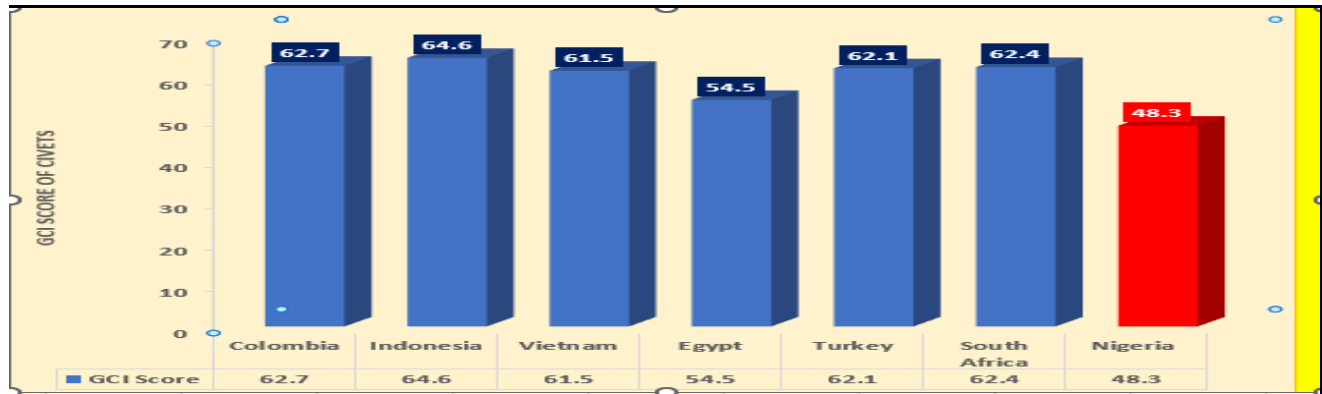


Figure 3: 2019 GCI Ranking of Emerging Economies: The CIVETS

Overview and Comparative analysis of African Competitiveness of Non-Oil Commodities Export in WEF Rankings

The Top 16 Africa Economies in Terms of Commodities Export, 2018

Table 6: Global Competitiveness Index 2018 Ranking of 16 Top Africa Countries in WEF

Economy	Rank (out of 140 countries)	Infrastructure		Product market		Market size		Innovation capability	
		Rank	Score	Rank	Score	Rank	Score	Rank	Score
Mauritius	49	67	68.0	19	65.6	117	36.9	62	38.3
South Africa	67	64	68.6	74	55.2	35	68.4	46	44.3
Seychelles	74	70	67.0	48	60.1	139	16.4	49	43.5
Morocco	75	53	71.5	75	55.2	53	60.0	78	34.0
Tunisia	87	84	62.5	103	51.7	70	52.7	84	32.7
Botswana	90	108	53.9	95	53.1	111	38.6	101	30.6
Algeria	92	88	61.2	128	45.4	38	66.4	106	29.9
Kenya	93	105	54.8	79	54.8	71	52.2	69	36.5
Egypt	94	56	70.5	121	48.2	24	72.8	130	46.4
Namibia	100	91	59.7	80	54.4	121	36.2	39	63.7
Ghana	106	116	50.3	61	56.8	73	51.8	83	32.7
Rwanda	108	115	50.8	65	56.6	128	33.8	49	62.1
Cape Verde	111	106	54.7	96	52.8	138	17.1	84	57.6
Senegal	113	111	51.8	81	54.4	101	41.1	92	55.6
Côte d'Ivoire	114	113	51.2	90	53.5	83	47.8	105	52.1
Nigeria	115	124	42.3	99	52.4	30	70.8	73	58.5

Source: World Economic Forum: The Global Competitiveness Report, 2018

The Top 16 Africa Economies in Terms of Commodities Export, 2019**Table 7: Global Competitiveness Index, 2019 Rankings of 16 Top Economies in Africa**

Economy	Rank (out of 141 countries)	Overall Global Competitive Index (CI)	Infrastructure		Product market		Market Size		Innovation Capability	
			Rank	Score (C1)	Rank	Score (C1)	Rank	Score (C1)	Rank	Score (C1)
Mauritius	52	64.3	64	68.7	22	64.5	119	37.2	70	38.1
South Africa	60	62.4	69	68.1	69	54.8	35	68.6	46	45.2
Morocco	75	60.0	53	72.6	60	56.0	52	60.5	81	35.1
Seychelles	76	59.6	87	62.3	38	60.0	141	17.1	45	46.1
Tunisia	87	56.4	85	62.7	92	52.4	71	53.5	92	32.6
Algeria	89	56.3	82	63.8	125	45.8	38	66.5	86	34.4
Botswana	91	55.5	108	53.7	95	52.2	112	39.2	99	31.4
Egypt	93	54.5	52	73.1	100	50.7	23	73.6	61	39.6
Namibia	94	54.5	94	58.5	83	53.6	112	36.7	80	35.6
Kenya	95	54.1	110	53.6	88	52.9	72	52.7	78	36.3
Rwanda	100	52.8	108	53.7	97	47.9	112	39.2	99	31.4
Ghana	111	51.2	118	46.6	85	53.2	65	64.2	89	32.9
Cape Verde	112	50.8	109	53.7	104	50.1	140	17.5	132	24.8
Senegal	114	49.7	113	51.3	94	52.3	97	43.0	96	31.9
Uganda	115	48.9	115	47.9	109	49.1	86	47.4	111	29.5
Nigeria	116	48.3	130	39.7	97	51.6	30	71.1	94	32.2

Source: World Economic Forum, 2019

Led by Mauritius (52nd), South Africa, the second most competitive in the region, improves to the 60th position, while Namibia (94th), Rwanda (100th), Uganda (115th) and Guinea (122nd) all improve significantly. Among the other large economies in the region, Kenya (95th) and Nigeria (116th) also improve their performances, but lose some positions, overcome by faster climbers.

African Industrial Competitiveness Report: An Overview of The Region Manufacturing Industry

The African industrial competitiveness report is based primarily on the UNIDO Competitive Industrial Performance (CIP) Index developed by the UNIDO Statistics Division. African manufacturing performance is reviewed in terms of production, exports and level of technological upgrading and deepening using the most recent data from UNIDO databases. It further examines Africa's export market shares and its revealed comparative advantage by analysing, assessing and comparing the industrial competitiveness of five African regions: Eastern Africa, Middle Africa, Northern Africa, Southern Africa and Western Africa. The report also highlights the gaps in data availability monitoring industrial development and informing industrial policy. It should, however, be noted that these regional aggregates are nothing more than the sum of their members, within which the larger economies tend to contribute more to the aggregated values than smaller economies.

Regional Structure of The Main Economic Aggregate in Africa

And therefore, the regional aggregates are likely to more accurately describe the economic situation of the region's biggest contributors. It is therefore useful to gain further insights into the relative contribution of members to each of the regional aggregates, which can be obtained by looking at the regional structure in terms of GDP, **Manufacturing value added (MVA)**, **population**, **exports and imports**.

Table 8: Regional Structure of The Main Economic Aggregate in Africa

Country	GDP	MVA	Population	Export	Import
	structure	structure	structure	structure	structure
	2019	2019	2019	2019	2019
Benin		1.96	3.01	2.06	
Burkina Faso		1.02	5.19	3.00	
Cabo Verde		0.17	0.14	0.05	
Côte d'Ivoire		8.56	6.57	11.09	
Gambia		0.10	0.60	0.10	
Ghana		10.43	7.77	13.55	
Guinea		1.55	3.26	2.91	
Guinea-Bissau		0.18	0.49	0.27	
Liberia		0.23	1.26	0.46	
Mali		2.66	5.02	2.93	
Mauritania		0.59	1.16	2.14	
Niger		0.69	5.96	0.99	
Nigeria		66.24	51.34	55.43	
Senegal		4.92	4.16	3.63	
Sierra Leone		0.11	2.00	0.42	
Togo		0.59	2.06	0.96	
Western Africa		100.00	100.00	100.00	

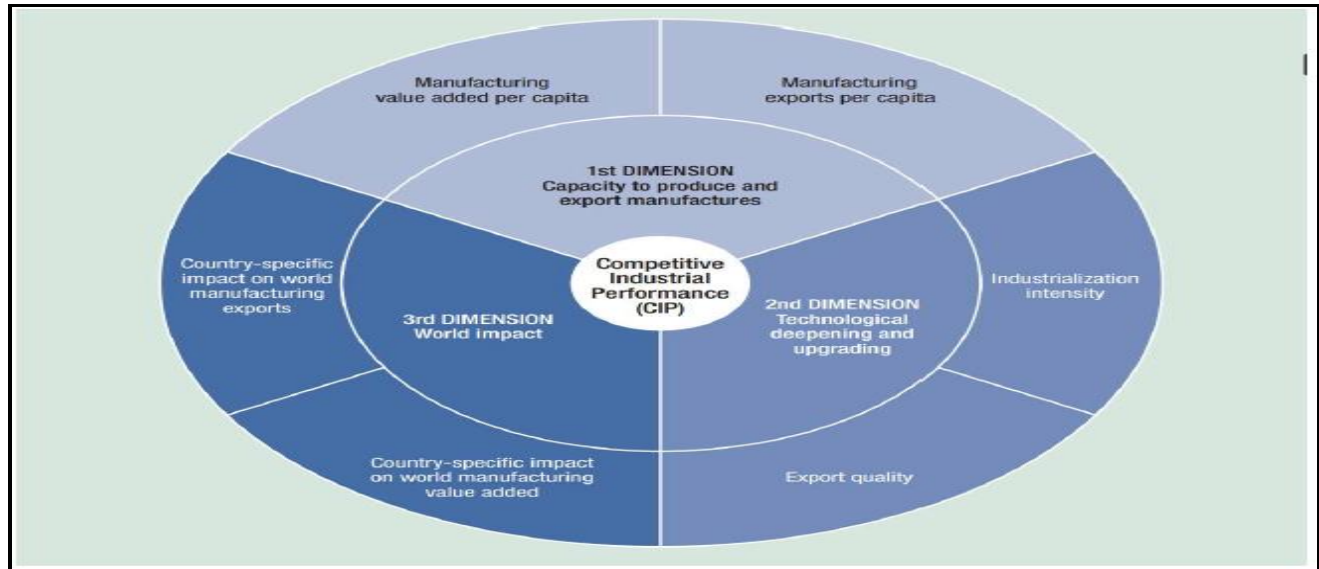
Source: Own elaboration on the basis of UNIDO, MVA database (2020) and UNCTADstat (2020).

Source: UNIDO, 2020

An Overview of African Industrial Competitiveness Report**The Three Competitive Industrial Performance (CIP) Dimensions**

The CIP index uses six (6) indicators that cover the three main (3) dimensions competitive industrial performance index developed by the UNIDO statistics division (see Figure 4) These dimensions are:

- i) The capacity to produce and export manufactured goods
- ii) Technological deepening and upgrading
- iii) The world impacts.



Source: UNIDO (2017): Figure 4: Three Dimensions of the CIP index

Six Indicators of The CIP Index That Cover Three Main Dimensions

The higher the scores in any of the three dimensions, the higher the country's industrial competitiveness and its CIP index. Beyond the ranking, it would be interesting to examine these results in more detail from the perspective of **the three CIP dimensions**.

Capacity To Produce and Export

The CIP Index's first dimension provides a comparable measure of countries' manufacturing production and exports. Manufacturing value added and manufactured exports give indications about the capacity of production in each country. To make these values comparable between countries of different sizes, the CIP uses

- i. Manufacturing value added per capita MVA_{pc}
- ii. per capita manufactured exports, and MX_{pc}

Technological Deepening and Upgrading

The CIP index captures a country's technological deepening and upgrading through two composite indices.

- I. First, the degree of industrialization intensity (INDint) estimates the complexity of production processes. INDint consists of two indicators: the share of medium- and high-tech MVA in total MVA (MHVAsh) and the share of MVA in total GDP (MVAsh); and secondly, export quality (MQual), which measures the quality of the integration process of the country's manufacturing sector in global markets. The higher the technological complexity of the country's exported goods, the higher the quality of their integration in global markets

World Impact

The CIP index groups these effects in the third CIP dimension, world impact, which is the country's impact on the global market of manufactured goods. The underlying idea of this dimension is that a country's industrial competitiveness may benefit from a higher world impact

The CIP index captures world impact through two indicators:

- i. Specific impact on World manufacturing exports: The country' share in world MVA (ImWMVA)
- ii. Specific impact on World manufacturing value added: world trade of manufactured goods (ImWMT)

The higher the values of these shares are, the higher the country's world impact on global production and the trade of manufactured goods.

Global and CIP Three Dimension Competitiveness Ranking of African Economies

In Table 9, each African economy is ranked according to its CIP global ranking. It also provides information about each African economy's rank in each of these three dimensions.

Economies of agglomeration, scope and scale are also a factor of competitiveness. The CIP index groups these effects in the third CIP dimension, world impact, which is the country's impact on the African economies are located far behind the top 50. No African economy is actually represented in the first third of the ranking. The best ranked African economy, South Africa, ranks 52nd, and of the 33 African economies included in the CIP index, only 10 reach the top 100. The other 23 fill the last positions in the ranking.

For example, we find that South Africa performs relatively better in the third dimension (world impact) and relatively worse in the first dimension (capacity to produce and export), while its performance in the second dimension (technological deepening and upgrading) lies somewhere in between. South Africa ranks 39 in the third dimension, but trails in the ranking of the first and second dimensions at 70 and 58, respectively.

Table 9: CIP Dimension Ranking of African Economies

Region	Economy	CIP global rank	Dimension 1 (rank)	Dimension 2 (rank)	Dimension 3 (rank)
Southern Africa	South Africa	52	70	58	39
Northern Africa	Morocco	61	84	32	53
Northern Africa	Egypt	64	105	56	46
Northern Africa	Tunisia	67	72	38	70
Southern Africa	Eswatini	83	57	39	113
Eastern Africa	Mauritius	87	60	89	110
Southern Africa	Botswana	89	65	118	100
Southern Africa	Namibia	97	76	123	109
Northern Africa	Algeria	98	115	147	69
Western Africa	Nigeria	99	134	86	63
Middle Africa	Congo	101	98	90	102
Western Africa	Côte d'Ivoire	105	119	109	88
Western Africa	Senegal	106	118	71	97
Middle Africa	Angola	107	120	132	82
Middle Africa	Gabon	110	83	146	117
Western Africa	Ghana	114	127	140	92
Eastern Africa	Kenya	115	132	115	89
Middle Africa	Cameroon	121	130	126	101
Eastern Africa	United Republic of Tanzania	123	137	111	94
Eastern Africa	Zimbabwe	124	129	116	115
Eastern Africa	Zambia	125	131	134	112
Eastern Africa	Uganda	128	139	127	111
Eastern Africa	Mozambique	132	138	136	119
Middle Africa	Central African Republic	133	136	34	138
Eastern Africa	Ethiopia	134	146	113	104
Western Africa	Cabo Verde	136	122	88	146
Eastern Africa	Madagascar	137	141	145	124
Eastern Africa	Rwanda	142	142	141	135
Eastern Africa	Malawi	143	147	125	137
Eastern Africa	Burundi	145	148	135	143
Western Africa	Gambia	148	149	131	151
Eastern Africa	Eritrea	149	152	142	149
Western Africa	Niger	151	151	104	131

Source: UNIDO, CIP database 2020.

Table 10: The Six CIP Indicators for The African Economies, Classified According to Their Global Rank

Economy	Dimension 1		Dimension 2		Dimension 3	
	MVA per capita (rank)	Manuf. export per capita (rank)	Industrialization intensity (rank)	Export quality (rank)	Impact on world manufac. exports (rank)	Impact on world MVA (rank)
South Africa	81	66	72	62	37	43
Morocco	93	79	37	35	53	56
Egypt	86	114	59	68	56	32
Tunisia	84	65	49	29	62	77
Eswatini	58	60	25	63	106	113
Mauritius	59	64	112	75	107	110
Botswana	99	50	137	74	81	127
Namibia	89	67	111	123	100	116
Algeria	126	103	149	142	69	70
Nigeria	116	140	67	113	88	35
Congo	130	71	134	24	86	128
Côte d'Ivoire	118	119	82	129	93	83
Senegal	119	118	56	97	103	94
Angola	110	124	135	105	96	68
Gabon	90	82	132	146	113	122
Ghana	115	129	100	148	108	74
Kenya	131	132	116	111	102	79
Cameroon	123	135	89	140	122	84
United Republic of Tanzania	144	130	143	52	92	98
Zimbabwe	135	122	107	121	111	115
Zambia	133	128	128	135	114	107
Uganda	141	138	121	126	121	102
Mozambique	145	137	119	143	123	111
Central African Republic	137	133	70	1	134	140
Ethiopia	143	146	110	106	128	81
Cabo Verde	121	121	91	94	144	146
Madagascar	150	131	145	134	116	131
Rwanda	146	143	138	132	135	134
Malawi	148	144	113	125	141	133
Burundi	151	148	125	139	146	142
Gambia	149	150	148	61	150	149
Eritrea	134	152	142	130	151	141
Niger	152	136	123	90	126	137
Eastern Africa	135	132	125	118	122	114
Middle Africa	118	109	112	83	110	108
Northern Africa	97	90	74	69	60	59
Southern Africa	82	61	86	81	81	100
Western Africa	127	130	95	105	116	103
Africa (average)	120	114	106	99	106	102

Source: UNIDO, CIP database 2020.

In Table 10, If we want to delve deeper into the analysis about why some countries perform better in some dimensions than in others, we have to examine the six CIP indicators (two for each dimension).

In our example, South Africa's economy performs better in the dimension world impact than in the capacity to produce and export because it ranks 37 and 43 in terms of its impact on world manufactured exports and on world MVA, respectively, while it ranks 81 and 66 in terms of MVA per capita and manufactured exports per capita, respectively.

In other words, given its population size, South Africa has a limited capacity to produce and export its manufactured products, recording values of MVA per capita and manufactured exports per capita that are below those of other economies further below in the CIP ranking, for example, Eswatini and Mauritius.

The opposite can be said about the third dimension, world impact: South Africa's shares in world MVA and in world manufactured exports are considerably higher than in many other economies, thus indicating advancements in their relative industrial competitiveness.

6. Pillars That Determine the Non-Oil Commodities Competitiveness in The Global Market

From all those facts and figures above, we can therefore summary and say that the major pillars that determine the non-oil commodities competitiveness in the global market include:

- i. Product Quality
- ii. Production Capacity
- iii. Capacity To Export
- iv. Export Market Shares/Size
- v. Market Access
- vi. Technological Upgrading and Innovation Dynamic

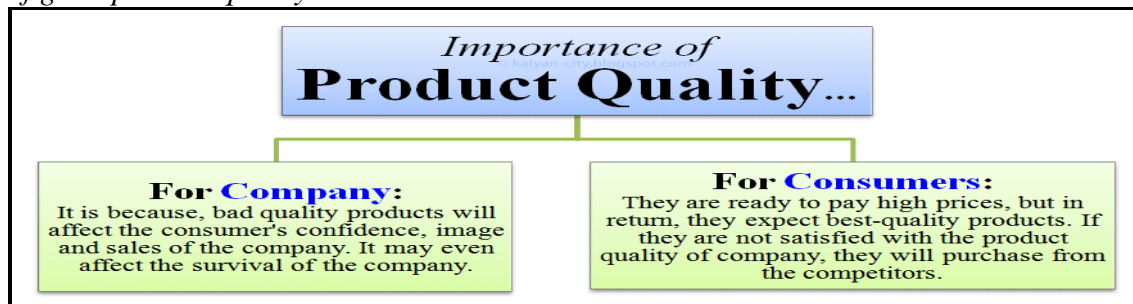
That is if all other factors (internal factors) remained constant these are factors that determine the non-oil commodities export competitiveness in the global market. This commonly-used phrase stands for 'all other things being unchanged or constant' is "Ceteris Paribus." It is used in economics to rule out the possibility of 'other' factors changing. That is the specific causal relation between two variables is focused. But can other things be equal.

Product Quality

Product quality refers to how well a product satisfies customer needs, serves its purpose and meets industry standards. Quality manufacturing is crucial for every product, especially in today's global and local dynamic market where consumers are more educated and desire quality products. But achieving top quality in manufacturing and production not only means delivering a faultless and fully functional product or service. Quality in production is important to all types of businesses and it is often the driving force behind their success.



Businesses are faced with increased demand for quality products, supply chain disruptions – and not to mention strict regulations. In an increasingly competitive world, it's important to understand the *value of good product quality* as a manufacturer.



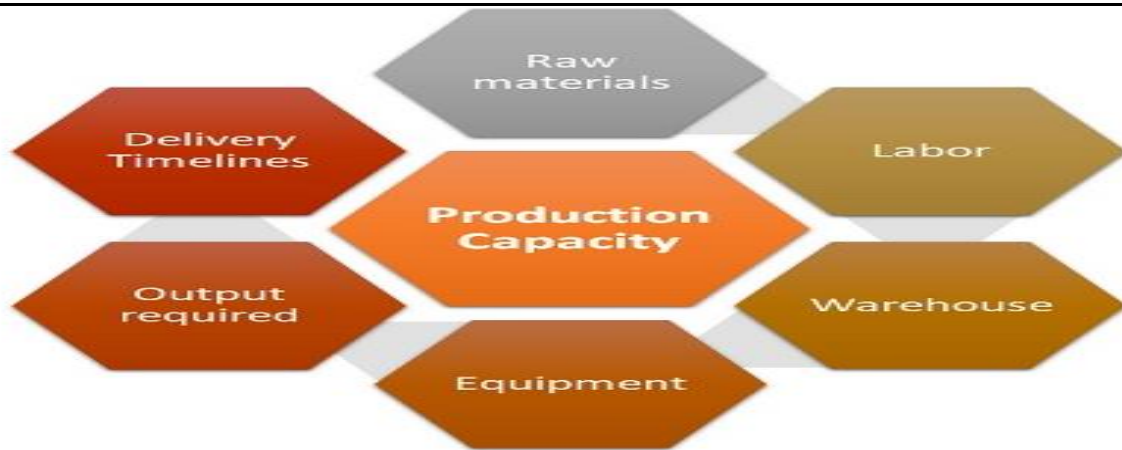
A key lever in the success of any firm is product quality. While perhaps the most important single factor affecting business performance, quality's role in foreign markets has received little research attention



Production Capacity

What is production capacity? Production capacity is the maximum product output a company can produce using its available resources over a specified amount of time. This metric is important because it informs a manufacturer's critical business decisions in both the near and long-term.

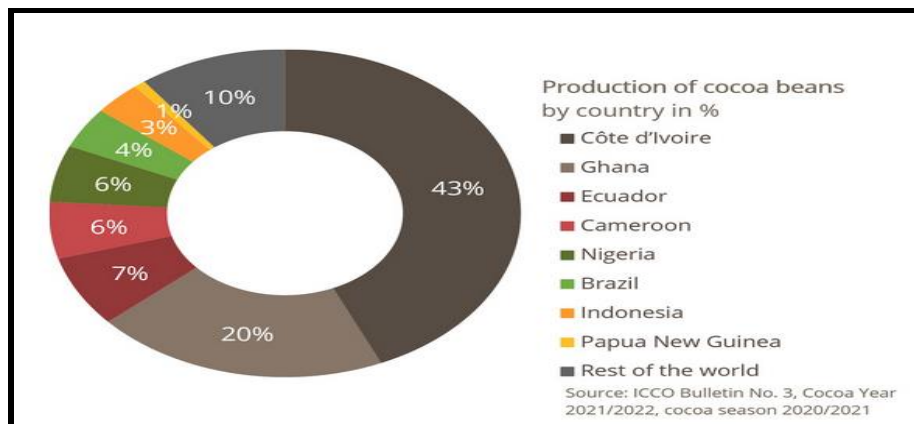
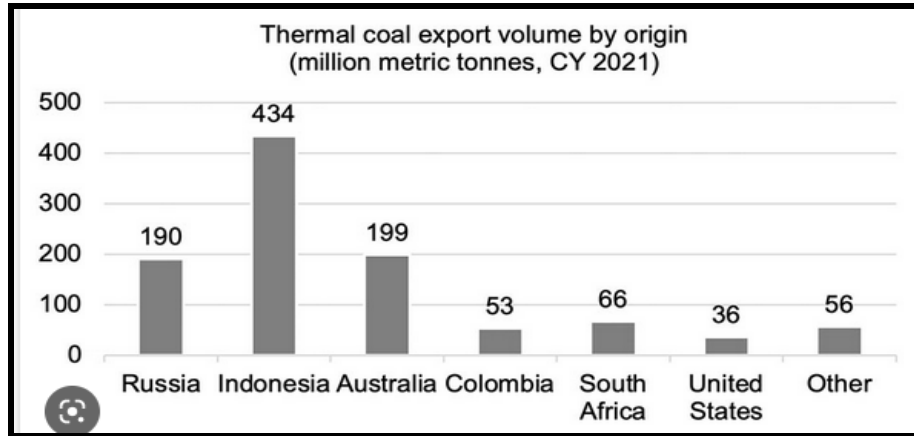
Production capacity: the constrains limit industrial production. Production capacity is the maximum possible output of a manufacturing business, measured in units of output per period. Knowing your production capacity gives you the chance to improve production planning and production scheduling, give more accurate lead times, and forecast your cash.



As already mentioned, the capacity to produce is one of the pillars of the CIP index and is key for industrial competitiveness. High competitiveness requires a high capacity to produce a suitable amount of quality products within a certain time span to meet the requirements of domestic and foreign markets. We expect that countries with a greater capacity to produce manufactured goods will also exhibit higher shares of MVA in GDP, as well as a higher MVA per capita. If manufacturing is indeed the engine of growth for a specific country, then the growth rate of MVA should be higher than the rest of the economy, which would imply an increasing share of MVA in GDP, together with a rapidly growing MVA per capita.

Export Capacity

The capacity to export manufactured goods is another pillar of industrial competitiveness and reflects the capacity of the domestic manufacturing industry to meet foreign demand. One widely used indicator to measure a country's capacity to export is its share of manufactured exports in total exports. The higher the manufacturing contribution to the country's total exports, the higher its capacity to export and its relevance for the economy in terms of GDP, trade balance and inflows of foreign currency. Export capacity constraints (ECCs) affect resource misallocation and aggregate productivity by distorting the firm's export mode.



UNCTAD considers a country to be commodity export dependent when more than 60% of its total merchandise exports are composed of commodities. Commodity dependence makes countries more vulnerable to negative economic shocks. It can have a negative impact on export and fiscal revenues and adversely affect a country’s economic development.”

Who is the biggest exporter in Africa?

Top African Export Countries

Rank	African Entity	2021 Value (US\$)
1	South Africa	\$123,734,050,000
2	Nigeria	\$47,570,421,000
3	Egypt	\$40,701,704,000
4	Algeria	\$37,322,033,000

Côte d'Ivoire and Kenya and the other two economies are on top in Africa.

Export Market Shares/Size

Market share is the proportion (usually percent) of the total market held by one particular company. The company that has the biggest market share is known as the brand leader. Market share is a good measure of how successful a company is especially if it is measured over time and compared to close competitors

Market share measure the sale of a brand or product relative to the overall size of the market. The difference between the market share and market size measures is price, as Revenues = Units Sold X Price.

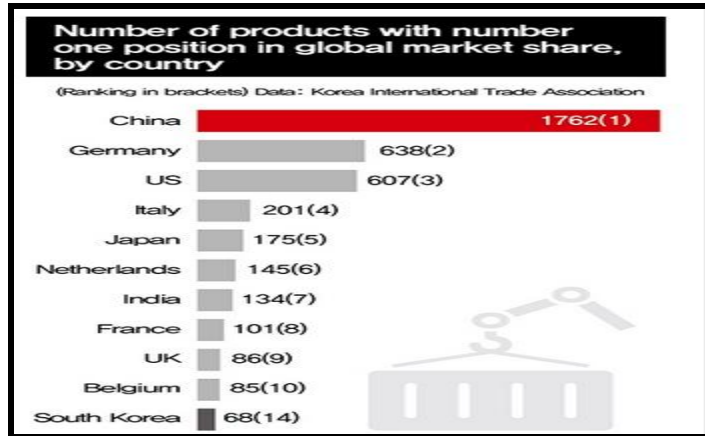
Market size can be given in volume of product sold or value of products. This can therefore be calculated by adding all the different company's sales value or volume together. Market share can be used over time to show if a market is growing or declining. Various terms are used to describe the market based on the level of narrowing, with each narrowing reducing the size of the market:

- Total population
- Potential market
- Available market
- Qualified available market
- Target market
- Penetrated market

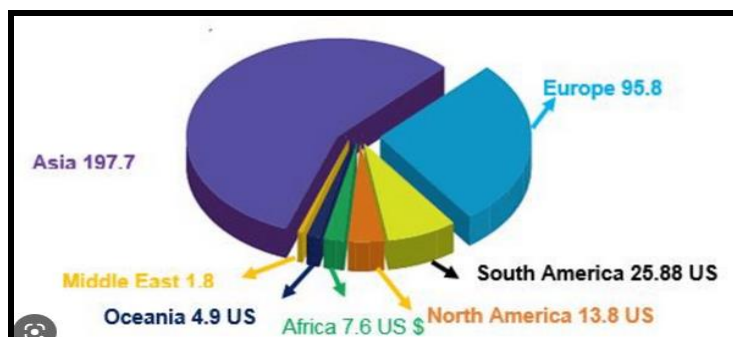
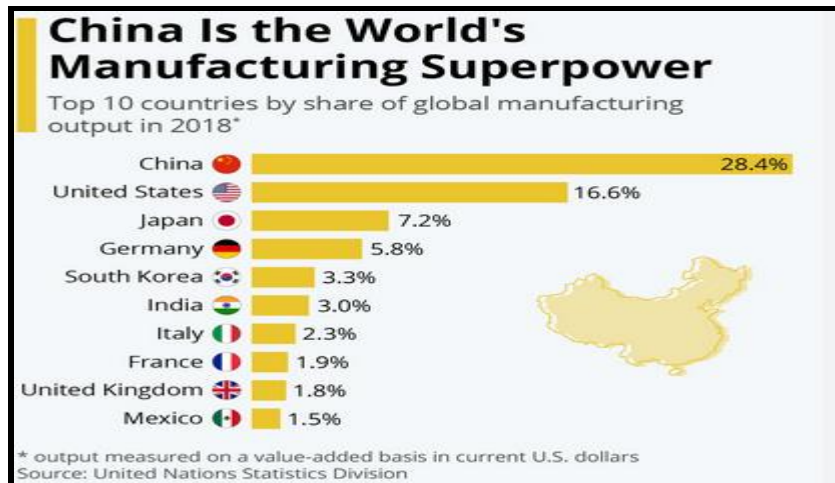
Market Share By Volume

$$\left(\frac{\text{Your Total Units Sold}}{\text{Total Units Sold In The Market}} \right) \times 100$$

$$\text{Core Target Market} \times \text{Potential Penetration of Target Market} = \text{Market Size}$$



Unfortunately, the technological trajectory for these countries is clear: they regressed from a situation in which they were adding some value to their natural resources to a new situation in which they export pure commodities without processing them



Region wise export market share in the world (in US\$ million)

Table 11: Market Size of GCI, Ranking 15 Top Economies in the World

Economy	Rank (out of 141 countries)	Market Size	
		Market Size Rank	Score
United States	2	2	99.5
Japan	6	4	86.9
Germany	7	5	86.0
United Kingdom	9	8	81.8
France	15	9	81.6
Korea Rep	13	14	78.9
Canada	14	16	76.9
Taiwan, China	12	19	74.7
Netherlands	4	20	74.3
Hong Kong SAR	3	28	74.1
Singapore	1	27	71.5
Switzerland	5	39	66.2
Sweden	8	40	65.4
Denmark	10	55	59.9
Finland	11	60	57.8

Source: World Economic Forum, 2019

Table 12: Market Size of GCI, Ranking 16 Africa Countries in WEF

Economy	Rank (out of 141 countries)	Market Size	
		Market Size Rank	Score
Egypt	93	23	73.6
Nigeria	116	30	71.1
South Africa	60	35	68.6
Algeria	89	38	66.5
Morocco	75	52	60.5
Ghana	111	65	64.2
Tunisia	87	71	53.5
Kenya	95	72	52.7
Uganda	115	86	47.4
Senegal	114	97	43.0
Botswana	91	112	39.2
Rwanda	100	112	39.2
Namibia	94	112	36.7
Mauritius	52	119	37.2
Cape Verde	112	140	17.5
Seychelles	76	141	17.1

Source: World Economic Forum, 2019

Market Access

Market access is a company's ability to enter a foreign market by selling its goods and services in another country. Market access is normally subject to conditions or requirements such as customs tariffs, tariff rate quotas, trade remedies, regulatory requirements and preferential regimes applicable to your product. Enhanced market access can induce a supply response.

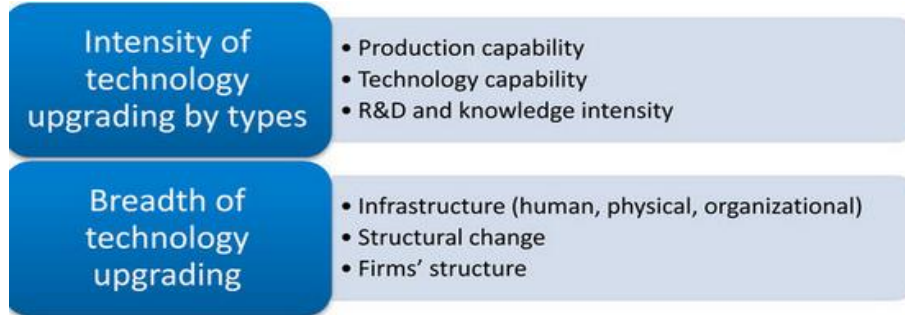


Expanding market access is therefore often a more achievable goal of trade negotiations than achieving free trade. Market access is often negotiated between countries for their mutual benefit, but it may not necessarily result in freer trade. An important step in improving market access requires the further lowering of trade barriers for developing countries at all stages of development. Actions include tackling high tariffs, and tariff peaks and escalation facing items of export interest to developing countries' agricultural and non-agricultural exports; undertaking commercially meaningful reform in agriculture, including substantial improvement in market access for developing countries, phasing out of export subsidies and substantial reduction in trade-distorting domestic support.

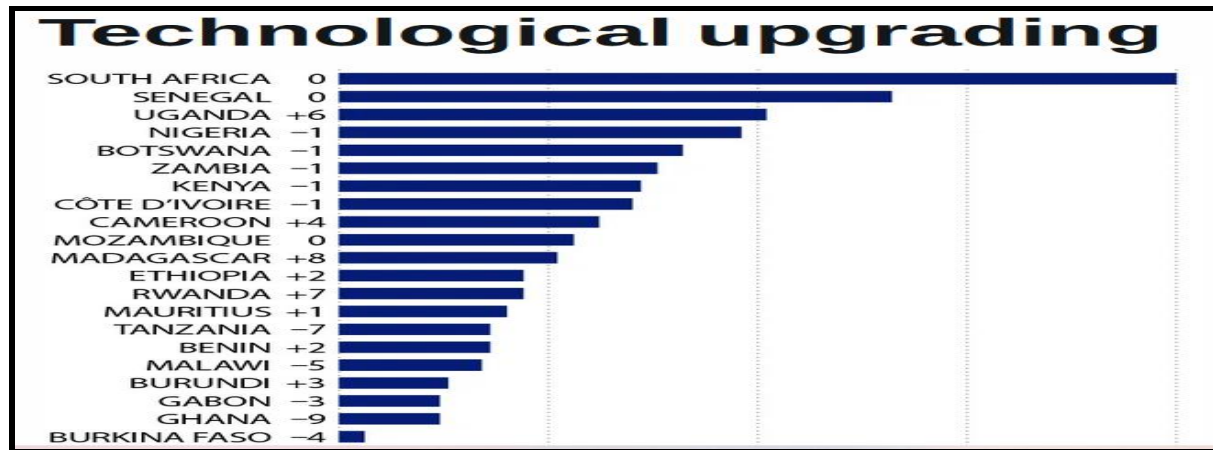
Technological Upgrading and Innovation Dynamic

Technology upgrading is the process of enhancing the technological capabilities of firms, sectors, regions, or countries. The capacity to move up the technological ladder is a pillar of industrial competitiveness.

With technology upgrading there is emergence of new start-up firms with high technological capabilities and product or process innovations. Export growth clearly reflects a mixture of innovation — which raises demand and the competitive abilities of innovative products. The argument is that innovative exporters are more likely to succeed because innovation helps reduce production costs and raise productivity, or that it contributes to the development of new products and services with unique characteristics or higher quality



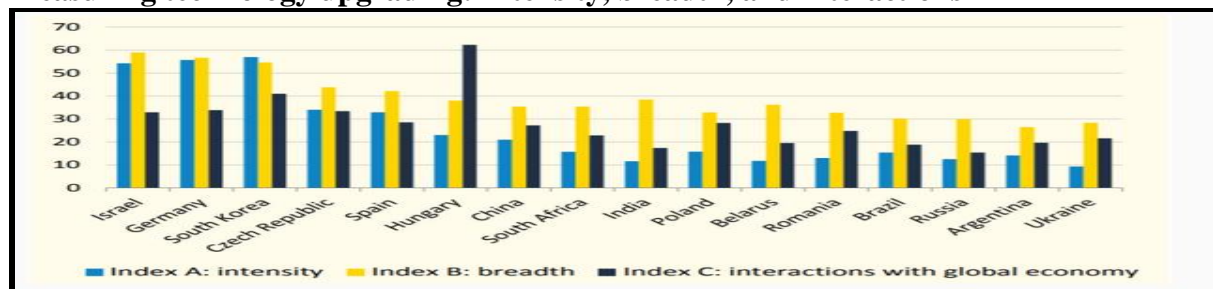
The manufacturing, agribusiness, energy, transport and infrastructure sectors play a major role in the knowledge economy. As well as generating much of the research and development that contributes to innovation, these industries constitute a huge market for new technologies capable of raising productivity



Source: African center for economic transformation.

The score is the average for 2009–11.

Measuring technology upgrading: Intensity, breadth, and interactions



Source: Radosevic, et.al. 2019.

Table 13: Top 15 Economies in WEF: Innovation Capability

Economy	Rank (out of 141 countries)	Innovation Capability	
		Innovation Capability Rank	Score
Germany	7	1	86.8
United States	2	2	84.1
Switzerland	5	3	81.2
Taiwan, China	12	4	80.2
Sweden	8	5	79.1
Korea Rep	13	6	79.1
Japan	6	7	78.3
United Kingdom	9	8	78.2
France	15	9	77.2
Netherlands	4	10	76.3
Denmark	10	11	76.2
Finland	11	12	75.8
Singapore	1	13	75.2
Canada	14	16	74.0
Hong Kong SAR	3	26	63.4

Table 14: Top 16 Africa Economies in WEF: Innovation Capability

Economy	Rank (out of 141 countries)	Innovation Capability	
		Innovation Capability Rank	Score
Seychelles	76	45	46.1
South Africa	60	46	45.2
Egypt	93	61	39.6
Mauritius	52	70	38.1
Kenya	95	78	36.3
Namibia	94	80	35.6
Morocco	75	81	35.1
Algeria	89	86	34.4
Ghana	111	89	32.9
Tunisia	87	92	32.6
Nigeria	116	94	32.2
Senegal	114	96	31.9
Botswana	91	99	31.4
Rwanda	100	99	31.4
Uganda	115	111	29.5
Cape Verde	112	132	24.8

CONCLUSION

In this paper, we provided insight into the dynamics of the global market through different institutions such as WCI, WEF, The World Merchandise Exports and Imports by Commodity and UNIDO Competitive Industrial Performance (CIP) Index and using factors and application of the key elements

contributing to the constant changing global environment. There is a notion that some nations have been investing huge amounts on some elements such as data collection, ICT infrastructure, advanced technology, to name few to promote their non-oil commodities export sectors. They have however not paid enough serious attention to key elements that influence the global market such as production quality, production capacity, export capacity, export market shares/size, market access, technology, higher skilled workforce and continuous innovation. Although, we subscribe to the technological change element, it is not sufficient to sustain competitive edge. It has been singled out that successful nations in the global market such as United States, Singapore, China, Germany, Japan, Switzerland, Netherlands embraced globalization a long time ago, and as a result, they lead the global market. Thus, it is vital to understand the dynamics and main drivers of the global market which have resulted in their being so unpredictable.

On Africa there is lots of work to be done. African countries are heavily specialized in the export of primary products and resource-based products, which recorded a negative growth in terms of international demand. With foreign demand for the main source of African exports declining, competition seems to have intensified, as suggested by Africa's declining market share in both categories. On a more positive note, Africa has already managed to improve its export structure, increasing the share of medium- and high-technology products in its manufactured exports. This is particularly relevant for medium-technology products, as this is the only manufacturing category in which Africa has slightly increased its market share in world exports. Even though Africa still does not have a comparative advantage in low-, medium-or high- technology products, increasing its market share in these categories is highly desirable. It is clear that the African continent is far from reaching its full industrial potential and therefore, additional efforts should be made to accelerate industrialization in Africa and ensure that its industrial sector assumes a major role in the continent's market.

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