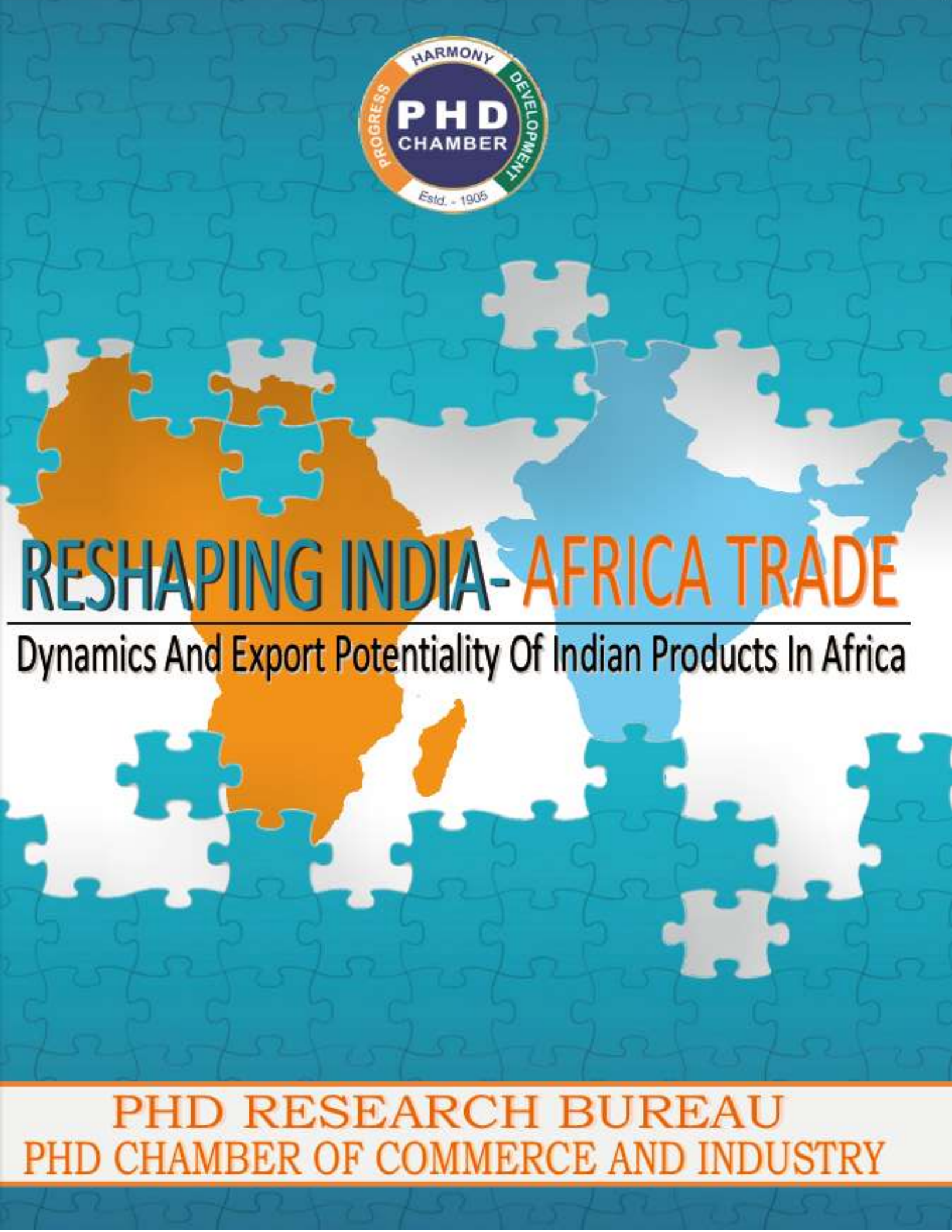

RESHAPING INDIA-AFRICA TRADE

Dynamics And Export Potentiality Of Indian Products In Africa

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Reshaping india-africa trade

Dynamics and export potentiality of Indian products in Africa

July 2017

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Mr. Gopal Jiwarajka

★★★★★★★★★★

"The rapport between India and Africa emanates immense promise for the future. In the coming years, Africa and India are going to drive a significant portion of global demand and income."

★★★★★★★★★★

From President's Desk

India and Africa have embarked upon establishing new areas of trade and development. The partnership has remained vivacious, extending and touching greater heights in terms of burgeoning trade and investment to technology transfers, knowledge sharing and skills development.

The trade dynamics between India and Africa is of immense potential. The rapport between India and Africa emanates immense promise for the future. In the coming years, Africa and India are going to drive a significant portion of global demand and income.

There is a new economic growth story emerging from both the regions as they possess all the pre-requisites to become a major growth pole of the world. The regions are reiterating the common desire to expand economic cooperation and trade and investment linkages between them. There exists unlimited potential which needs to be tapped by both the regions to mark greater heights in the present times of crisis and also in future.

PHD Chamber is working diligently for building stronger ties with African countries and implement deem policy measures to bolster existing trade dynamics between India and Africa.

I would like to wish all success for the 3rd Annual International Conference and Exhibition on Africa: A Land of Opportunities which focuses on developing towards sustainable partnership.

Mr. Anil Khaitan

★★★★★★★★★★

"Reinforcement of sentiments, confidence, and trade between India and Africa engendered prospects of substantial development. Both groups have embarked upon utilizing new dimensions of their relationship."

★★★★★★★★★★

From Senior Vice President's Desk

India, the ancient civilization and Africa, the cradle of human civilization, both share common historical experiences, goals, visions, and hurdles. Indian Ocean acts as a connecting element in India – Africa trade.

In the present world, current dynamics amid both regions has been the understanding that led to budding areas of co-operation, which include economic field, energy sector, human resources development, capacity building and security and maritime co-operation. Further, reinforcement of sentiments, confidence, and trade between India and Africa engendered prospects of substantial development. Both groups have embarked upon utilizing new dimensions of their relationship.

Indeed, the past few years have witnessed a recognized reorientation in outlook of India-Africa trade. In view of the importance of the relationship for sustainable economic development, PHD Chamber calls for greater cooperation in the field of trade and investment.

PHD Chamber has always recognized the importance of African nations in India's trade scenario, and remains an enthusiastic promoter of India and Africa bilateral relationship.

My best wishes for the 3rd Annual International Conference and Exhibition on Africa: A Land of Opportunities.

Mr. Rajeev Talwar

★★★★★★★★★★

"Africa and India should invigorate their bond further by tactfully solving the range of sticky issues between them. In fact, centuries old ties have been firmed up on the back of India's consistent aid to anti-colonial and anti-racist liberation struggles in Africa."

★★★★★★★★★★

From Vice President's Desk

India's relationship with African countries can be classified as distinguished and unique. Both the economies are driven by similar factors such as favourable demographic dividend, rising per capita income, among others.

Africa and India should invigorate their bond further by tactfully solving the range of sticky issues between them. In fact, centuries old ties have been firmed up on the back of India's consistent and growing relationship with various countries in Africa in the recent years.

The untapped opportunities that have been created between India and African countries are profound and inordinate. With continuous talks and meets, India has evinced signs of forging a long term partnership that will help in promoting sustainable development, security and a better rapport between the people of India and Africa.

I am sure that India-Africa relations will grow towards new heights in the coming years. I wish all the grand success for 3rd Annual International Conference and Exhibition on Africa: A Land of Opportunities at PHD House.

Mr. Ranjeet Chaturvedi

★★★★★★★★★★

"India's trade complementarity has significantly increased with various African countries. The export pattern has become more aligned with the import pattern of Africa, which indicates potential rise in exports towards African countries."

★★★★★★★★★★

From Chairman's Desk

International Affairs Committee for Africa and Middle East

Africa, as a whole, has witnessed a tremendous shift in growth trajectory over the last 15 years. Its average real GDP has grown from 2% in 1980 – 90s to 5% during 2001 – 14. There are high expectations that the trend will continue, and further strengthen in the coming years.

Conversely, India has become the fastest moving emerging economy. The government's focus on financial reforms, infrastructure build-up, industrial development, growth of MSMEs and agriculture reforms is highly encouraging.

India's trade complementarity has significantly increased with various African countries. The export pattern has become more aligned with the import pattern of Africa, which indicates potential rise in exports towards African countries. Further, based on regions, India's trade complementarity with Western Africa and Eastern Africa has been rising continuously.

I am sure that the 3rd Annual International Conference and Exhibition on Africa: A Land of Opportunities will become a useful forum for the industry stakeholders, policy makers and researchers to discuss about the practical aspects of doing business in Africa as well as to know about the substantial potential for bilateral economic cooperation between India and Africa.

PHD Chamber is working diligently to strengthen the existing ties between India and Africa through continuous dialogue and discussions both at micro and macro level.

I wish all the success to PHD Chamber for the 3rd Annual International Conference and Exhibition on Africa: A Land of Opportunities.

Mr. Saurabh Sanyal

★★★★★★★★★★

"India and Africa share a similar and opulent history bound by tremendous business and investment opportunities in the coming years. Also, they share favorable demographic dividend, complimenting the growth dynamics."

★★★★★★★★★★

From Secretary General's Desk

PHD Research Bureau under the tutelage of PHD Chamber of Commerce and Industry has come up with a report on 'Reshaping India-Africa trade: Dynamics and export potentiality of Indian products in Africa'. It gives me an immense pleasure and honour to present it to our esteemed readers.

The report articulately examines the trade between India and Africa. Moreover, the report also analyses the pattern of trade and identified the areas of growth. India and Africa share a similar and opulent history bound by tremendous business and investment opportunities in the coming years. Also, they share favorable demographic dividend, complimenting the growth dynamics.

I would like to appreciate the efforts of members and various industry stakeholders for participating in the survey conducted by PHD Research Bureau to analyze India's opportunities for trade and investment in Africa, and for providing their valuable inputs and deep insights while preparing this report.

I commend and appreciate the efforts of PHD Research Bureau team led by Dr. S.P. Sharma, Chief Economist; and Mr. Rohit Singh, Research Associate for preparing this comprehensive report.

I wish all success for the 3rd Annual International Conference and Exhibition on Africa: A Land of Opportunities and envisages the event will put India-Africa relations on a new growth trajectory.

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List of Acronyms

ACP	African, Caribbean and Pacific Group of States
AD	Anti-Dumping,
BIT	Bilateral Investment Treaty
BOP	Balance of Payments
CAGR	Compound Annual Growth Rate
CEMAC	Economic and Monetary Community of Central Africa
CETA	Comprehensive Economic and Trade Agreement
CFC	Controlled Foreign Company
CFIA	Cooperative and Facilitation Investment Agreement
CFTA	African Continental Free Trade Agreement
COMESA	Common Market for Eastern and Southern Africa
CV	Countervailing Duties
DOB	Denial Of Benefits
DTT	Double-Taxation Treaty
EAC	East African Community
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EPA	Economic Partnership Agreement
ERP	Effective rate of protection
ES	Export Subsidies
FTA	Free Trade Agreement
GATS	General Agreement on Trade in Services
GLI	Grubel Lloyd Index
GTIS	Global Trade Information Services
GVC	Global Value Chain
HHI	Hirschman Index
HS	Harmonized Commodity Description and Coding System
IMF	International Monetary Fund
IPA	Investment Promotion Agency
ISIC	International Standard Industrial Classification
JV	Joint Venture
LDC	Least Developed Country
LLDC	Landlocked Developing Country
M	Imports
M&As	Mergers And Acquisitions
MFN	Most Favoured Nation
NES	Not Elsewhere Specified
NTM	Non-Tariff Measures
PAIC	Pan-African Investment Code
PR	Preference Tariff Rate
PTA	Preferential Trade Agreement
QM	Quality Margin
QR	Quantitative Restrictions
RCEP	Regional Comprehensive Economic Partnership
RTIA	regional trade and investment agreements
SADC	South African Development Community
SDGs	Sustainable Development Goals
SEZ	Special Economic Zone
SG	Safeguard measures
SHI	Sectoral Hirschman Index
SITC	Standard International Trade Classification
SPS	Sanitary and Phyto-sanitary Measures
SSG	Special Safeguard Measures
STE	State Trading Enterprises
TBT	Technical Barriers to Trade
TCI	Trade Complementarity Index
TIFA	Trade And Investment Framework Agreement
TII	Trade Intensity Index
TIP	Treaty With Investment Provision
TISA	Trade in Services Agreement
TPP	Trans-Pacific Partnership Agreement
TRQ	Tariff-Rate Quotas
UNCTAD	United Nations Conference on Trade and Development
USD	United States Dollar
UV	Unit Value
WAEMU	West African Economic and Monetary Union
WEF	World Economic Forum
WITS	World Integrated Trade Solution
WTO	World Trade Organization
X	Exports

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EXECUTIVE SUMMARY

India's rapport with Africa is highly distinguished and unique. India-Africa relationship has been built upon deep bond of friendship and mutual faith beyond strategic ties. Apart from sharing one-third of the world population, both nations enjoy the favorable phase of the demographic dividend and rising per capita income.

On the macroeconomic front, Africa changed gears in economic growth during the last 15 years. Although the growth felt turbulence due to negative externalities associated with weakness in the global economy and plummet in prices of key commodities, domestic demand, improved supply conditions, prudent macroeconomic management and favourable external financial flows provided the much necessary cushion as well as the impetus.

India is Africa's 4th largest trading partner, with a trade of USD 51 billion in 2015-16 which grew from USD 5.25 billion in 2001-02. India majorly imports commodities and exports manufactured products. Indian exports to Africa jumped to USD 24 billion in 2015-16, against USD 2.8 billion in 2001-01. Similarly, India's imports from Africa rose to USD 27 billion in 2015-15 from USD 2.5 billion in 2001-02.

More than one-third of the imports in Africa are Consumer goods, followed by capital goods (27.2%), intermediate goods (23.8%), and raw materials (11.9%) in 2015. In case of imports from India, Africa has revealed its demand in favour of consumer goods (63%), followed by Intermediate goods (19.5%), capital goods (14.6%), and raw materials (3.5%). Notably, the share of consumer goods in imports from India rose sharply from 50.2% in 2011 to 62.4% in 2015. Indian exports to pan-Africa witnessed a dramatic shift in favour of Eastern Africa from a share of 32% in 2010 to 40% in 2015. Second best region in Africa turned out to be Western Africa with a share of 22% in 2015, registering a jump of 2% since 2010.

India holds significant competitiveness advantage in exporting Cereals (HS-10), mineral fuels and products thereof (HS-27), Knitted apparels and clothing (HS-61), not-knitted apparels and clothing (HS-62), ships and boats (HS-89) among other products in Africa. Conversely, India faces stiff competition in the product sectors such as aircraft, spacecraft and parts thereof; vehicles; articles of iron and steel; and pharmaceutical products, wherein it holds comparative advantage but lower than compared to other top exporters in Africa.

To develop a prospective roadmap for Indian exports in the African market, the determinant analysis revealed various factors such as GDP, distance and their response to Indian exports. It was quite evident from the gravity framework that Indian exports are highly and significantly responsive towards alterations in GDP of India, GDP of African countries, the distance between India and African countries, and Per capita income of India and African countries. As compared to Indian GDP, response elasticity of African countries' GDP bore more positive results for Indian exports. In the case of distance, the coefficient held a negative value indicating that relatively higher Indian exports to African countries with lower distance. However, remoteness (used as a fungible variable for distance in Fixed Effect Model) viz. income-weighted distance, bore positive coefficient.

India's trade complementarity has significantly increased with various African countries. India's export pattern has become more aligned with the import pattern of Africa, which indicates potential rise in exports towards African countries. Further, based on regions, India's trade complementarity with Western Africa and Eastern Africa is more than other regions in Africa. Pertinent to alignment of Indian exports with African demand, Western and Southern Africa may exhibit rising patterns for Indian exportable products.

On the investment front, India is the 5th largest investor in Africa, total Indian FDI outflow to Africa stood at USD 52.6 billion, viz. about 21% of the Indian overseas investment outflows and 19.2% of Africa's overall FDI inflows. To further bolster the relations, India-Africa inked 19 agreements in 2015 in areas of defence, information technology, small industry, sports, drug trafficking, water resource management, and arts and culture among others. Also, food security, healthcare, energy security, mining and manufacturing emerged as vital areas of cooperation.

Based on the country effects in Fixed effect Model, various countries in Africa registered positive effect on Indian exports over time, including Benin, Comoros, Congo, Djibouti, Egypt, Eritrea, Gambia, Kenya, Liberia, Libya, Mauritius, Mozambique, Namibia, Sao Tome & Principe, Seychelles, Sudan (North + South), Swaziland, Tanzania, Togo, and Uganda. Conversely, certain countries exhibited negative traits for Indian exports such as Algeria, Angola, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Cote d'Ivoire, Equatorial Guinea, Ethiopia, Gabon, Ghana, Guinea, Guinea Bissau, Lesotho, Madagascar, Malawi, Mali, Mauritania, Morocco, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Tunisia, Zambia, and Zimbabwe.

On a positive note, both Indian GDP and African GDP bear propelling force for Indian exports. Notwithstanding the positive impact of GDP on Indian exports, there lies mixed response for Indian exports by different countries in Africa. In a nutshell, over the years, selected variables have positively impacted Indian exports.

The comprehensive survey conducted on the barriers faced by the Indian exporters in Africa also unveiled some startling results. Among the major impediments encountered by the Indian exporters in the African market, fluctuating exports prices; lower level of transparency in Africa's regulations; custom clearances, classification, and procedures; and competition and licensing norms stood out as the most severe and trade reducing. Also, it was disclosed by a majority of the respondents that the overall degree of tariff faced by their products in African market has been moderate. However, the majority also responded that the trend in general barriers in African market has remained same and there hasn't been much improvement compared to the early 2000s. A greater portion of the survey response revealed that criterion of rules of origin, countervailing duty, advanced deposit requirement, and variable import levies acted as other associated charges, other than the tariff, that affected the firm's export in Africa. Though not trade reducing, Sanitary and Phytosanitary (SPS) measures pertaining to plant, animal, and human health are found to be stringent by the majority of the survey respondents. Similarly, packaging and labeling, and safety regulations were reported as highly stringent under the technical barriers to trade (TBT) norms established in Africa.

The overall past experience of Indian firms in Africa, reportedly, have been extending and ameliorating. However, certain areas were highlighted by majority of the firms were trade debilitating such as cases of rejection without informing, and friction with the authorities. Nonetheless, around 92% of the respondents

reported they had an overall excellent experience while exporting to African countries in the past. On the trade policy front imposed in Africa, majority of the respondents found the taxation policy, subsidies to be expediting towards Indian exports into Africa. Also, majority reported that the government monopolies were not negatively impacting their product's competitiveness in Africa. Conversely, some of the trade policies such as competition policies, licensing requirements for foreign firms, preferential treatment towards products of other countries and preferential treatment to locals held immense repercussions for the Indian products. The level of transparency turned out to be on the slightly on the lower side, especially in the case of enquiry points, customs procedure, accessibility of laws, and changes in regulation, as reported by the majority in the survey. Another key area evident from the survey has been the ample assistance garnered by Indian firms from the Indian government in form of short-term credits, pre-shipment finance, and financial support on FOB.

India has been able to intensify its presence in African countries. India commitment towards a line a credit worth USD 10 billion for development projects in Africa over a five-year period has expanded the relations further. So far India has extended 152 lines of credits worth close to USD 8 billion to as many as 44 African countries.

In addition, India had pledged a grant assistance of USD 600 million, which includes an India-Africa Development Fund of USD 100 million and an India-Africa Health Fund of USD 10 million. It will also include 50,000 scholarships in India over the next five years and support the expansion of the Pan Africa E-Network and institutions of skilling, training and learning across Africa. The aid and assistance provided by India in Africa mainly focuses on developing human resources through education, vocational training and skill development. It is a pro-people model that will help Africa up-skill its people to prepare for its impending demographic challenges.

Shifting on to the financial implication of exporting to Africa revealed that the expected financial cost to comply with the non-tariff measures imposed in Africa is above INR 5 lakh, as per the survey results. In addition, the bulk of the respondents found the legal cost and technical investment to be less than INR 25 lakh each. Eastern Africa has been chosen by the majority of the survey respondents that holds the best export environment in Africa, followed by Western Africa. According to a ranking of potential problems faced by the surveyees, while exporting to the African market, fluctuation in export price and exchange rate ranked the topmost difficult issues whereas quality standards and anti-dumping duties ranked as the least-most barriers. The survey results boiled down to slow but gradual reduction in the degree of various barriers imposed on Indian exports in Africa. Notably, the barriers are heterogeneous in nature and different in scope by different nations in Africa.

The business climate has been growing in Africa. Around 600 Indian companies invested in Africa but the top 11 companies account for about 53% of the total Indian investment flows to Africa. Indian firms have invested profoundly in natural gas projects in Mozambique and are exploring the potential for others in Tanzania. India also pitched itself to South Africa as an attractive destination for defence production and gained South Africa’s endorsement for its bid for membership of the Nuclear Suppliers Group. Pharmaceuticals, Information and Communications Technology and services, automobile sector, power sector among others are the major receivers of funds from India.

The study has made an attempt to project the volume of exports to Africa, which is expected to touch USD 70 billion in 2021. In the coming years, India will see tremendous rise in exports towards Egypt at USD 7.7 billion, Kenya at USD 8.1 billion, South Africa at USD 9.5 billion, and Tanzania at USD 5 billion by 2021[1]. Also, countries such as Uganda, Sudan (North and South), Senegal, Mauritius, Mozambique, Ghana, Ethiopia, Djibouti, Benin and Angola among others will witness a surge in imports from India.

Based on the comparative advantage analysis, various thrust (sustainable) and potential products are identified for different regions in Africa where India holds tremendous advantage. Sectors include mineral products, textiles and apparels, footwear, chemical, plastics and rubber products among others. To facilitate the spread of Indian businesses in Africa, there is a need for greater regional integration in Africa. With increased ties in both the private and government sectors, the next area of engagement between India and Africa should be on renewable energy technology.

[1] As per the projection estimates from the Gravity Model

1 INTRODUCTION

1.1 Introduction

India-Africa rapport has been built upon deep bond of friendship and mutual faith beyond strategic ties. The relationship between the two nations is driven by strong emotional nexus. Apart from sharing one-third of the world population, both nations enjoy the favorable phase of the demographic dividend. Historically, the connection goes way back to centuries old ties of kinship, commerce and culture, common struggle against colonialism, race for equality, dignity and justice among all people. India has always given immense effort in deepening and invigorating the Indian-African partnerships and agreements via conducting various summits and meets focusing capacity enhancement, human resource development, access to Indian market, and support for Indian investments in Africa.

In the present world, current dynamics amid both regions has been the understanding that led to budding areas of co-operation, which include economic field, energy sector, human resources development, capacity building and security and maritime co-operation. Further, reinforcement of sentiments, confidence, and trade between India and Africa engendered prospects of substantial development. Both groups have embarked upon utilizing new dimensions of their relationship.

Ostensibly, Africa holds an opulent portion of around 60% of the arable land in the world, however, produces a minimal 10% of global food output. India has devoted both human capital and funds in the of low capital intensity farming and varied biodiversity conditions to bolster the results in Africa's favour. India has continued to work with Africa in the realm of human resource development, infrastructure, clean energy, environment conservation, health, education, climate change and sustainable development. India has already established itself as an increasingly superpower in sub-Saharan African trade and development. India's trade with Africa grew from USD 23 billion in 2006 to USD 60 billion in 2015 at a CAGR of near 12%.

1.2 Scope and Objective

The present study intends to extensively analyze the trade synergies of India and Africa. The study also discusses about the possible steps to further broaden this relation. With the ever changing global scenario and precarious demand; African markets are highly diverse and extensive. Interestingly, with growing purchasing power, there has been a paradigm shift in the basket of imported goods as well. African markets have always been on top of the check list of various exporters as a significant destination to export. With huge and continuously expanding consumer base, India should target Africa with all its trade might.

The study instigates on critically accessing the socio-economic status of India and Africa, wherein it focuses, based on their economic status, on where two highly populated nations stand. The primary objective of undertaking such an intensive analysis is also to develop a comprehensive understanding of Indian exports in African markets.

1.3 Methodology

The present study intends to undertake a calibrated and coalesced primary-cum-secondary approach. In goods segment, trade data will be analyzed using various mathematical tools and trade indices. The quantitative analysis will be supported by the qualitative information. For this, consultation of trade related databases, reports, journals and books will be carried out. To understand the perspective of several stakeholders related to trade in African market, the organization will organize rounds of discussion with officials from ministry, industry organizations, trade experts and officers.

The study starts-off with analyzing the macroeconomic structure of pan-Africa, to gauge the economic strength of the nation, in terms of income, population, etc. Then the study moves on to assess the current import and export structure of Africa, especially with reference to India. In order to corroborate the secondary findings during the study, a probable export forecast scenario is developed and key sectors are identified.

1.4 Terms of Reference

The coverage of study will follow the under-mentioned pillars of references:-

1. To critically analyze the trade structure of Africa with special reference given to the role of India.
2. To identify top products imported by Africa and delineate top sources for those top products.
3. To analyze the export potentiality and competitiveness between India and Africa vis-à-vis other markets.
4. To scrutinize the tariffs imposed on products exported from India into the African markets.
5. To identify and investigate the most important export barriers for our thrust products in Africa.
6. To create a trade model between India and Africa so as to measure the impact of various factors on India's export function with Africa over the years.
7. To identify sectors based on regions in Africa, wherein India holds significant advantage.
8. To identify the areas of impediment faced by the Indian firms, both domestically and internationally and further, conducting an extensive survey pertinent to the aforementioned aspect of trade with Africa.

Economic Outlook: India-Africa Macroeconomic Characteristics

2 ECONOMIC OUTLOOK: INDIA-AFRICA MACROECONOMIC CHARACTERISTICS

2.1 Introduction

Africa is the second - largest continent in the world both in size and population. Also, it homes to over 1500 languages.

Africa, as a whole, has witnessed a tremendous shift in growth trajectory over the last 15 years. Its average real GDP has grown from 2% in 1980 – 90s to 5%during 2001 – 14. There are high expectations that the trend will continue, and further strengthen in 2017. African economy, in the recent times, experienced both adverse and prosperous situations. The growth felt turbulence due to negative externalities associated with weakness in the global economy and plummet in prices of key commodities; however the domestic demand, improved supply conditions, prudent macroeconomic management and favourable external financial flows provided the much necessary cushion as well as impetus.

Notwithstanding the fragile state of economic recovery and high susceptibility due to volatile commodity prices, East Africa registered the highest growth figures, followed by West Africa and Central Africa, and lowest growth figures were registered in Southern and North Africa. To propel the African economy, monetary policy vision remained diverged as countries faced differential inflationary and currency pressures. Quantitative tightening monetary policies were pursued in countries where current accounts and exchange rates came under pressure and imported inflation increased, perhaps, due to beggar-thy-neighbour policy being pursued across the globe. On the other hand, some of the countries declined their interest rates as inflation reduced due to lower energy and food prices. On the fiscal front, governments across Africa followed prudent fiscal policies to curb the intensified and rising fiscal pressure; measures were taken to limit spending and broaden revenue base.

India has become the fastest moving emerging economy. The government's focus on financial reforms, infrastructure build-up, industrial development, growth of MSMEs and agriculture reforms is highly encouraging. Going ahead, GST implementation will enhance production possibilities, attract FDIs and increase employment opportunities in the economy by reducing the barriers between states and will make the country a common market. Macro-economic outlook is stabilizing and lead economic indicators are gathering pace, against the backdrop of a tepid and multi-speed global recovery across regions. GDP growth at 7.1% in Q1 of 2016-17 is inspiring as services sector continued to hold up, manufacturing almost sustained a momentum gathered lately due to positive sentiments in the businesses. It is highly believed that the economic reforms undertaken by the Government are highly commendable and would lead to desired outcomes in the coming times. Improvement in the productivity and efficiency of the sectors will lead to sustainable growth of the economy.

India is the fastest running economy in the world at 7.6% in 2016-17, as per the estimates of IMF.

Notwithstanding the global macro-economic slowdown and turmoil characterized by weak growth of world output, India has registered a robust and steady pace of economic growth. Also, India is increasingly becoming competitive at global charts as recently in Global Competitiveness Index 2016, India has now been ranked 35th amongst 160 countries. To attain sustained growth, timely implementation of the reforms has played the pivotal role even though sensitivity to shocks has put substantial pressure on economic growth, given that world environment is far from conducive to sustained high growth. The Indian Government has been committed to carrying the reform process forward, aided by the prevailing macroeconomic stability. India has a vast potential to raise the economic growth momentum at a higher trajectory in the coming times.

India's rapport with Africa is highly distinguished and unique. India-Africa relationship has been built upon deep bond of friendship and mutual faith beyond strategic ties. The relationship between the two nations is driven by strong emotional nexus. Apart from sharing one-third of the world population, both nations enjoy the favorable phase of the demographic dividend and rising per capita income.

India has been able to intensify its presence in African countries. India commitment towards a line a credit worth USD 10 billion for development projects in Africa over a five-year period has expanded the relations further. So far India has extended 152 lines of credits worth close to USD 8 billion to as many as 44 African countries.

In addition, India had pledged a grant assistance of USD 600 million, which includes an India-Africa Development Fund of USD 100 million and an India-Africa Health Fund of USD 10 million. It will also include 50,000 scholarships in India over the next five years and support the expansion of the Pan Africa E-Network and institutions of skilling, training and learning across Africa. The aid and assistance provided by India in Africa mainly focuses on developing human resources through education, vocational training and skill development. It is a pro-people model that will help Africa up-skill its people to prepare for its impending demographic challenges.

The business climate has been growing in Africa. Around 600 Indian companies invested in Africa but the top 11 companies account for about 53% of the total Indian investment flows to Africa. Indian firms have invested profoundly in natural gas projects in Mozambique and are exploring the potential for others in Tanzania. India also pitched itself to South Africa as an attractive destination for defence production and gained South Africa's endorsement for its bid for membership of the Nuclear Suppliers Group. Pharmaceuticals, Information and Communications Technology and services, automobile sector, power sector among others are the major receivers of funds from India.

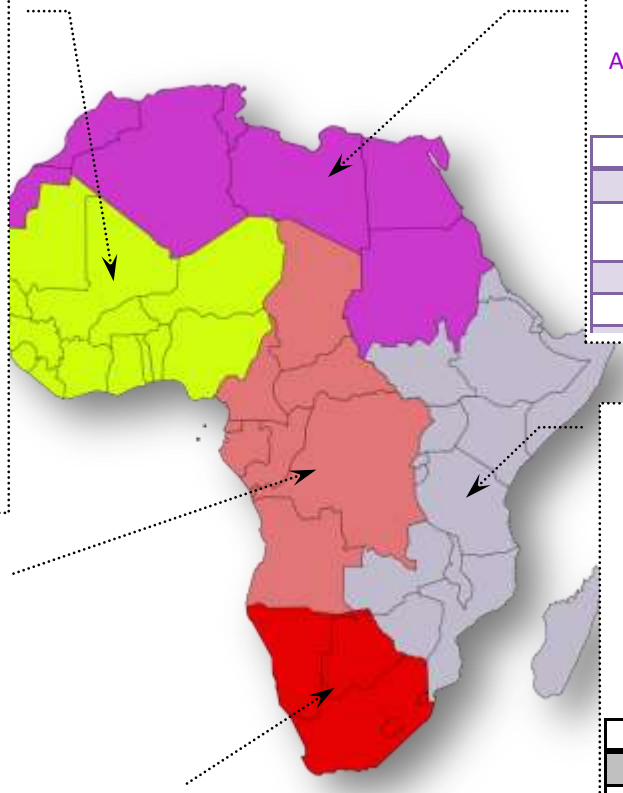
India has been the sole Asian member of the African Union's Capacity Building Foundation. Therefore, migration has been a big part of the Indian-African relationship. The Indian diaspora in Africa is growing and currently at more than 2.5 million and is spread across 46 countries. On the other hand, African students have been moving to India in large numbers for higher education. There are nearly 25,000 African students currently residing in India.

Africa's region-wise Macroeconomic Snapshot[2]

Western Africa

Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, and Togo

Population	353.41 mn
Land Area	6.147 mn km^2
Population Density	57.49 (pop/km^2)
GDP (PPP)	USD 1499.99 bn
GDP per capita	USD 4244.35
Growth	4.5 %



Northern Africa

Algeria, Egypt, Libya, Morocco, Sudan, Tunisia

Population	223.319 mn
Land Area	7.632 mn km^2
Population Density	29.25 (pop/km^2)
GDP (PPP)	USD 2228.642bn
GDP per capita	USD 9979.63

Central Africa

Angola, Cameroon, Central African Republic, Chad, Congo, DR Congo, Equatorial Guinea, Gabon.

Population	151.8 mn
Land Area	6.6 mn km^2
Population Density	22.95 (pop/km^2)
GDP (PPP)	USD 444.98 bn
GDP per capita	USD 2931.89
Growth	4.5 %

Eastern Africa

Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Rwanda, Seychelles, Somalia, South Sudan, Tanzania, Uganda, Zambia, Zimbabwe.

Population	393.37 mn
Land Area	7.01 mn km^2
Population Density	56.17 (pop/km^2)
GDP (PPP)	USD 792.688 bn
GDP per capita	USD 2015.08
Growth	5.3 %

Southern Africa

Botswana, Lesotho, Namibia, South Africa, Swaziland.

Population	62.634 mn
Land Area	2.673 km^2
Population Density	23.43 (pop/km^2)
GDP (PPP)	USD 802.655 bn
GDP per capita	USD 12815.06
Growth	3.6 %

[2] As per United Nations geo-scheme for Africa; PHD Research Bureau;
Data compiled from www.africaneconomicoutlook.org

2.2 Socio-Development Status

Table 2.1: Socio-Development Snapshot of Indian and African Economy's

Socio-Development Status						
Indicator	Unit	Year	India	Africa		
				Maximum	Minimum	Aggregate/ Average
Population	thousands	2015	1311050.53	Nigeria (182202)	Seychelles (96)	1184500.61
Population density	pop./KM^2	2015	440.958	Mauritius (624)	Namibia (3)	39.40
Labour force	thousand	2014	496960.16	Nigeria (55784.248)	Sao Tome and Principe (65.384)	–
Life expectancy at birth	years	2014	68.01	Algeria (74.81)	Swaziland (48.93)	61.2

Source: PHD Research Bureau; Compiled from World Bank database and African Economic Outlook

Based on the socio-development segment of the illustrated table above, India's population stood at 1.31 billion whereas aggregate population of Africa stood at 1.18 billion. Nigeria accounted for the largest human base in Africa at 182.2 million while Seychelles accounted for the lowest population at 96 thousand. On the life expectancy aspect, Africa's average life expectancy at birth in 2014 was 61.2 years whereas India's was slightly higher than Africa's at 68.01 years. Within Africa, Algeria recorded the highest life expectancy figures at 74.81 years while Swaziland recorded the lowest at 48.93 years.

According to UN DESA, India is expected to surpass China's population by 2022; Africa is expected to account for half of the world's population by 2050.

India's population density figures stood at an astounding 440.958 people/km^2, compared to Africa's average population density of 39.40 people/km^2. On the flip side, working population in India stood at 496.96 million in 2014. In Africa, largest labour force numbers were registered in Nigeria at 55.784 million whereas the lowest numbers registered for Sao Tome & Principe at 65384 in 2014.

2.3 Macroeconomic Indicators

India ranks 3rd largest economy based on GDP at PPP levels in 2015, following USA and China. In 2015, its GDP stood at USD 7.983 trillion, with annual real growth figures of 7.57%. Pan-Africa GDP figures based on PPP terms stood at USD 5.769 trillion, wherein Nigeria holds the ranking of the biggest economy in Africa. GDP at PPP terms of Nigeria is recorded at USD 1.105 trillion in 2015, whereas the smallest economy of Africa based on GDP at PPP terms is Sao Tome and Principe at USD 664 million during the same period.

Table 2.2: Macroeconomic Indicators of Indian and African Economy's

Macroeconomic Indicators						
Indicator	Unit	Year	India	Africa		
				Maximum	Minimum	Aggregate
GDP based on PPP	USD million	2015	7982527.57	Nigeria (1105343)	Sao Tome and Principe (664)	5768932.36
GDP per Capita	PPP, USD	2015	6088.65	Equatorial Guinea (30701)	Central African Republic (623)	4870.35
Annual real GDP growth	%	2015	7.57	Ethiopia (10.5%)	Central African Republic (-1.4%)	4.6
Gross capital formation: Public	% of GDP	2014	34.083	Djibouti (30%)	Central African Republic (2.1%)	–
Gross capital formation: Private	% of GDP	2014		Congo (42.1%)	Eritrea (2%)	–
Inflation GDP deflator	%	2015	0.995%	South Sudan (41.1%)	Zimbabwe (-2%)	7.3
Agriculture	% of GDP	2015	17.39%	Sierra Leone (59.24%)	South Africa (2.34%)	–
Industry	% of GDP	2015	30.02%	Congo (54.67%)	Sierra Leone (7.57%)	–
Services	% of GDP	2015	52.59%	Mauritius (74.41)	Sierra Leone (33.19%)	–
Merchandise trade	% of GDP	2015	31.78%	Congo (144.93%)	Sudan (13.76%)	–
Trade in services	% of GDP	2015	14.38%	Seychelles (93.63%)	Sudan (4.21%)	–
Foreign direct investment, net inflows	% of GDP	2015	2.13%	Liberia (35.12%)	South Sudan (-3.07%)	–
Foreign direct investment, net outflows	% of GDP	2015	0.37%	Togo (4.96%)	Seychelles (-6.06%)	–
External Debt	% of GNI	2014	5.28%	Cabo Verde (67.71%)	Algeria (0.68%)	–
Exchange rate	LCU/USD	2015	64.152	Sao Tome and Principe (22090.6)	Libya (1.4)	–

Source: PHD Research Bureau; Compiled from World Bank database and African Economic Outlook

At ground level GDP per capita, based on PPP terms, of India stood at USD 6088.65 in 2015. Pan-Africa recorded GDP per capita at USD 4870.35 during the same period. Within Africa, Equatorial Guinea accounted for the biggest GDP per capita figures at USD 30701 whereas Central African Republic registered the smallest GDP per capita figures at USD 623. Africa, as a whole, is growing at an annual real growth rate of 4.6%.

Indian composition of GDP is primarily driven by Services segment, followed by Industry and Agriculture with share figures of 52.59%, 30.02% and 17.39%, respectively in 2015. In Africa, highly dependent agrarian economy is Sierra Leone's with share of 59.24% in its GDP whereas South Africa is the least agrarian dependent economy with share of 2.34% in its GDP. The economy in Africa which is highly dependent on industrial income turned out to be Congo with share of 54.67% in its GDP whereas Sierra Leone is the least dependent with

Consumer spending in India is expected to three-fold to USD 3.6 trillion by 2020. In Africa, the figure is expected to cross USD 1 trillion, viz. double the present value.

share of 7.57% in its GDP. On the services front, Mauritius holds the biggest share of services income in its GDP at staggering 74.41% while Sierra Leone holds the lowest share at 33.19% in its GDP[3].

Moving forward at global integration level, India's merchandize trade and services trade as a percentage of GDP stood at 31.78% and 14.38% in 2015, respectively. On the investment platform, India's net FDI inflows were at 2.13% of the GDP whereas net FDI outflows recorded at 0.37% of the GDP in 2015. In addition, India owes 5.28% of GNI in terms of present value of external debt in 2014. Indian rupee vis-à-vis US dollar stood at an average INR 64.152/USD in 2015. In Africa, huge variation can be discovered in terms of various indicators determining global integration. For instance, Congo holds the highest merchandize share at 144.93% while Sudan holds the lowest share at 13.76%, as a percentage of GDP. In services trade segment, Seychelles holds the highest share at 93.63% while Sudan holds the lowest share at 4.21%, as a percentage of GDP. Cabo Verde owes the biggest share of its GNI in form of external debt at 67.71% while Algeria owes the lowest share at 0.68% in 2014. Moving forward to exchange rate, Sao Tome and Principe Dobra vis-à-vis USD registered the largest exchange figure at an average 22090.6 while Libyan Dinar vis-à-vis USD recorded the lowest exchange figure at 1.3 in 2015.

2.4 Infrastructure Indicators

A quick infrastructure outlook indicated that Cote d'Ivoire has been able to enhance its quality of port infrastructure as per international standards; however Chad's quality of infrastructure has deteriorated continuously. In addition, Egypt, Tanzania, Mauritania, and Ethiopia were able to increase the port infrastructure quality since 2014. Compared to 2014, India also increased in the quality of port infrastructure index indicating relatively better prospects for international trade primarily on the back of continuous investments.

Table 2.3: Infrastructure indicators of Indian and African Economy's

Infrastructure Indicators (2014)						
Indicator	Unit	Year	India	Africa		
				Maximum	Minimum	Aggregate
Quality of port infrastructure #	Rank	2015	4.2	Cote d'Ivoire (5.24)	Chad (1.37)	–
Burden of customs procedure*	Rank	2015	4.26	Rwanda (5.26)	Chad (2.38)	–
Internet users	% of Population	2015	26%	Seychelles (58.12)	Eritrea (1.08)	–
Area	thousand km^2	2015	3287	Algeria (2382)	Seychelles (0.46)	30066.43

Source: PHD Research Bureau; Compiled from World Bank database and African Economic Outlook
#1=extremely underdeveloped to 7=well developed and efficient by international standards; *1=extremely inefficient to 7=extremely efficient;

Based on the burden of customs procedure, Rwanda exhibited ameliorating prospects whereas Chad remained a low performer in Africa. Notwithstanding the abysmally low performance at customs

[3] GDP composition records of Angola, Djibouti, Equatorial Guinea, Eritrea, Liberia, Libya, Somalia and South Sudan was not available.

procedure, Chad registered growth in index compared to 2014. Other top performers in Africa are Cote d'Ivoire, Gambia, Mauritius, Namibia, and Uganda. India, on the other hand, witnessed a sharp decline in the burden of customs procedure in 2015 compared to 2014.

Another important aspect to determine infrastructure indicators is the percentage of population using internet. In Africa, Seychelles has nearly 59% of its population using internet whereas Eritrea posted the lowest figures of 1.08%. Interestingly, compared to 2014, all the African countries registered substantial growth in number of internet users. The number of internet users as a % of population in India grew from 12.58% in 2012 to a remarkable 26% in 2015.

One-fifth of Earth's total landmass is Africa, viz. larger than India, China, Mexico, and USA combined.

In regard to the land area, Africa as a whole encompasses nearly 30066.43 thousand km^2 of area, wherein Algeria holds the largest portion of 2382 thousand km^2 and Seychelles the lowest portion of 0.46 thousand km^2. The sub-continent India holds 3287 thousand km2 of land area under its territory. All the infrastructural developments in India and Africa have been resulted from a continuous investment in various aspects of infrastructure, whether it is internet penetration, quality of ports, roads, railways and so on.

2.5 Ease of Doing Business Indicators

India registered a jump on the ease of doing business platform from 131th position in 2016 to 130th position in 2017, as per World Bank's Ease of Doing Business Report 2017. India witnessed the biggest jump in the distance to frontier score since 2004. Amongst other greatest achievements in Ease of doing business in India, the remarkable feat was achieved when India was able to reduce to number of days to start a business from a staggering 127 in 2004 to 29 in 2015. In the recent past, India scrapped-off the minimum capital requirement and streamlined the process for starting a business by eliminating the certificate requisition to commence business operations, in Delhi and Mumbai.

The Government of India is diligently working towards enhancing Ease of Doing Business climate of India through continuous policy interventions and reforms. The efforts of the Government hold the potential to put India in the top 50 ranking of Ease of Doing Business in the coming years.

Table 2.4: Ease of Doing Business indicators of Indian and African Economy's

Ease of Doing Business Indicators						
Indicator	Unit	Year	India	Africa		
				Minimum	Maximum	Average
Ease of doing business Rank^	Rank	2017	130	Mauritius (49)	Somalia (190)	–
Starting a business	Rank	2017	155	Burundi (18)	Central African Republic (190)	–
Dealing with construction permits	Rank	2017	185	Morocco (18)	Eritrea/Libya/Somalia (187)	–
Getting electricity	Rank	2017	26	Tunisia (40)	Somalia/South Sudan (188)	–
Registering property	Rank	2017	138	Rwanda (4)	Libya (187)	–

Getting credit	Rank	2017	44	Rwanda (2)	Eritrea/Libya/Somalia/ Sao Tome and Principe (185)	–
Protecting minority investors	Rank	2017	13	South Africa (22)	Somalia (190)	–
Paying taxes	Rank	2017	172	Seychelles (32)	Somalia (190)	–
Enforcing contracts	Rank	2017	172	Mauritius (34)	Angola (186)	–
Trading across border	Rank	2017	143	Swaziland (31)	Eritrea (189)	–
Resolving insolvency	Rank	2017	136	Mauritius (39)	Angola/Cabo Verde/Comoros/Somalia Democratic Republic of Congo/ Equatorial Guinea/ Eritrea/ Guinea-Bissau/Libya/Mauritania/ South Sudan (169)	–

Source: PHD Research Bureau; Compiled from World Bank Ease of Doing Business Report 2017

^1=easiest, 190=most difficult

In pan-Africa, Mauritius stood at the first position at 49nd whereas Somalia stood at the last in the 190 countries ranking index. **Mauritius** has been able to reduce the time required for dealing with construction permits by hiring a relatively more efficient subcontractor to establish sewerage connections. **Algeria** has significantly improved on the starting a business front by removing the requirement of obtaining managers' criminal records and made conducive environment by eliminating the legal requirement to provide a certified copy of property title when applying for building permit. **Angola** significantly reduced the fees to register a company and corporate income tax rate. **Benin** also reduced its registration fees and reduced the number of signatories required on building permits. **Botswana** has upgraded its electricity distribution mechanism by attaching delivery timelines for new connections. **Burkina Faso** reduced the minimum capital requirement condition. **Cabo Verde** lowered the property registration tax, thus making property transfer less costly whereas **Chad** reduced the property transfer tax. **Comoros** reduced the minimum capital requirement condition and established a new credit registry for improved credit information access.

Democratic Republic of Congo simplified the registration process and reduced minimum capital requirement, halved the cost of obtaining building permit, however increased the port handling time and cost for exporting and importing. **Republic of Congo** lowered the property transfer tax rate to boost property registration. **Cote d'Ivoire** implemented single window platform for documentary compliance in case of imports, introduced new conducive provisions on voluntary mediation. **Egypt**, in a progressive move, barred subsidiaries from acquiring shares issued by their parent company, protecting minority investors. **Gabon** reduced the paid-in minimum capital requirement condition and property registration tax. **The Gambia** introduced VAT regime and lowered the corporate tax rate. **Ghana** developed electronic channels for submission and collection mechanism for documentary compliance in case of imports. **Guinea** reduced the minimum capital requirement. **Guinea-Bissau** lowered the property registration tax. **Kenya**, on one hand reduced the redundant time for assessment and payment of stamp duty and on the other hand, increased the cost of both water and sewerage connections. In addition, Kenya improved upon the electronic document management system for land registry and expanded borrower coverage to seek credit.

Lesotho established its first credit bureau. **Liberia** adopted a modern, unified and notice based collateral registry for access to credit; implementation of minimum corporate tax has been assumed to negatively impact ease of doing business. **Madagascar** lowered the property transfer tax; broaden the range of assets for collateral; upgraded port infrastructure; however requirement of bank certified check to pay tax

authorities is an exacerbating step for ease of doing business. **Mali** introduced regulations governing licensing and functioning of credit bureaus in the member states of West African Economic and Monetary Union (UEMOA) and introduced electronic data interchange system for both exports and imports. **Mauritania** has provided banks and financial institutions with online access to credit registry data. Also, the nation reduced the frequency of both tax filing and payment of social security contributions and upgraded its existing trading system to ASYCUDA World electronic data interchange system. **Mauritius** has further improved on its property registration process by digitizing the land records. **Morocco** has enhanced on all the parameters; it introduced online platform for registering a company's name and reduced the fee as well, developed a single window system for trading, invigorated the minority investor protections by clarifying ownership and control structures. **Mozambique** enacted a law for establishment of new credit bureau however, increased registration and notary fees for starting a business. **Niger**has eliminated the condition to notarize the company's bylaws and setup a specialized commercial court in Niamey among other business facilitating policies. **Nigeria** has improved the online government portals, for both Kano and Lagos. Also, Nigeria created a centralized collateral registry to boost credit.

Rwanda streamlined the post-registration process for starting a business, removed mandatory shipment inspection for imported products, and introduced electronic case management system for judges and lawyers to fast track cases; however, initiated a new system of filing and paying monthly social security contributions instead of quarterly and added new cumbersome building permit requirements. **Sao Tome and Principe** adopted a new mechanism of minimum wage for private sector. **Senegal** increased transparency in land registry process, established a new credit bureau, and reduced maximum cap for corporate income tax. **Sierra Leone** reduced the registration charges for starting a business. **South Africa** embarked upon a new online platform to search for a company name but raised property transfer tax, vehicle tax and property tax. **Sudan** increased the company seal's cost and diminished minority investor protections by making it difficult to file a case against directors in case of prejudicial related-party transactions. **Tanzania** enhanced the coverage of credit bureau however, increased frequency of filing of skills development levy and introduced workers' compensation tariff by employers. **Togo** introduced rules governing licensing and functioning of credit bureaus, initiated a new conciliation procedure for companies in financial difficulties, and implemented new single window system for trading. **Tunisia** instigated upon distribution mechanism of historical credit information from a telecommunications company. **Uganda** scrapped-off signature requirement on compliance declarations from commissioner of oaths. **Zambia** increased the costs attached with submission of documents with the environmental agency and also eliminated fixed term contracts for permanent tasks. **Zimbabwe** eased rules for the building plan approval process, launched new website for all the nitty-gritty related to documents and fees for registering a property, and reduced the severance payments however, introduced a mandatory pre-shipment inspection for imported products.

2.6 Basic Trade Indicators

To provide a broad and holistic picture of how countries perform as far as efficiency and effectiveness is concerned for exports and imports, certain trade indicators were evaluated by World Bank in its Ease of doing business report 2017.

Table 2.5: Basic Trade indicators of Indian and African Economy's

Basic Trade Indicators							
Indicator		Unit	Year	INDIA	AFRICA		
					Maximum	Minimum	Average[&]
Time to Export	Documentary Compliance	hours	2017	38.4	DR Congo (698)	Tunisia/Lesotho (3)	28.46
	Border compliance	hours	2017	106.1	DR Congo (515)	Swaziland (3)	38.31
	Domestic transport	hours	2016	27.80	Congo (120)	Comoros/Lesotho/Guinea-Bissau/Gambia (1)	3.68
Cost to export	Documentary Compliance	USD	2017	91.9	DR Congo (2500)	Togo (25)	222.02
	Border compliance	USD	2017	413.1	Congo (2223)	Burundi (106)	573.88
	Domestic transport	USD	2016	435.50	Central African Republic (2106)	Lesotho (8)	458.02
Time to Import	Documentary Compliance	hours	2017	61.3	South Sudan (360)	Botswana/Lesotho/Namibia (3)	25.84
	Border compliance	hours	2017	283.3	DR Congo (588)	Botswana (4)	40.52
	Domestic transport	hours	2016	55.50	Congo (136)	Comoros/Lesotho/Guinea-Bissau/Gambia (1)	3.63
Cost to Import	Documentary Compliance	USD	2017	134.8	Burundi (1025)	Libya (60)	318.23
	Border compliance	USD	2017	574.00	DR Congo (3039)	Botswana (98)	668.96
	Domestic transport	USD	2016	535.50	Central African Republic (2057)	Lesotho (8)	514.83

Source: PHD Research Bureau; Compiled from World Bank's Ease of Doing Business Report 2017

& Average of Hours based on Harmonic Mean and Average of cost based on Simple Average of all African Countries

Apparently, to export from India, it takes 38.4 hours for documentary compliance, 106.1 hours for border compliance, and 28 hours for domestic transport. If these numbers are translated into cost, documentary cost translated to USD 91.9, border compliance to USD 413.10, and domestic transport to USD 435.50. In case of Africa, on an average it takes 28.46 hours for documentary compliance, 38.31 hours for border compliance, and 3.68 hours for domestic transport. Translating the period into cost resulted in USD 222.02 for documentary compliance, USD 573.88 for border compliance, and USD 458.02 for domestic transport.

Further bifurcation of Africa indicates that Tunisia and Lesotho were top performers in case of documentary compliance, Swaziland in case of border compliance, and Comoros, Lesotho, Guinea-Bissau/Gambia in case of domestic transport. However, Congo and Democratic Republic of Congo exhibited below par performance in all the three aforementioned indicators to come last in Africa, in case of exports. On the cost front, Togo, Burundi and Lesotho are the most efficient countries for documentary compliance, border compliance and domestic transport, respectively, whereas Democratic Republic of Congo, Congo and Central African Republic are the worst performers for the same.

Flip side of exports, viz. imports, emanated relatively higher figures for India, both in terms of time and cost. It takes nearly 61.3 hours for documentary compliance, 283.3 hours for border compliance, and 55.5 hours for domestic transport to import in India. On the cost front, around USD 134.8 has to be spent for documentary compliance, USD 574 for border compliance and 535.5 for domestic transport. Thus, ostensibly, it is easier to export than import in India.

Conversely, African, on an average, takes 25.84 hours for documentary compliance, 40.52 hours for border compliance, and 3.63 hours for domestic transport. Further elucidating in case of documentary compliance, Botswana, Lesotho and Namibia registered the most effective figures of 3 hours each and South Sudan the worst figures of 360 hours; for border compliance Botswana came up with best figures of 4 hours whereas Democratic Republic of Congo registered worst figures of 588 hours; for domestic transport Comoros, Lesotho, Guinea-Bissau and Gambia registered best figures of 1 hours each while Congo came last in Africa with 136 hours. When the figures were translated into cost, Libya, Botswana and Lesotho performed tremendously well for documentary compliance, border compliance and domestic transport front, respectively. On the other hand, Burundi, Democratic Republic of Congo and Central African Republic were the most inefficient countries in Africa as far as the aforementioned variables are concerned.

2.6 Comparison of Labour Laws – A Case study of Guinea-Conakry and India

S. No.	Parameters	Case in India	Case in Guinea-Conakry
	Regulation of labour laws	The labour legislation that is adapted to the economic and social challenges of the modern world of work fulfils three crucial roles: a legal system to facilitate productive individual and collective employment relationship; an important vehicle for achieving harmonious industrial relation based on work place democracy; a clear and constant guarantee of fundamental principles and rights at work.	Guinea's Labor Code protects the rights of employees and is enforced by the Ministry of Social Action, Women, and Child Promotion. The Labor Code sets forth guidelines in various sectors, the most stringent being the mining sector. The law provides for the right of workers to organize and join independent unions, engage in strikes, and bargain collectively, the law also places restrictions on the free exercise of these rights.
	Labour laws	a) Apprentices Act, 1961; b) Employees State Insurance Act, 1948; c) Employees Provident Fund and Misc. Provisions Act, 1952; d) Factories Act, 1948; e) Industrial Disputes Act, 1947; f) Payment of Bonus Act, 1965; Payment of Gratuity Act, 1972; g) Workmen's Compensation Act, 1923.	a) Impunity and Accountability for crimes b) Justice for the 2009 Stadium Massacre c) Judiciary and detention conditions d) Women and child's rights e) Legislative and institution framework f) Security force g) Key international actors
	Labour Reforms	Labour market in India is suffering from lack of adequate labour reforms provision. Economic reforms introduced in the country during the 1990s have changed economic scenario of the country. But the country is lagging behind in adopting necessary labour reforms which are rational and important under the present context.	As a member of the International Labour Organization (ILO), Guinea has ratified various conventions on human rights, workers' rights, vulnerable groups and especially the rights of children. The government has drafted a national employment focused on providing jobs for vulnerable groups and promoting vocational training that is better suited to the labour market. Through this policy, it is responding to the production sector's demand for a better-trained labour force

			and is trying to keep a balance between the need for social protection and job creation.
	Unemployment in labour market	Labour market is facing a serious problem of unemployment. A huge number of work forces remain partially or wholly unemployed throughout the year or some part of the season, It has led to the problems like disguised unemployment, seasonal unemployment, general unemployment and educated unemployment.	High level of unemployment and lack of enforcement mechanism. Guinea has a young population with a high unemployment rate and lacks employees with specialized skills. The country has a poor educational system and lacks professionals in all sectors of the economy. Guinea lacks the specialized skills needed for large-scale projects.
	Functioning of labor Union	Labour market in India is facing the problem of militant unionism. In some productive sectors and that too in some particular states, trade unions are not adhering to healthy practices. This has led to militancy in the union structure and its activities, which is detrimental for the greater interest of the nation.	The 2014 labor code requires unions to obtain support of 20 percent of the workers in a company, region, or trade that the union claims to represent. The new code mandates that unions provide 10 days' notice to the labor ministry before striking, but the code does allow work slowdowns. Strikes are only permitted for "professional claims."
	Minimum wage	The minimum wages Act prescribes minimum wages in all enterprises and in some cases those working at home per the schedule of the Act. Central and State government can and do revise minimum wages at their discretion. The minimum wage is further classified by nature of work, location and numerous other factors at the discretion of the government. State governments have their own minimum wage schedule.	There is no minimum wage in Guinea. The ILO Committee of Experts has identified this as a matter of deep concern regarding compliance with international standards. Exact data on wages is absent due to the lack of capacity of the Labor Inspectorate to gather and publish relevant data. However, according to the Labor Inspectorate, wages are low and do not reflect workers needs in the light of the increases in the food and energy prices.
	Migrant labor	India has two broad of migrant labourers. One that migrates to temporarily work overseas, and another that migrates domestically on seasonal and work available basics.	The level of employment of international migrant workers in the mining sector in Guinea is not known, but interviewees generally agreed that relatively low daily wages offered for unskilled labor in Guinea's mining sector makes migration from neighboring countries unlikely.
	Major challenge in labour market	Unemployment is the greatest economic challenge facing India. Virtually all major economic policy issues derive from this central challenge.	Increasing energy supply remains a big challenge. The programme for social cohesion and youth employment has enabled Guinea to collect employment statistics and design policies for job creation and setting up businesses. Six microfinance institutions are supporting 500 enterprises set up by people aged under 30.
	Major issues faced	• Surplus labour force • Unskilled labour	• Poor working condition, • Breaches of freedom of association,

	by labour	• Lack of Absorption of skilled labour • Imperfection • Work culture • Militant Unionism • Unemployment • Lack of labour reforms	• Lack of job security and poor terms conditions, • Discrimination against women, migrants and minorities, • Poor enforcement of labour laws

Source: Compiled by PHD Research Bureau; Extracted from an Internship Report by Jean Philippe Loua, A Comparative Analysis of Human Resource Policies in Guinea-Conakry and India

2.7 Conclusion

The macroeconomic picture for both India and Africa seems to be expanding and stabilizing over the past few years. Nevertheless, invigorating headwinds were felt due to weakness in global economy. In terms of GDP numbers, Northern Africa is the biggest region with GDP at PPP of USD 2.228 trillion, followed by Western Africa with GDP at PPP of USD 1.5 trillion in 2015. Overall, growth rate has been moderate by rising at 4.6% for Africa. Similarly, India the fastest growing nation in the world at 7.6% has been moving ahead in a calibrated and stabilized manner.

The future prospects in terms of development, expansion and integration with the world seems to be ameliorating and sustainable, for both India and Africa. All the indicators for Socio-Development, macro economy, and infrastructure are accentuating gradually in the positive trajectory. However, in case of ease of doing business indicators, the process is relatively slow compared to other indicators. However, business enabling and conducive policies and regulations are continuously being pursued by the respective governments of India and Africa. With rising population, both nations are home to large number of working population. Both the nations are moving ahead to reach a favourable demographic dividend scenario. The rising demand created by growing per capita income will certainly lead the sluggish growth of the world to an enthusiastic pace.

Also, the performance on various infrastructure indicators suggest an improvement both in India and various African countries, primarily on the back of continuous capital expenditure conceded by respective governments. Allocation of funds from the budget, especially in the realm of developing existing roads, railways, airports, ports, warehouses, electricity, and other essential infrastructural elements, and in the creation of new infrastructural capabilities as well. The present investment will surely have a lag effect, however in the long run it will be transformed into higher capacities, competitiveness and well-being. Thus, it will further inculcate the economy.

India and Africa, on the ease of doing business front, are gaining ground slowly and steadily. This can be illustrated from their positive performance shift on the various indicators under the auspices of ease of doing business. Although certain vital elements still need significant improvement, the prospects seem to be expanding in the medium to long run. Some of the African countries displayed signs of revival, and some remained lethargic. However, due to continuous and significant implementation of reforms by the governments of all the countries in Africa, the positive shift is gradual but visible. As far as India is concerned, jump of one rank to 130th position has been made possible primarily on the back of engagement of government in various schemes and campaigns such as Make in India, Digital India, liberalization of FDI, prospect of GST in 2017, and growth in competitiveness and investment in infrastructure capabilities.

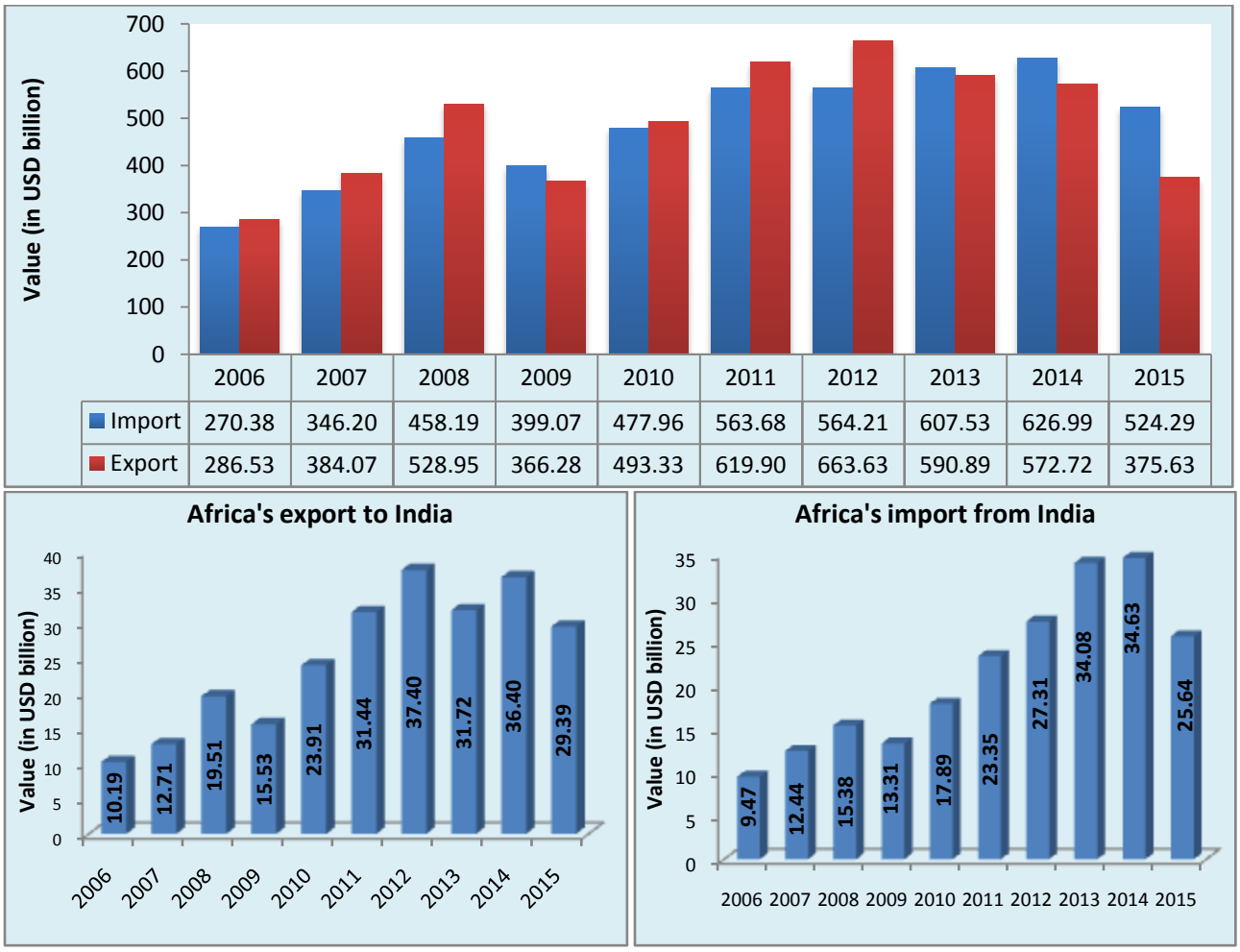
Analysis of Africa's External Sector with Special Reference to India

3 ANALYSIS OF AFRICA'S EXTERNAL SECTOR WITH SPECIAL REFERENCE TO INDIA

3.1 Introduction

Africa is a gigantic collation of nations, which has always given importance on trade relationship with other countries. The country has always played an active role in both multilateral as well as preferential trade liberalization. Today, it has an extensive network of variety of trade agreements with several countries. Regarding trade basket, its focus always has been on mineral and nuclear-related products. Apart from this, auto products, electrical, electronic equipment and pharmaceutical products have always occupied a significant position in its export basket. This chapter, analyses the export structure of Africa in detail. This study profoundly emphasizes on huge potential held by African Market. The major contributors to such potential are the inordinate and untapped consumer base and unprecedented GDP growth for the past 15 years.

Figure 3.1: Africa's Trade with World at a Glance

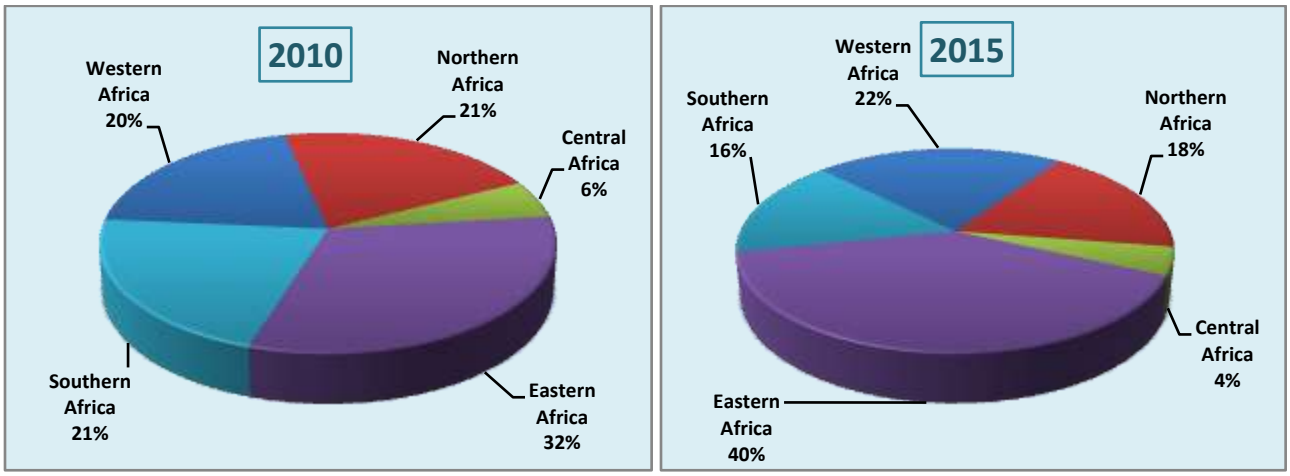


Source: PHD Research Bureau; Compiled from Trademap Database

As per Figure 3.1, the overall African imports jumped nearly two folds to value at USD 524.29 billion in a decade during 2006-15 on the back of rising per capita income and dramatic shift in the basket of imported goods. During 2006-15, imports from Africa grew at an astounding CAGR of 7.64% when global import demand grew only by 3.40%. Conversely, exports from Africa grew at a snail's pace between the same periods, witnessing a CAGR of 3.05% compared to 3.54% of the global export growth.

Africa's share of the global imports hovered between 2.2% and 3.2% whereas the share in global exports hovered between 2.3% and 3.62%, during 2006-15. Exports from Africa are following a negative trend since the hiatus of growth during 2009-12, following which imports fell to USD 375.63 billion in 2015 from 663.63 billion in 2012. Despite the sticky import growth, imports also managed to register a fall in 2015.

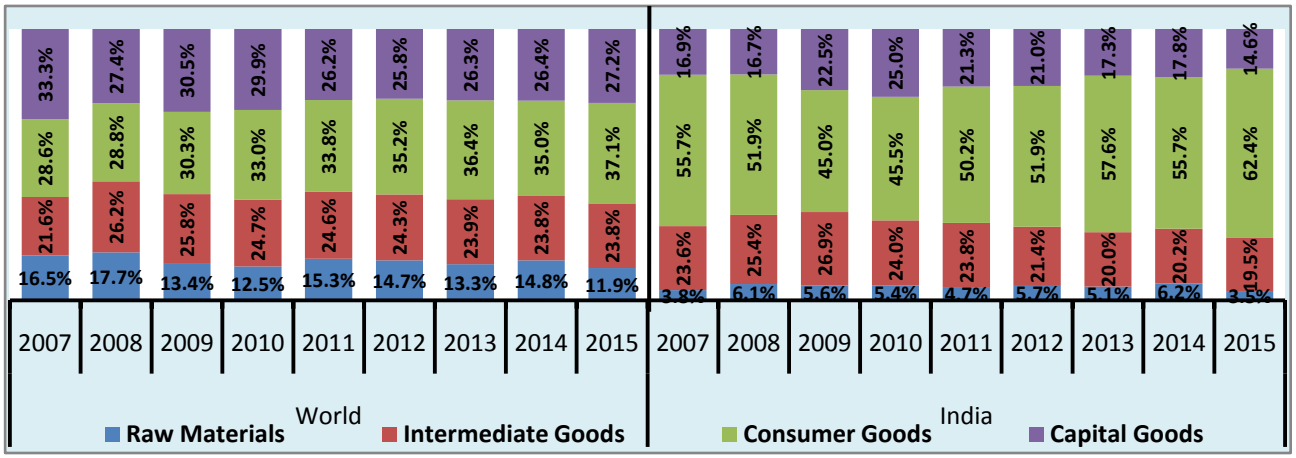
Figure 3.2: India's export to Africa (Region-wise share)



Source: PHD Research Bureau; Compiled from Trademap Database

It is quite evident from the chart above that Indian exports to pan-Africa witnessed a dramatic shift in favour of Eastern Africa from a share of 32% in 2010 to 40% in 2015. This positive shift is corresponded in decline in export share to other left regions in Africa. Majority of the exports concentrated in Eastern Africa, especially in Kenya (USD 3.183 billion), Tanzania (USD 1.671 billion), and Ethiopia (USD 763 million). Second best region in Africa turned out to be Western Africa with a share of 22% in 2015, registering a jump of 2% since 2010.

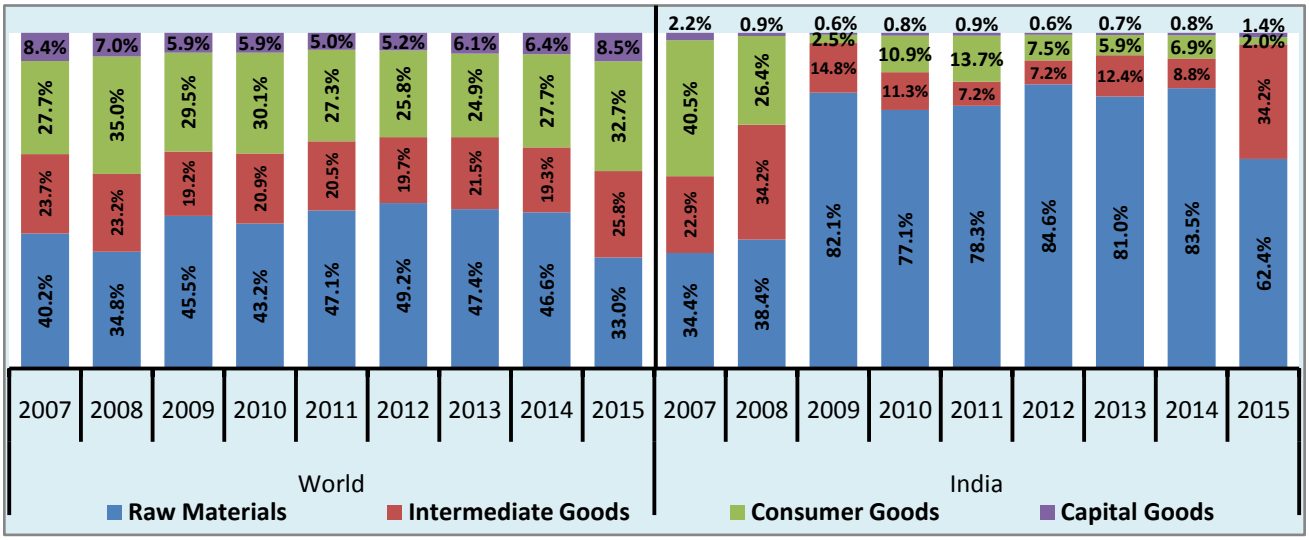
Figure 3.3: Imports based on state of processing in Africa



Source: PHD Research Bureau; Compiled from WITS

It can be illustrated from Figure 3.4 that more than one-third of the imports in Africa are Consumer goods, followed by capital goods (27.2%), intermediate goods (23.8%), and raw materials (11.9%) in 2015. In case of imports from India, Africa has revealed its demand in favour of consumer goods (63%), followed by Intermediate goods (19.5%), capital goods (14.6%), and raw materials (3.5%). Notably, the share of consumer goods in imports from India rose sharply from 50.2% in 2011 to 62.4% in 2015.

Figure 3.4: Exports based on state of processing in Africa



Source: PHD Research Bureau; Compiled from WITS Database

On the export front, based on state of processing of products, Africa's overall exports comprise of majority of raw materials (33%), then consumer goods (32.7%), intermediate goods (25.8%), and capital goods (8.5%) in 2015. Interestingly, there has been a consistent shift in export pattern of Africa from raw materials to consumer goods and intermediate goods. During 2012-15, share of raw materials squeezed from 49.2% to 33%, in favour of consumer goods and intermediate goods, whose shares rose from 25.8% and 21.5% to 32.7% and 25.8%, respectively.

This shift in export pattern can be translated to development in the domestic industry and economy of Africa, which erstwhile heavily relied on raw materials is presently importing more intermediate and consumer goods. However, in India's scenario, majority of the imports from Africa are in the category of raw materials (62.4%), followed by intermediate goods (34.2%), consumer goods (2%), and capital goods (1.4%). Notably, there has been a dramatic shift in the share of raw materials in overall basket of imports in India from Africa. Share of raw materials fell from an enormous 83.5% in 2014 to 62.4% in 2015, offsetting to an increase in the share of intermediate goods from 8.8% to 34.2%, during the same period.

3.2 Country-specific scenario in pan-Africa

Figure 3.5:
Imports in Africa from different countries

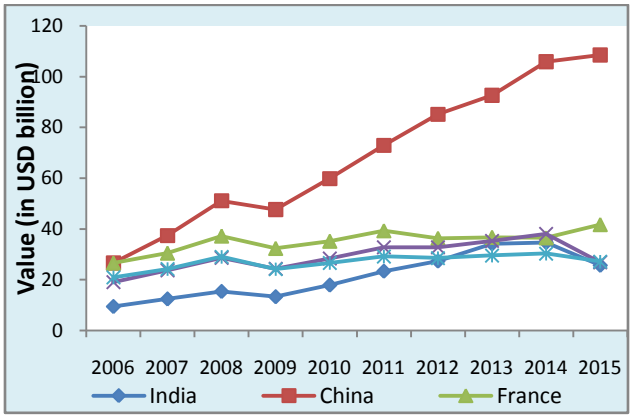
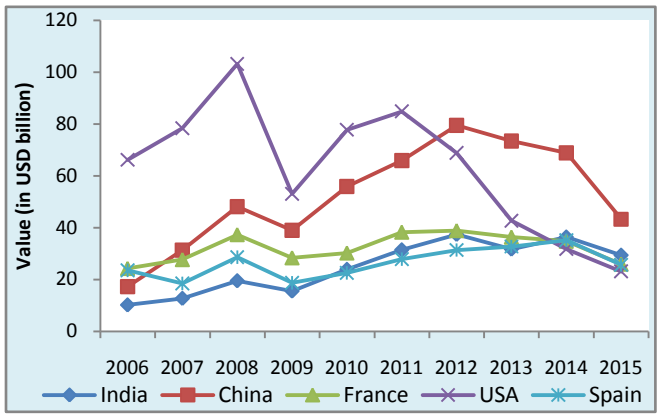


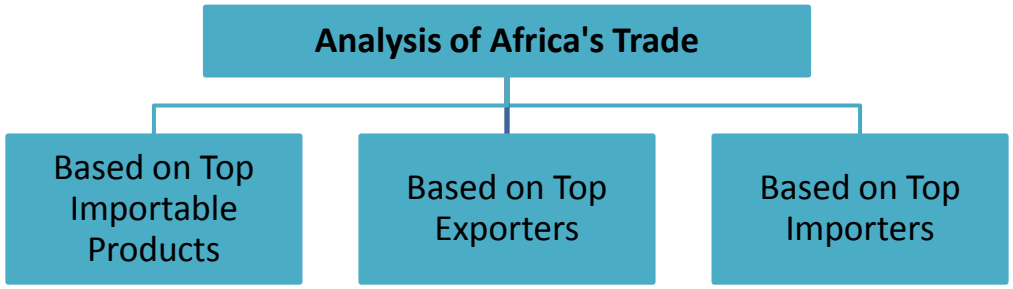
Figure 3.6:
Exports from Africa to different markets



Source: PHD Research Bureau; Compiled from Trademap

Group of five nations (India, China, France, USA, and Germany) held 42% share in the overall imports in Africa. China was able to more than double its presence in Africa, in regard to products during 2006-15. India has also expanded its position in Africa since 2006. It can be elaborated from Figure 3.5 that India's exports in African market have witnessed an increasing trend since 2006. However, the positive trend was hindered in 2015 wherein the exports fell from USD 34.630 billion in 2014 to USD 25.640 in 2015 registering a plunge of steep 25.96%. Although all the major exporters such as USA and Germany to African markets experienced a decline in demand for their products, China and France were able to counter the effect. China was able to maintain its consistent performance in Africa with growth of 2.52% between 2014 and 2015 and France was able to register a commendable performance of 14.25% growth rate during the same period.

Historically, China and USA were the haven countries for African products however, since 2011 there has been a significant drop in exports from Africa to the aforementioned nations, especially USA. Within a group of five nations illustrated above, share in overall African exports stood at 40% in 2015. China imports nearly 12% of the overall African imports, followed by India (7.84%), France (6.92%), Spain (6.85%), and USA (6.16%). Interestingly, USA's share fell from 20% in 2006. India's import from pan-Africa has followed a cyclical trend since 2011. India has been able to enhance its imports from Africa by three-fold since 2006.



3.3 Based on Top imported products by Africa

The following list delineates top 25 products imported by Africa from the world. These top products (at HS-02 level) shared 77.09% of the total imports by Africa. Among top products, Mineral fuels and oils; nuclear reactors, boilers, etc; and electrical machinery and equipment held the largest share of 12.22%, 11.47% and 8.98%, respectively.

Table 3.1: Top 25 Products (HS-02) imported by Africa

HS-02	Product Description	2015		Top Importers	Top Exporters
		Value (in USD billion)	Share (%)		
27	Mineral fuels, mineral oils and products of their distillation	64.092	12.22%	South Africa, Tanzania, Morocco, Nigeria, Egypt	Saudi Arabia, Netherlands, India, Nigeria, Singapore
84	Nuclear reactors, boilers, machinery and mechanical appliances	60.120	11.47%	South Africa, Egypt, Algeria, Nigeria, Ethiopia	China, USA, Italy, Germany, France
85	Electrical machinery and equipment and parts thereof	47.088	8.98%	South Africa, Egypt, Algeria, Nigeria, Morocco	China, France, Hong Kong, Germany, Italy
87	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	39.092	7.46%	South Africa, Algeria, Egypt, Morocco, Nigeria	China, Japan, Germany, India, France
39	Plastics and articles thereof	20.234	3.86%	Egypt, South Africa, Algeria, Nigeria, Morocco	China, Saudi Arabia, USA, Germany, France
10	Cereals	17.922	3.42%	Algeria, Egypt, Nigeria, Morocco, Tunisia	France, Russia, India, Thailand, USA
73	Articles of iron or steel	15.516	2.96%	Algeria, Egypt, Nigeria, Angola, Ethiopia	China, South Africa, Italy, France, Turkey
30	Pharmaceutical products	15.429	2.94%	Egypt, South Africa, Algeria, Nigeria, Ethiopia	France, India, Belgium, Switzerland, Germany
72	Iron and steel	14.630	2.79%	Algeria, Egypt, Morocco, Ethiopia, South Africa	China, Turkey, Spain, Italy, Russia
99	Commodities not elsewhere specified	11.102	2.12%	South Africa, Liberia, Egypt, Nigeria, Algeria	Germany, Singapore, Japan, Thailand, USA
89	Ships, boats and floating structures	9.888	1.89%	Liberia, Angola, Egypt, Mozambique, Congo	South Korea, France, China, Japan, Philippines
90	Optical, photographic, cinematographic, checking, precision, medical or surgical instruments and apparatus	9.011	1.72%	South Africa, Egypt, Algeria, Nigeria, Morocco	China, USA, Germany, France, UK
88	Aircraft, spacecraft, and parts thereof	8.447	1.61%	Egypt, Algeria, South Africa, Libya, Kenya	France, USA, UK, Spain, Canada
15	Animal or vegetable fats and oils and their cleavage products	8.155	1.56%	Egypt, Ethiopia, Algeria, Morocco, South Africa	Indonesia, Malaysia, Argentina, Russia, USA

94	Furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings	7.337	1.40%	Nigeria, South Africa, Egypt, Algeria, Angola	China, Italy, Turkey, South Africa, France
48	Paper and paperboard; articles of paper pulp, of paper or of paperboard	6.874	1.31%	Egypt, South Africa, Morocco, Nigeria, Algeria	China, South Africa, Spain, France, Germany
38	Miscellaneous chemical products	6.738	1.29%	South Africa, Egypt, Nigeria, Morocco, Algeria	China, France, USA, South Africa, Germany
40	Rubber and articles thereof	6.362	1.21%	South Africa, Egypt, Nigeria, Algeria, Ethiopia	China, Japan, South Africa, Spain, Germany
62	Articles of apparel and clothing accessories, not knitted or crocheted	5.841	1.11%	South Africa, Nigeria, Egypt, Algeria, Kenya	China, Turkey, India, France, South Africa
29	Organic chemicals	5.195	0.99%	Egypt, South Africa, Nigeria, Morocco, Algeria	China, India, Germany, Belgium, France
76	Aluminum and articles thereof	5.171	0.99%	Nigeria, Egypt, South Africa, Algeria, Mozambique	China, Netherlands, Bahrain, France, India
17	Sugars and sugar confectionery	5.163	0.98%	Algeria, Sudan, Nigeria, Egypt, Morocco	Brazil, India, Thailand, Guatemala, South Africa
64	Footwear, gaiters and the like; parts of such articles	4.940	0.94%	South Africa, Egypt, Nigeria, Algeria, Kenya	China, India, Vietnam, South Africa, Italy
49	Printed books, newspapers, pictures and other products of the printing industry	4.931	0.94%	Cameroon, Algeria, Congo, Chad, Gabon	France, UK, China, India, South Africa
61	Articles of apparel and clothing accessories, knitted or crocheted	4.865	0.93%	Egypt, South Africa, Algeria, Kenya, Libya	China, Turkey, South Africa, India, Italy

Source: PHD Research Bureau; Compiled from Trademap

It can be highlighted from the table above that India has been able to create a significant footprint in Africa for its top importable products. In the category of mineral fuels; vehicles; cereals; and pharmaceutical products, viz. the top imported products in Africa, India is among the top 5 export destinations. Notably, there still lies enough elbow-room for India's growth in Africa for top products such as electrical equipments, plastics and products thereof, and iron and steel and articles thereof among others.

3.4 Based on Top export sources to Africa (for top imported products)

Table 3.2: Major export sources in Africa (for top imported products)

Country	Value in 2015 (in USD billion)	Share (% in 2015)	Growth (2014-15)
China	77.033	18.91%	8.22%
France	32.945	8.09%	27.39%
United States of America	22.220	5.45%	-25.52%
Germany	22.210	5.45%	-18.17%
India	**20.510**	**5.03%**	**-19.83%**
Italy	16.962	4.16%	-16.04%

South Africa	16.769	4.12%	-21.98%
Saudi Arabia	16.648	4.09%	-24.52%
Spain	11.340	2.78%	-20.64%
Netherlands	10.652	2.61%	-0.24%
South Korea	10.634	2.61%	-29.82%
Japan	10.210	2.51%	-24.43%
United Kingdom	9.456	2.32%	-23.14%
Turkey	8.626	2.12%	-9.49%
Belgium	8.262	2.03%	-19.23%
Singapore	7.082	1.74%	-24.66%
Russian Federation	6.780	1.66%	-5.35%
Thailand	5.598	1.37%	-25.16%
Brazil	5.244	1.29%	-16.23%
Nigeria	4.759	1.17%	-54.87%
Malaysia	3.965	0.97%	-11.90%

Source: PHD Research Bureau; Compiled from Trademap

It is revealed from the table above that India is amongst the top 5 exporters in African market. However, China stood as the biggest competitor in Africa with nearly four times the export value of India for highly imported products by Africa. Interestingly, the highlights of the table above are the export growth rates of top 25 countries. Except for China and France, all the countries reported their figures in red zone. France became the fastest runner with export growth of astonishing 28%, despite the mundane demand scenario in Africa.

India has been able to maintain the share of 5.03% in overall Africa's imports of top products. Barring China and France, rest of the major exporters to African markets witnessed tremendous fall in exports. In addition, Germany and USA still remains the near competitors to India while exporting to African market.

3.5 Based on Top importers in Africa

Table 3.3: Top Importers in Africa and their top imports

Country	2015				
	Share in World	Share in Africa	CAGR (2011-15)	Top imported Products	Share (%)
South Africa	0.48%	15.18%	-6.17%	Mineral fuels (27)	17.49
				Nuclear and Mechanical appliances (84)	13.32
				Electrical equipments (85)	10.87
				Commodities nes (99)	8.62
				Vehicles (87)	8.19
Egypt	0.40%	12.62%	1.52%	Nuclear and Mechanical appliances (84)	12.16
				Vehicles (87)	7.85
				Electrical equipments (85)	7.55
				Mineral fuels (27)	7.45
				Plastics (39)	5.01
Algeria	0.28%	8.89%	-0.32%	Nuclear and mechanical appliances (84)	16.48
				Vehicles (87)	9.08
				Electrical equipments (85)	8.95
				Cereals (10)	5.85
				Iron and Steel (72)	5.65
Nigeria	0.24%	7.61%	-11.14%	Mineral fuels (27)	14.35
				Nuclear and mechanical appliances (84)	11.33
				Electrical equipment (85)	9.92

				Vehicles (87)	6.49
				Plastics (39)	4.48
Morocco	0.23%	7.16%	-4.02%	Mineral fuels (27)	18.08
				Electrical equipments (85)	9.61
				Nuclear and mechanical appliances (84)	8.47
				Vehicles (87)	8.05
				Plastics (39)	4.61
Ethiopia	0.16%	4.92%	30.52%	Nuclear and mechanical appliances (84)	13.31
				Electrical equipments (85)	12.88
				Mineral fuels (27)	9.89
				Vehicles (87)	9.56
				Plastics (39)	5.38
Tunisia	0.12%	3.86%	-4.14%	Mineral fuels (27)	14.21
				Electrical equipments (85)	12.55
				Nuclear and mechanical appliances (84)	9.36
				Vehicles (87)	7.82
				Plastics (39)	5.52
Kenya	0.11%	3.49%	5.02%	Mineral fuels (27)	12.55
				Electrical equipments (85)	10.33
				Vehicles (87)	8.69
				Nuclear and mechanical appliances (84)	8.05
				Plastics (39)	4.35
Angola	0.10%	3.12%	-2.28%	Nuclear and mechanical appliances (84)	16.54
				Ships and Boats (89)	9.82
				Electrical equipments (85)	8.44
				Articles of iron or steel (73)	8.06
				Mineral fuels (27)	4.18
Tanzania	0.09%	2.80%	7.08%	Mineral fuels (27)	50.67
				Electrical equipments (85)	6.55
				Nuclear and mechanical appliances (84)	6.46
				Vehicles (87)	5.74
				Plastics (39)	3.02
Ghana	0.08%	2.54%	1.34%	Nuclear and mechanical appliances (84)	11.86
				Electrical equipments (85)	9.65
				Mineral fuels (27)	7.51
				Vehicles (87)	6.54
				Plastics (39)	4.93
Libya	0.07%	2.06%	10.92%	Mineral fuels (27)	9.40
				Electrical equipments (85)	8.34
				Nuclear and mechanical appliances (84)	7.60
				Aircraft and spacecraft (88)	6.96
				Vehicles (87)	4.43
Liberia	0.05%	1.63%	-17.34%	Ships and Boats (89)	50.31
				Commodities nes (99)	28.99
				Mineral fuels (27)	5.07
				Nuclear and mechanical appliances (84)	2.78
				Electrical equipments (85)	1.76
Zambia	0.05%	1.61%	4.07%	Mineral fuels (27)	18.74
				Nuclear and mechanical appliances (84)	14.55
				Ores, slag and ash (26)	7.28
				Vehicles (87)	6.56
				Electrical equipments (85)	6.39
Mozambique	0.05%	1.51%	5.82%	Mineral fuels (27)	12.99
				Nuclear and mechanical appliances (84)	12.02
				Vehicles (87)	9.16
				Electrical equipments (85)	7.73
				Ships and Boats (89)	6.77
Sudan (North + South)	0.04%	1.42%	-6.04%	Nuclear and mechanical appliances (84)	10.19
				Vehicles (87)	9.33
				Sugars (17)	6.82

				Electrical equipments (85)	6.54
				Pharmaceutical products (30)	6.22
Senegal	0.04%	1.42%	5.87%	Mineral fuels (27)	11.41
				Nuclear and mechanical appliances (84)	8.41
				Cereals (10)	7.68
				Electrical equipments (85)	7.05
				Vehicles (87)	6.56
Cote d'Ivoire	0.04%	1.41%	2.45%	Nuclear and mechanical appliances (84)	12.54
				Cereals (10)	7.66
				Electrical equipments (85)	6.44
				Vehicles (87)	5.73
				Plastics (39)	5.34
Congo	0.04%	1.22%	-2.32%	Nuclear and mechanical appliances (84)	13.83
				Printed books, newspapers, etc (49)	8.68
				Ships and Boats (89)	7.87
				Electrical equipments (85)	7.71
				Articles of iron or steel (73)	7.52
Cameroon	0.04%	1.17%	4.84%	Printed books, newspapers, etc (49)	16.02
				Electrical equipments (85)	8.73
				Nuclear and mechanical appliances (84)	8.32
				Vehicles (87)	6.46
				Cereals (10)	5.72
Zimbabwe	0.04%	1.14%	-8.60%	Mineral fuels (27)	26.39
				Nuclear and mechanical appliances (84)	9.32
				Vehicles (87)	7.66
				Cereals (10)	6.83
				Electrical equipments (85)	6.71
Namibia	0.03%	1.07%	-3.42%	Vehicles (87)	12.88
				Nuclear and mechanical appliances (84)	10.88
				Mineral fuels (27)	9.95
				Electrical equipments (85)	6.85
				Articles of iron or steel (73)	5.50
Uganda	0.03%	1.05%	-0.46%	Mineral fuels (27)	18.67
				Vehicles (87)	9.60
				Nuclear and mechanical appliances (84)	8.74
				Electrical equipments (85)	7.66
				Pharmaceutical products (30)	6.71
Botswana	0.03%	0.99%	-8.06%	Pearls and precious stones (71)	23.53
				Mineral fuels (27)	13.79
				Nuclear and mechanical appliances (84)	8.44
				Vehicles (87)	6.73
				Electrical equipments (85)	6.14
DR Congo	0.03%	0.93%	-1.99%	Nuclear and mechanical appliances (84)	15.22
				Electrical equipments (85)	11.80
				Pharmaceutical products (30)	8.13
				Vehicles (87)	7.29
				Articles of iron or steel (73)	4.63

Source: PHD Research Bureau

During 2015, South Africa and Egypt accounted double digit import shares in pan-Africa, viz. 15.18% and 12.62% respectively. Their majority of the imports are in category of mineral fuels (HS 27), nuclear and mechanical appliances (HS 84), vehicles (HS 87), and electrical equipments (HS 85). In addition, for other top importers within Africa, mineral fuels and nuclear and mechanical appliances remained the top priority imports from the world.

The top 7 importers within Africa imported more than three – fifth of the total imports in pan-Africa. This reveals that significant import demand is driven through these 7 countries in Africa. On the other hand,

based on growth figures, several countries displayed the potentiality of expansion in imports including Libya (10.92%), Tanzania (7.08%), Senegal (5.87%), Mozambique (5.82%), and Kenya (5.02%) with CAGR figures for 2011 – 15.

3.6 Advantage Analysis of top products imported by Africa

To access the advantage held by different countries in Africa, Revealed Comparative Advantage is a renowned and prevalent tool. Furthermore, to test for the export potentiality and predictive performance of products from different countries, a comparative advantage comparison table has been formulated taking into consideration the value of RCA of countries for top products imported by Africa, growth rate of competitiveness, and growth in market share during 2011-15.

Revealed comparative advantage (RCA) index use the trade pattern to identify the sectors in which an economy has a comparative advantage, by comparing the country's interests' trade profile with the world average. If value exceeds unity (1), the country is said to have revealed comparative advantage.

Table 3.4: Comparative Advantage Comparison table of Top 25 imported products in Africa

HS Code	Revealed Comparative Advantage(2015)					CAGR of RCA (2011-2015)					CAGR of Market share (2011-2015)				
	India	China	France	USA	Germany	India	China	France	USA	Germany	India	China	France	USA	Germany
10	4.19	0.02	2.26	2.03	0.42	11.2%	-17.5%	-7.4%	-8.9%	5.5%	58.3%	-20.5%	-6.7%	-24.6%	30.5%
15	0.84	0.06	0.46	0.40	0.43	10.4%	4.5%	-13.9%	-7.5%	3.0%	-14.8%	-27.1%	18.4%	-20.2%	8.3%
17	0.53	0.29	1.54	0.54	0.63	-30.9%	5.7%	-8.4%	2.6%	4.7%	11.9%	7.5%	-11.0%	-25.6%	-22.0%
27	1.55	0.11	0.30	0.62	0.20	10.3%	3.1%	-7.2%	5.9%	9.8%	6.3%	-3.0%	10.4%	-14.4%	-32.0%
29	0.85	0.83	0.86	1.14	0.90	-13.5%	-0.7%	-7.4%	-2.6%	2.5%	11.2%	6.5%	-2.7%	-11.4%	-3.2%
30	1.50	0.10	1.74	1.03	1.89	8.5%	-2.9%	-2.2%	0.3%	0.8%	11.6%	6.9%	1.9%	-8.3%	-11.8%
38	0.59	0.56	1.93	1.66	1.64	-8.3%	-2.7%	-1.3%	1.0%	-0.5%	1.4%	6.5%	3.1%	-0.2%	-7.3%
39	0.36	0.85	1.01	1.18	1.35	-11.3%	2.7%	-3.5%	-1.7%	0.4%	1.8%	16.6%	-6.8%	-6.2%	-3.1%
40	0.80	0.88	1.11	0.89	1.15	4.4%	0.4%	-9.5%	3.1%	3.7%	8.0%	11.0%	-22.3%	-14.8%	-11.8%
48	0.80	0.87	1.13	1.09	1.51	29.1%	7.5%	-7.7%	0.0%	-2.5%	1.8%	14.0%	-2.9%	-4.3%	-3.1%
49	0.45	0.64	4.25	1.21	1.34	2.6%	2.3%	30.5%	-3.4%	-2.0%	-26.6%	-25.1%	60.7%	-38.2%	-27.2%
61	4.79	2.67	0.53	0.13	0.44	30.2%	-7.5%	-0.6%	-0.8%	-4.9%	-4.9%	10.0%	-10.8%	-32.9%	-23.7%
62	6.54	2.50	0.75	0.12	0.47	28.5%	-4.7%	0.1%	-1.3%	-8.1%	17.9%	11.5%	-11.8%	-14.9%	-26.2%
64	0.58	2.77	0.67	0.11	0.47	-14.9%	-5.6%	5.7%	-4.6%	-4.3%	32.2%	4.3%	-13.5%	-13.5%	-43.0%
72	0.47	1.09	1.11	0.49	0.88	-17.1%	8.2%	-10.2%	-6.7%	-0.8%	-3.4%	35.3%	-9.2%	-30.7%	-10.4%
73	1.16	1.55	0.88	0.76	1.27	-2.7%	-1.1%	-5.5%	0.3%	-2.5%	-2.5%	13.2%	-2.6%	-18.5%	-16.1%
76	0.85	1.05	0.86	0.80	1.19	14.6%	0.7%	-3.9%	-3.1%	-1.6%	-5.3%	15.2%	-4.3%	-21.3%	-18.1%
84	0.30	1.36	0.93	1.16	1.43	-1.4%	-4.6%	-1.5%	-1.2%	-2.0%	0.8%	5.9%	0.1%	1.0%	-2.0%
85	0.21	1.85	0.51	0.79	0.69	-11.0%	-1.8%	-3.6%	-3.4%	-5.0%	-11.0%	7.9%	-7.7%	-2.4%	-4.6%
87	1.56	0.34	0.98	1.05	2.26	34.1%	-2.0%	-4.4%	-2.2%	-1.2%	10.6%	9.6%	0.4%	-15.0%	-1.9%
88	3.15	0.07	6.22	4.05	1.51	54.6%	3.4%	11.1%	-1.4%	-4.6%	-44.7%	-22.7%	34.4%	-14.9%	-36.0%

89	2.57	1.40	2.36	0.23	0.48	4.0%	-10.3%	66.9%	8.5%	15.5%	21.8%	-4.3%	82.6%	56.2%	17.9%
90	0.40	0.98	0.90	1.68	1.42	18.5%	-2.7%	-2.1%	-2.1%	-1.8%	-7.9%	8.0%	-0.9%	-4.3%	-5.5%
94	0.19	2.95	0.46	0.52	0.84	-9.4%	-0.1%	-2.4%	-3.8%	-8.1%	4.1%	14.2%	-6.0%	-3.6%	-12.1%
99	2.28	0.06	0.61	1.98	1.40	-3.7%	-3.5%	81.3%	6.6%	-4.7%	-7.3%	18.5%	0.5%	-2.2%	2.7%

Source: PHD Research Bureau

Based on the RCA analysis, India holds significant advantage in exporting Cereals (10), mineral fuels and products thereof (27), Knitted apparels and clothing (61), not-knitted apparels and clothing (62), ships and boats (89). It is quite evident from the table above that in Cereals (10), India was able to enhance its comparative advantage significantly which led to substantial expansion in its market share by 58.3% between 2011 and 2015. Conversely, India faces stiff competition in the product sectors such as aircraft, spacecraft and parts thereof; vehicles; articles of iron and steel; and pharmaceutical products, wherein it holds comparative advantage but lower than compared to other top exporters in Africa.

Trade & Investment Facilitation Services

TIFS

SINGLE WINDOW INFORMATION AND PROCEDURAL FACILITATION

Trade and Investment Facilitation Services (TIFS) is a vital component for international trade and investment community. It is envisioned to facilitate firms across the globe for trade and investments in India while simultaneously meeting India's rapidly growing appetite for new markets to enhance trade and investments.

Considering the thirst of the Nation to place India at the forefront of Global Economic Architecture, PHD Chamber of Commerce and Industry launched a specialized desk on Trade and Investment Facilitation Services (TIFS) on 31st March 2017. TIFS is an information and advisory hub to provide requisite and detailed information to facilitate national and international business firms to invest in India; advising them on prospective business opportunities in India in general and in States and promising sectors in particular.

Vision of TIFS

We aim to make India a US$ 100 billion (per annum) investment destination in the next five years and to enhance India's trade trajectory to the higher level. We envisage US$ 1000 billion merchandize trade (exports and imports) and US$ 500 billion services trade (exports and imports) per annum in the next five years.

Geographical Area

TIFS covers pan India from Jammu Kashmir in the North to Tamil Nadu in the South and from Gujarat in the West to Arunachal Pradesh in the East.

Three role dimensions

1. **Information role:**
Serving as a key link to all information centres on all national and regional/local regulations and clearances. This includes maintaining or having direct and easy access to such information. This also means constant updating of such information.

2. **Catalyst role:**
Providing facilitative advisory services to help overcome key obstacles and strengthen key positive enablers for enhanced trade and investments. This includes providing information or "leads" on opportunities that would benefit international business community to invest in India.

3. **Networking role:**
Effective networking with relevant Indian and overseas agencies and leveraging of such networks in the direction of risk mitigation and enhancing trade and investments.

Strategic Collaborators of TIFS

TIFS work in close coordination with Trade Consulars' of different countries as well as international trade and business community and international chambers of commerce. Further, for facilitating and providing information on procedural requirements, TIFS also work in close coordination with the government both at the central and the state level as well as industry associations in India.

How TIFS work in assisting investors?

It is envisaged to be the first-point-one-stop reference for potential investors from around the world. Our team of domain and functional experts provides sector-and state-specific inputs, and hand- holding support to investors. We assist with location identification, expediting regulatory approvals, facilitating meetings with relevant government and corporate officials among others. For instance, if an investor A from Germany wants to invest USD 100 million in a textile business in India.

- A team of trained staff will be associated with the task for maintaining a physical helpdesk and provide the investor with all the help required regarding the relevant approvals to set up a business and information related to investment areas across India.
- Facility to set up meetings of the investors with Government officials for specific investor queries, both at the state government and central government level.
- Regular updates on various economic developments in India in general and sector specific in particular.
- Updates on state level developments related to policy amendments, sectoral developments, taxation mechanism, infrastructural, etc.
- Updates on Foreign Direct Investment norms, Foreign Trade Policy, etc.

TIFS undertakes the following activities

i. Through regular research and networking with Government bodies, Entrepreneurs, Industry associations, Embassies/Consulates, Investment delegations, etc., the TIFS gather information on possible trade and investment opportunities in various sectors of the Indian economy.

ii. TIFS advises prospective traders and investors, national and international, in their process of filing applications and helping them meet other procedural and regulatory requirements. For this purpose, information on specific trade and investment guidelines at the state and central level is provided by TIFS.

iii. TIFS provides information at a broad level to international investors about possible potential joint venture partners in India. If TIFS is aware of any Indian parties interested in formation of Joint Ventures (JVs) with some global partners, such information is made available to interested investors.

iv. In case of requests made by individual investors to undertake specific research assignments, financial analysis or due diligence of any specific joint venture partner or Mergers & Acquisitions (M&A) targets, TIFS provides adequate resources to carry out such requests on an agreed cost.

v. In a nutshell, TIFS increases understanding amongst national and international investors on the promising investment areas and requirements and regulations for making investments. Facilitates in dealing with the Government in application procedures amongst the national and international Investors. Reduce lead time in investment processes and procedural transactions.

Registration

Registration is open to both Indian and foreign entities.

Registration fee is for your registration with TIFS program to receive updates on trade and investment scenario regularly for 1 year from the date of registration. However, for your specific queries consultancy charges would vary from case to case basis for facilitation services on detailed projects and exhaustive research studies.

For details, contact:

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India-Africa Trade Analysis
An Intensive Approach

4 INDIA – AFRICA TRADE ANALYSIS: AN INTENSIVE APPROACH

4.1 Introduction

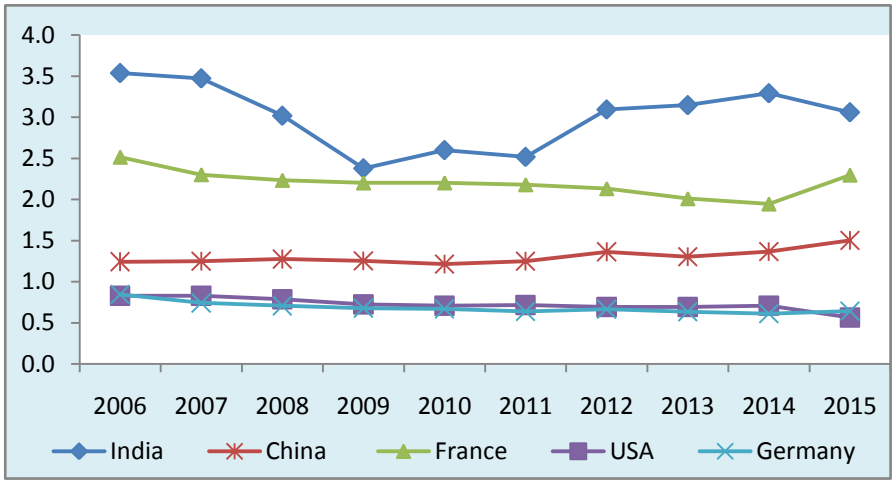
The following chapter scrutinizes the India-Africa trade considering the global performance of India. First, export performance of India in Africa is gauged using various international trade indices such as Trade Intensity Index to ascertain the degree of presence of India in Africa, the level of intra-industry trade between the countries, the concentration level of exports from India, among other pertinent indicators utilized in the study, in comparison with other eminent exporters to Africa.

The objective of the following analysis is to demystify the strengths, weaknesses, opportunities, and threats to Indian products in Africa, especially putting the lens on other top exporters to Africa. Further, the export potentiality and competitiveness of Indian products has been measured, wherein we instilled various indicators in our research so as to comprehensively capture the image of India and other top exporters in African market. We have used certain indicators, explained later in this chapter, based on the characteristics of the results they achieve, which are pertinent and essential for the analysis.

4.2 Significant Presence: Trade Intensity Index

Trade intensity index reveals whether or not a region exports more (as a percentage) to a given destination than the world does on average. It does not suffer from any 'size' bias, so we can compare the statistic across countries, and over time when exports are growing rapidly. It is measured as country i's exports to country j relative to its total exports divided by the world's exports to country j relative to the world's total exports.

Figure 4.1: Trade Intensity Index of various countries in Africa



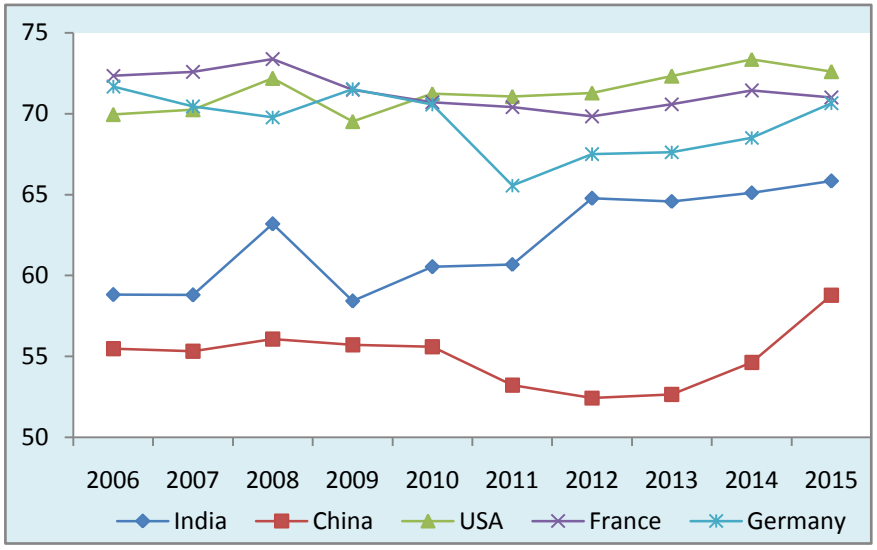
Source: PHD Research Bureau

It is revealed from the figure 4.1 that India's overall presence, compared to average world presence in Africa, is significantly higher than top countries. India has been able to maintain its position consistently since 2006, however registered a crash in 2015 perhaps in favour of China and France who were able to enhance the value of exports in the same period.

4.3 Low but rising alignment: Trade Complementarity Index

TCI measures the degree to which the export pattern of one country matches the import pattern of another. A high degree of complementarity is assumed to indicate more favourable prospects for a successful trade arrangement. Transition over time helps in evaluating whether trade profiles are becoming more or less compatible.

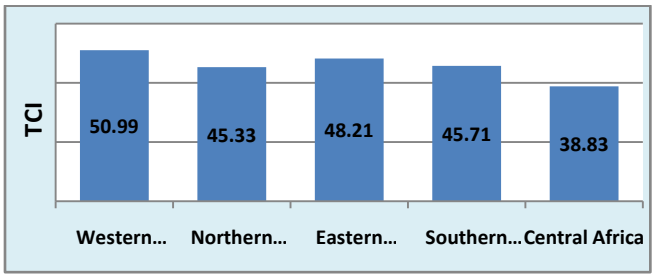
Figure 4.2: Trade Complementarity Index of India (exporter) with Africa(importer)



Source: PHD Research Bureau

From the illustration 4.2 above, India's trade complementarity index stood at near 51 in 2015 compared to 41 in 2006. This highly suggests that over the period of a decade, India's export pattern have become more aligned with the import pattern of Africa. Notably, India's TCI trend has consistently increased during the same period. India is still behind USA, France and Germany as far as complementarity goes. But growing alignment projects a significant shift in Indian exports to a new growth trajectory.

Figure 4.3: Trade complementarity Index (Region-wise) (2015)



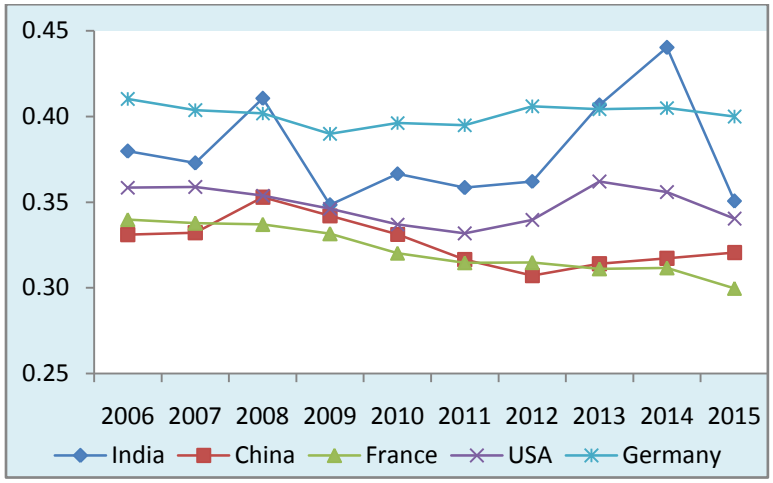
Source: PHD Research Bureau

Based on regions, India's TCI with Western Africa and Eastern Africa is more than other regions in Africa. Pertinent to alignment of Indian exports with African demand, Western and Southern Africa may exhibit rising patterns for Indian exportable products.

4.4 Moderate diversification in products: Sectoral Hirschman Index

SHI focuses on the degree of concentration of exports to an entity. With highly focused exports, the export scenario becomes more susceptible to volatility perhaps due to changes in the abrupt demand for the products the exporting country highly exports. 0 indicates a perfectly diversified export portfolio, whereas 1 indicates that the country export only one commodity suggesting least diversification. The trend of SHI indicates whether the country has diversified or vice versa over the years.

Figure 4.4: Sectoral Hirschman Index of exports of various countries in Africa



Source: PHD Research Bureau

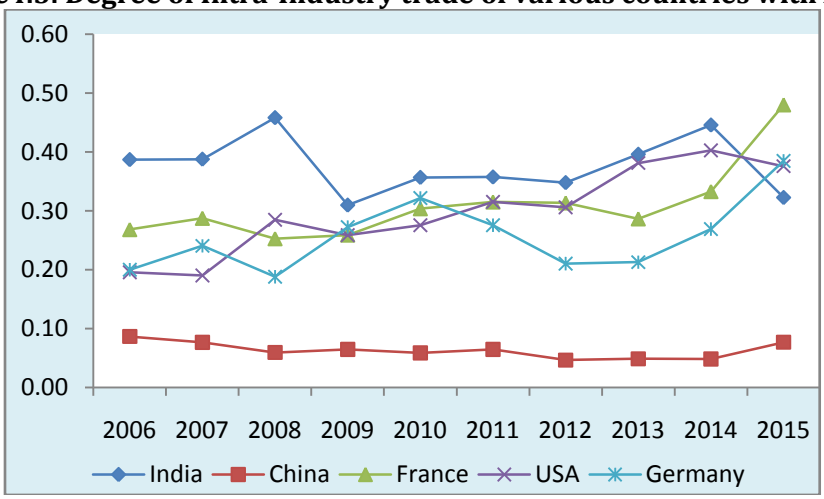
India's concentration in the basket of goods it exports to Africa was significantly high in 2008. As exports were mainly focused on consumer goods, the SHI was relatively high. However, India's exports are getting more and more diversified over the years to Africa. Notwithstanding the change is arguably slower but visible. In the current scenario, India has been able to penetrate the African's market on electrical equipment, machinery, nuclear reactors, vehicles, aircraft and parts thereof, and plastics products. Notwithstanding the export situation on concentration front has become favourable for India over the years, the problem of susceptibility and volatility still looms. India needs to further work on equitable distribution to diversify exports in Africa by aggressively and tactfully negotiating with African countries.

Compared to China and France, India needs to further diversify the basket of exports to African countries so as to minimize the degree of volatility in the international trade.

4.5 Resilient intra-industry trade; elbow-room for growth: Grubel-Lloyd Index

It is an indicator to measure the scale of intra industry trade. GL_i = 1, there is only intra-industry trade, no inter-industry trade. This means for example the Country in consideration exports the same quantity of good i as much at it Imports. Conversely, if GL_i = 0, there is no intra-industry trade, only inter-industry trade. This would mean that the Country in consideration only either Exports or only Imports good i.

Figure4.5: Degree of Intra-Industry trade of various countries with Africa



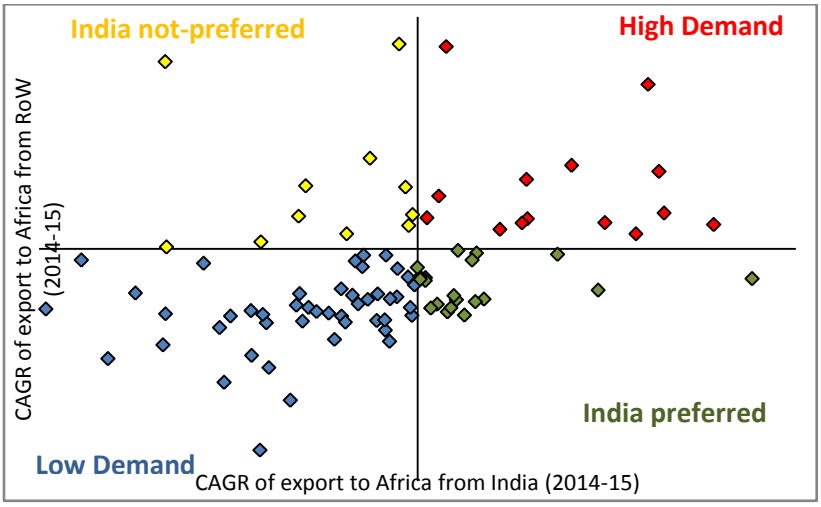
Source: PHD Research Bureau

Trading in similar products helps in exploiting economies of scale for similar resource endowing countries. The above Chart depicts the time series of Aggregate adjusted Grubel- Lloyd Index (GLI) of all products trade between India and Africa. The Chart indicates that the value of GLI for India hovered around 0.4 between 2006 and 2015.This implies that our intra industry trade with Africa has remained substantial but declining over the years. It can be argued that by engaging in Intra-Industry Trade, India can diversify exports not only across industries but rather within an industry and benefit from economies of scale. To enhance its mark in the Africa's value chain, India needs to strategically increase both its imports and exports with Africa.

4.6 Demand Analysis

The undertaken analysis maps products based on their demand from Africa. Prima facie, rise in imports from India and corresponding fall in imports from rest of the world leads to a scenario wherein India is preferential destination for Africa. Similarly if imports from rest of the world rise compared to fall in imports from India, India is not a preferential destination for corresponding product. High demand quadrant translates to overall increase in demand for the product whereas low demand quadrant highlights to overall low demand for the product in Africa.

Figure 4.6: Demand-Map of Africa (India's case)



Source: PHD Research Bureau

Based on the demand- analysis conducted, India holds significant preferentiality for the products listed in Green quadrant in the African market. However, products delineated in the yellow quadrant indicated that India is not preferred comparatively for those very products. At this juncture, India also needs to focus on the products delineated under the Low Demand category.

Table 4.1: Demand Analysis Table for Africa (with reference to India)

Imports in Africa*	India ↑	India ↓
Rest of the World↑	**(14)** Vegetable products; **(52)** Cotton; **(56)** Wadding, nonwovens, special yarns, twine, cordage, ropes and cables and articles thereof **(57)** Carpets and other textile floor coverings; **(58)** Special woven fabrics, tufted textile fabrics, embroidery; **(61)** Articles of apparel and clothing accessories, knitted or crocheted; **(62)** Articles of apparel and clothing accessories, not knitted or crocheted; **(64)** Footwear, gaiters and the like **(65)** Headgear and parts thereof; **(66)** Umbrellas, walking sticks, and parts thereof; **(75)**Nickel and articles thereof; **(79)**Zinc and articles thereof; **(86)**Railway or tramway locomotives, and parts thereof;	**(42)** Articles of leather, etc; **(49)** Printed books, newspapers, other products of the printing industry; **(54)** Man-made filaments, strip and the like; **(55)** Man-made staple fibres; **(59)** Impregnated, coated, covered or laminated textile fabrics; **(60)** Knitted or crocheted fabrics; **(63)** Other made-up textile articles, worn clothing and worn textile articles; **(67)** Prepared feathers and articles made of feathers, artificial flowers; **(76)** Aluminum and articles thereof **(83)** Miscellaneous articles of base metal; **(88)** Aircraft, spacecraft, and parts thereof; **(92)** Musical instruments; parts such articles; **(93)** Arms and ammunition; parts thereof

	(91) Clocks and watches and parts thereof; **(94)** Furniture, bedding, mattresses, mattress supports, cushions; **(96)**Miscellaneous manufactured articles; **(97)**Works of art, collectors' pieces and antiques.	
Rest of the World↓	**(01)** Live animals; **(17)** Sugars and sugar confectionery**;** **(18)**Cocoa and cocoa preparations; **(19)** Preparations of cereals, flour, starch or milk; **(28)** Inorganic chemicals; organic or inorganic compounds of precious metals; **(29)**Organic chemicals; **(30)**Pharmaceutical products; **(31)** Fertilizers; **(33)**Essential oils and resinoids; perfumery, cosmetic or toilet preparations; **(34)**Soap, organic surface-active agents, washing preparations; **(39)**Plastics and articles thereof; **(43)**Fur skins and artificial fur; **(51)** Wool, fine or coarse; **(53)**Other vegetable textile fibres; paper yarn and woven fabrics of paper yarn; **(68)**Articles of stone, plaster, cement, asbestos, mica or similar materials; **(69)**Ceramic products; **(80)**Tin and articles thereof; **(81)**Other base metals & articles thereof; **(82)**Tools, implements, cutlery, spoons and forks of base metal; parts thereof; **(95)** Toys, games and sports; parts and accessories thereof	**(02)** Meat and edible meat offal; **(03)** Fish and other aquatic invertebrates; **(04)** Dairy produce; **(05)** Products of animal origin; **(06)** Live trees and other plants; bulbs, roots and the like; **(07)** Edible vegetables and certain roots; **(08)** Edible fruit and nuts; peel of citrus fruit or melons; **(09)** Coffee, tea, maté and spices; **(10)** Cereals; **(11)** Products of the milling industry; malt; starches; wheat gluten; **(12)** Oil seeds and oleaginous fruits; **(13)** Lac; gums, resins and other; (**15)** Animal or vegetable fats and oils and their cleavage products; **(16)** Preparations of meat, of fish other aquatic invertebrates; **(20)** Preparations of vegetables, fruit, nuts or other; **(21)** Miscellaneous edible preparations; **(22)** Beverages, spirits and vinegar; **(23)** Residues and waste from the food industries; prepared animal fodder; **(24)** Tobacco and manufactured tobacco substitutes; **(25)** Salt; sulphur; earths and stone; plastering materials, lime and cement; **(26)** Ores, slag and ash; **(27)** Mineral fuels and oils; **(32)** Tanning or dyeing extracts**;** **(35)** Albuminoidal substances; modified starches; glues; enzymes; **(36)** Explosives; pyrotechnic products; matches; pyrophoric alloys; **(37)**Photographic or cinematographic goods; **(38)**Miscellaneous chemical products; **(40)**Rubber and articles thereof; **(41)**Raw hides and skins (other than fur skins and leather); **(44)**Wood and articles of wood**;** **(45)**Cork and articles of cork; **(46)**Manufactures of straw, of esparto or of other plaiting materials; **(47)**Pulp of wood or of other fibrous cellulosic material; **(48)** Paper and paperboard and articles thereof; **(50)**Silk; **(70)**Glass and glassware; **(71)** Pearls, precious or semi-precious stones; **(72)**Iron and steel; **(73)**Articles of iron or steel; **(74)**Copper and articles thereof; **(78)**Lead and articles thereof; **(84)**Machinery, mechanical appliances, nuclear reactors, boilers; parts thereof; **(85)**Electrical machinery and equipment and parts thereof; **(87)**Vehicles other than railway or tramway rolling stock, and parts thereof; **(89)** Ships, boats and floating structures; **(90)** Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical; **(99)** Commodities not elsewhere specified

Source: PHD Research Bureau, * Between 2014 and 2015

The above table summarized the products according to the demand revealed by African nations. Products such as vegetable products, cotton, apparels, footwear, carpets, headgears, clocks and watches have witnessed a surge in imports in Africa between 2014 and 2015. India has also utilized this rising demand from Africa for the aforementioned products and gained significantly while exporting to the continent. Astoundingly, products such as soaps, washing items, sugar, toys and games, organic chemicals, fertilizers,

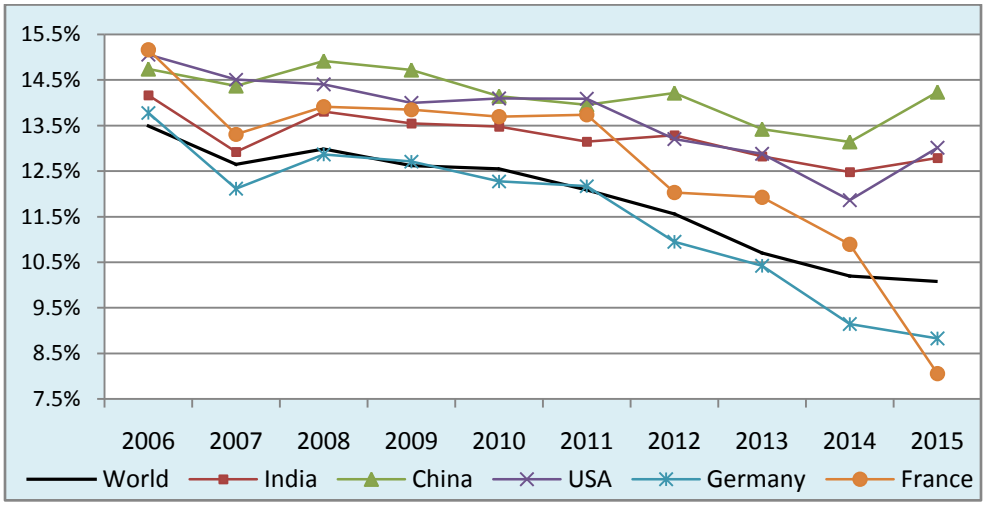
pharmaceutical products, wool, ceramic products, cocoa products, plastics, etc. witnessed a tremendous growth in African imports during 2014-15 from India. These aforementioned products can be titled as 'India preferred' products wherein the imports in Africa seen rise from India and fall from rest of the world. These products hold tremendous and sustainable potential for Indian exporters in the medium to long run, given the high competitiveness.

On the other hand, products basket of meat, fish, dairy produce, cereals, coffee, tobacco, optical equipments, iron and steel and articles thereof, lead and products thereof, electrical machinery and equipments, etc. witnessed a plunge in African imports. However, a limited basket of products witnessed downfall in imports by Africa from India, viz. aluminum products, musical instruments, arms and ammunition, leather articles, man-made filaments, prepared feathers and artificial flowers, etc. These products are categorized under 'India not-preferred', wherein imports by Africa from rest of the world seen a surge but from seen drop from India during 2014-15.

4.7 Tariff Analysis

Africa, a group of heterogeneous countries, has a very diverse tariff structure at the disaggregated level. On a holistic level, tariffs in Africa remained high – second highest as a region, after South Asia – peak tariffs prevailed in the sensitive sectors.

Figure4.7: Trend line of simple average tariff faced by different countries in African Market



Source: PHD Research Bureau; Compiled from WITS Database

The overall trend in average tariffs in Africa suggests a decline since 2006 from 13.5% to 10.1% in 2015. However, except for Germany, all the other countries were exposed to average tariff rates higher than the overall world average level. Although average tariff faced by France remained higher than the overall average, the trend registered a consistent plummet over the years. France witnessed significantly lower tariffs compared to overall average in 2015.

For India, on the other hand, tariff rates remained on the higher quadrant, and also the gap between India and overall average has compounded since the narrow gap in 2007, as in the figure above. The average tariff on India was pegged at 12.8% in 2015, a 2.7 percentage point higher than the overall average. There

lies a huge scope of growth for Indian exports in Africa, given a significant reduction, or even putting in tandem with overall average level, in the tariff rates in Africa.

Table 4.2: Overall tariff structure for products based on state of processing in Africa

Product Description	Simple Average Tariff (2015)					
	World	India	China	France	Germany	USA
Raw material	7.58	8.68	9.22	7.71	7.13	8.37
Intermediate goods	6.34	8.64	9.82	3.89	4.63	8.12
Consumer goods	14.51	17.6	19.47	12.12	13.28	17.98
Capital goods	4.99	5.86	5.6	4.18	4.97	6.25

Source: PHD Research Bureau; Compiled from WITS Database

Tariff structure of Africa revealed that India and China are exposed to surge tariffs. Compared to world average, France and Germany enjoys relatively lower tariffs in all the four segments. Raw material exports from India are further pushed by near 9% duty in Africa. On the other hand, consumer goods from India are charged with 21% higher duty than world average and 45% higher duty than France's average. This debilitating tariff structure poses a significant threat for Indian exports in Africa.

Table 4.3: Overall tariff structure in African market

HS Code	Product Description	Simple Average Tariff[4](2015)					
		World	India	China	France	Germany	USA
10	Cereals	7.5	9.61	9.17	7.94	9.63	9.56
15	Animal Or Vegetable Fats And Oils	10.4	13.77	15.9	7.33	9.75	12.86
17	Sugars And Sugar Confectionery	13.98	16.16	16.06	11.06	12.82	14.33
27	Mineral Fuels, Mineral Oils And Products Of Their	3.95	5.25	5.8	3.68	3.65	5.51
29	Organic Chemicals	2.09	3.35	3.36	0.93	1.7	3.7
30	Pharmaceutical Products	1	1.27	1.85	0.45	0.78	1.44
38	Miscellaneous Chemical Products	3.72	5.47	5.25	2.5	3.59	5.78
39	Plastics And Articles Thereof	9.41	12.09	11.47	7.21	9.06	11.9
40	Rubber And Articles Thereof	9.32	11.8	11.6	6.12	9.05	12.27
48	Paper And Paperboard; Articles Of Paper Pulp	9.76	13.6	12.93	7.38	9.07	13.52
49	Printed Books, Newspapers, Pictures And Other Prod	6.49	9.84	8.68	5.95	7.5	7.58
61	Articles Of Apparel And Clothing Accessories, Knit	22.85	26.38	28.78	14.55	18.63	30.49
62	Articles Of Apparel And Clothing Accessories, Not Knit	21.71	25.2	28.96	15.62	18.29	29.89
64	Footwear, Gaiters And The Like, etc	17.3	19.59	23.54	14.86	15.31	21.74
72	Iron And Steel	4.47	7.45	7.06	2.89	3.86	5.85
73	Articles Of Iron Or Steel	10.3	13.85	13.34	7.88	10.4	13.31

[4] Simple Average of all the countries in Africa

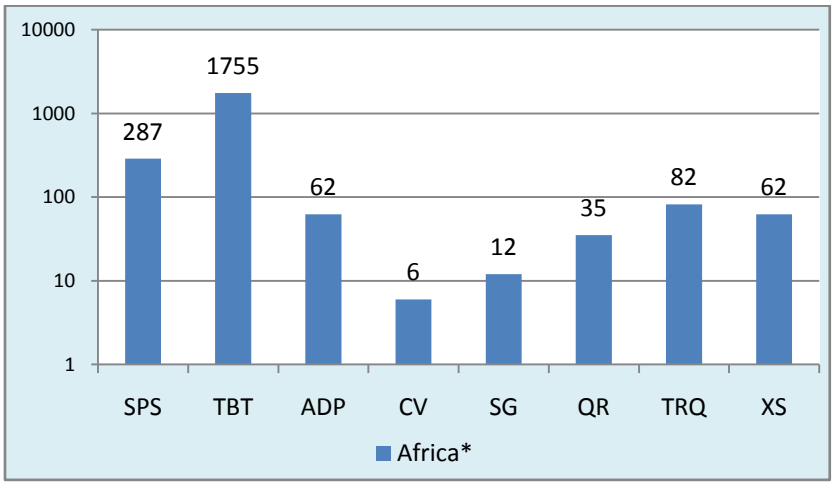
76	Aluminum And Articles Thereof	9.36	13.92	12.41	7.07	8.99	12.71
84	Nuclear Reactors, Boilers, Machinery And Mechanical	4.13	4.74	4.38	3.51	4.18	5.29
85	Electrical Machinery And Equipment And Parts Thereof	8.43	9.9	10.75	7.52	8.65	10.19
87	Vehicles Other Than Railway Or Tramway Rolling	9.39	10.83	11.74	7.52	9.41	12.02
88	Aircraft, Spacecraft, And Parts Thereof	0.91	0.83	1.49	1.12	1.05	1
89	Ships, Boats And Floating Structures	6.21	6.8	7.9	3.79	6.07	8.62
90	Optical, Photographic, Cinematographic, Measuring	3.56	4.36	4.96	2.58	3.89	4.82
94	Furniture; Bedding, Mattresses, Mattress Supports	17.03	19.7	22.47	15.24	16.47	20.35

Source: PHD Research Bureau; Compiled from WITS Database

It can be accessed from the table above that India is exposed to exorbitant tariffs compared to the average global level in Africa. Except for Aircrafts and Spacecrafts (88) exports from India, all the other top products imported by Africa emanate high simple average tariffs. Interestingly, France, among the top exporters to Africa, is exposed to some of the lowest tariff barriers. Tariff duties on products imported from France are lower than the world's simple average. This is the primary reason for the abrupt surge in exports from France in African markets. Conversely, with higher than average duties, products from India face severe competition from France despite price competitive exports.

Highest tariffs are attracted by the apparel segment, both knitted and non-knitted, in Africa. Conversely, lowest of the tariffs are on Aircrafts and Spacecrafts and pharmaceutical products.

Figure4.8: Various non-tariff measures imposed by Africa



Source: PHD Research Bureau; Compiled from WTO Statistics Database;
***Africa based on members in WTO as on 31st June 2016**

Of the total non-tariff measures, Technical Barriers to Trade (TBT) held the majority stake in Africa's trade structure. TBT has been used substantially by Africa to restrict imports from the world. In addition to TBTs, Sanitary and Phytosanitary (SPS) measures, Tariff rate quotas, Anti-dumping duties and Export subsidies also played a pivotal role in protecting domestic products and keeping imports at bay. Owing to these significant measures, the prospect of export growth in Africa seems a little bleak.

Determinant Analysis in India-Africa Trade
A Gravity Approach

5 DETERMINANT ANANLYSIS IN INDIA-AFRICA TRADE: A GRAVITY APPROACH

5.1 Introduction

The basic gravity equation of international trade, conceived by Jan Tinbergen (1962), postulated that the trade between countries is directly proportional to the product of their GDPs and inversely proportional to the distance between the countries. The concept of the model is inspired from the famous Newton's theory of gravitational force. The basic equation specified for the gravity model of trade was as follows:

$$Trade_{ij} = G * \frac{GDP_i * GDP_j}{Distance_{ij}}$$

Here,

$Trade_{ij}$ = Trade flows between country i and country j.
GDP_i = Gross Domestic Product of country i
GDP_j = Gross Domestic Product of country j
$Distance_{ij}$ = Distance between the two countries i and j
G = Gravity coefficient

5.2 Data

Data extraction for India's export has been done from Trademap. However, for the explained variables such as GDP at current USD prices, per capita income at current USD prices the data has been compiled from World Bank Database and International Financial Statistics Database. The distance data has been gathered from www.distancefromto.net. The time period selected for the analysis is 2006 – 2015. To simplify the model to an extent, some of the variables are incorporated in an interactive form.

5.3 Model

The model built is inspired from Frankel et al. (1995), Ghosh (2002), and Nag B, Nandi A (2006).The model is built upon GDP, distance, and multiplicative and interactive form for percapita GDP. Instead of considering total trade as a dependent variable, India's exports are taken as the response variable.

$$\log(Ex_{ind,j}) = \beta_0 + \gamma_j + \beta_1 \log(GDP_{ind}) + \beta_2 \log(GDP_j) + \beta_3 \log(Distance_{ind,j}) + \beta_4 \log(PCI_{ind} * PCI_j) + \mu_{ind,j}$$

j = Africa's 52 nations; North and South Sudan are clubbed together and Somalia has been excluded from the analysis

Ex_{ind} = India's export
GDP_{ind} = GDP (in USD at current prices) of India
GDP_j = GDP (in USD at current prices) of country j
$Dis_{ind,j}$ = Distance between India and country j

$\mathbf{PCI_{ind}}$ = Per capita income of India
$\mathbf{PCI_j}$ = Per capita income of country j
$\mu_{ind,j}$ = Stochastic error term

The model created and estimated through a panel framework over cross-section framework. As stated by Peter Egger (2000), a panel framework reveals several advantages over cross-section analysis: On the one hand, panels allow to capture the relationships between the relevant variables over a longer period and to identify the role of the overall business cycle phenomenon. On the other hand, through a panel approach one is able to disentangle the time invariant country-specific effects.

The model estimated henceforth is done in two forms, i.e. by the fixed-effect (FEM) panel estimation technique and by the random-effect (REM) panel estimation technique. Under both the estimation techniques, cross-sections, i.e. the countries, are taken as weights to put the emphasis on the countries relation with India. As explained by Baldwin (1994) that parameters estimated using the panel framework technique are the influential elasticities of explanatory variable on the response variable.

According to Egger (2000), fixed effect model is the right way to estimate a gravity model, not the random effect. Fixed effects are due to omitted variables that are specific to cross-sectional units or to time periods. Some of the main forces behind the fixed export effects should be tariff policy measures and export driving or impeding 'environmental' variables. The latter include size of country, access to transnational infrastructure networks, geographical and historical determinants. As most of these effects are not random but deterministically associated with certain historical, political, geographical and other facts, a fixed effect model would be the right choice. Another argument which favours the FEM is based on the problem of sample selection. However, perhaps, the only drawback associated with the FEM is that time-invariant variables such as distance and dummy variables cannot be included and analyzed. Therefore, in Model B, all the time invariant regressors are dropped like Distance. However, as distance is the essence of the gravity model, we cannot afford to exclude it. Therefore, the distance variable is replaced with remoteness variable, which is nothing but GDP weighted distance. Remoteness is used as proxy for distance. As Gomez-Herrera (2010) suggested to manoeuvre the distance variable and transform into remoteness. Also, Head-Mayer (2013) transformed the distance variable by taking into equation the size, distance and the cost of moving to different countries. Wei (1996) and Wolf (2000) also gave examples of running regressions using remoteness variable. Formula used for remoteness:

$$Remoteness_{ind.j} = \frac{D_{ind.j}}{GDP_j / GDP_w}$$

Here,
$D_{ind.j}$ = Distance between India and corresponding country j
GDP_j = Gross Domestic Product of country j
GDP_w = Gross Domestic Product of the world

Table 5.1: Coefficient's estimates derived from the gravity equation analysis (2006 – 2015)

Explanatory variables	MODEL A			MODEL B		
	Panel estimation: Random effects			Panel estimation: Fixed Effects (Cross-section weights)		
	Coefficient	Standard Error	p-value	Coefficient	Standard Error	p-value
Constant	-8.69	5.81	0.14	-76.37	5.90	0.00
GDP (India)	1.51	0.16	0.00	0.64	0.19	0.00
GDP (African Nations)	0.95	0.10	0.00	4.07	0.32	0.00
Distance	-1.37	0.64	0.03	-	-	-
Remoteness	-	-	-	2.72	0.29	0.00
Per Capita Income	-0.34	0.13	0.01	-0.96	0.19	0.00
R^2	0.54			0.98		
Adjusted R^2	0.54			0.98		
F-Stat	150.95			474.55		
Durbin-Watson stat	1.23			1.53		
Country effects$\{\gamma_j\}$						
Algeria	-0.19			-0.85		
Angola	-0.15			-0.63		
Benin	1.54			0.67		
Botswana	-0.71			-0.18		
Burkina Faso	-0.51			-1.80		
Burundi	-0.96			-0.74		
Cabo Verde	-2.31			-2.80		
Cameroon	-0.50			-1.09		
Central African Republic	-2.01			-1.73		
Chad	-1.72			-1.52		
Comoros	0.15			2.13		
Congo	0.93			1.25		
Congo Dem Rep	-2.75			-3.86		
Cote d'Ivoire	0.18			-1.33		
Djibouti	2.48			5.68		
Egypt	-0.22			0.46		
Equatorial Guinea	-1.39			-0.29		
Eritrea	-1.34			0.60		
Ethiopia	-0.89			-0.12		
Gabon	-0.67			-0.03		
Gambia	1.66			0.62		
Ghana	0.96			-0.34		
Guinea	1.03			-0.58		
Guinea Bissau	-0.18			-1.21		
Kenya	1.21			1.91		
Lesotho	-0.07			-0.01		
Liberia	1.41			0.14		
Libya	-0.79			0.18		
Madagascar	-0.41			-0.16		
Malawi	0.03			-0.02		
Mali	-0.37			-1.59		
Mauritania	0.22			-0.56		
Mauritius	2.31			4.74		
Morocco	-0.52			-1.69		
Mozambique	1.22			0.91		
Namibia	0.18			0.37		
Niger	-0.55			-1.33		
Nigeria	-0.19			-1.60		

Rwanda	-0.83	-0.44
Sao Tome & Principe	-0.83	0.00
Senegal	1.12	-0.51
Seychelles	1.03	5.79
Sierra Leone	0.75	-0.69
South Africa	0.96	-0.09
Sudan (South + North)	-0.24	0.47
Swaziland	-0.09	0.66
Tanzania	0.93	1.00
Togo	1.90	1.03
Tunisia	-0.27	-0.09
Uganda	-0.17	0.04
Zambia	-0.11	-0.18
Zimbabwe	-0.27	-0.58

Source: PHD Research Bureau

5.4 Results

Table above explores the India's export function. Two gravity models developed has been estimated using two different statistical techniques. For both the models, F-stat turned out to be high suggesting high statistical significance of the overall model. The Durbin-Watson statistic also revealed no-auto correlation for both the models.

In **Model A**, viz. *random effect model*, all the variables are statistically significant except for the intercept term as p-values for all the independent variables are less than the level of significance, i.e. 5%. However, adjusted R^2 turned out to be only 0.54, indicating 54% of the deviation in exports are caused by the variables selected in model A. The response coefficient of India's GDP estimated at 1.51, indicating a positive relationship between India's GDP and India's export to Africa. For instance, with every 1% growth in GDP of India, exports to Africa grew by 1.51%. Similar relationship has been estimated between India's export to Africa and African countries' GDP. For instance, GDPj has positive but less than proportional impact on India's export to Africa.

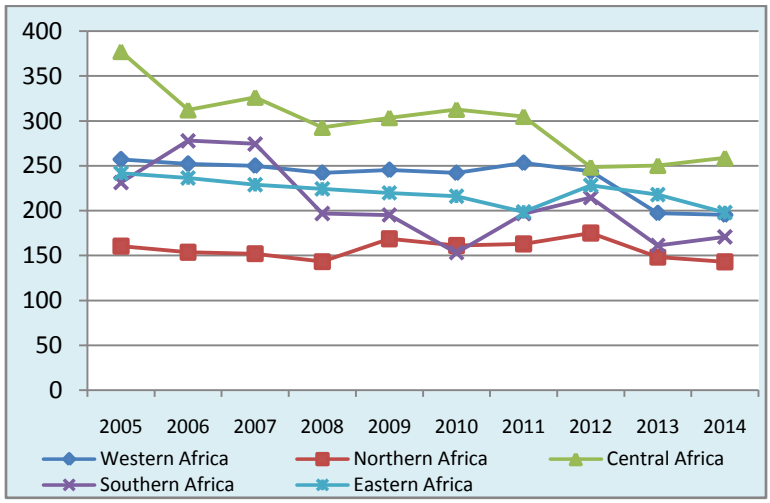
The most essential element of gravity model, i.e. distance, reflected a negative elasticity coefficient. Logically, distance between two countries and cost to trade are directly proportional. With a percent increase in distance leads to 1.37% drop in Indian exports to Africa. The sample statistic for per capita income turned out to be negative which is highly influenced by the population factor in per capita income. The per capita income variable is a nested variable that include four other variables in interactive form, viz. GDP of India, GDP of African countries, population of India and population of African countries. Although the individual effects might turn out to be very different from each other, their interactive response to exports is negative. Indian exports may get squeezed if population of countries taken in analysis starts to shrink suggesting fall in demand for Indian products. However, this also suggests the rise in per capita income of India shifts the purchasing power curve to a higher level thereby increasing the volume of imports rather than exports. Also, with rising per capita income of African countries, their import demand might shift from India to other countries, which can be explained from negative elasticity coefficient of percapita income in Model A.

Based on country-effects estimated via Model A, certain countries in Africa exhibited positive potential for Indian exports, such as Benin, Comoros, Congo, Cote d'Ivoire, Djibouti, Gambia, Ghana, Guinea, Kenya, Liberia, Malawi, Mauritania, Mauritius, Mozambique, Namibia, Senegal, Seychelles, Sierra Leone, South Africa, Tanzania, and Togo. Some of the countries exhibited negative effects for India's exports such as Algeria, Angola, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Guinea Bissau, Lesotho, Libya, Madagascar, Mali, Morocco, Niger, Nigeria, Rwanda, Sao Tome & Principe, Sudan (North + South), Swaziland, Tunisia, Uganda, Zambia, and Zimbabwe.

In **Model B**, viz. *Fixed Effect Model*, adjusted R^2 is fairly high suggesting 99.7 percent of the variations in Indian exports are explained by the variables selected in the model. All the explained variables in the model resulted statistically significant. Elasticity coefficient for GDP of India turned out to be positive but less than proportional; with a percent rise in GDP of India, the impact on exports to Africa is only 0.64%. On the other hand, impact of GDP of African countries on India exports is significant high; with every percent rise in African GDP, Indian exports are expected to rise by 4%.

In model B, distance is replaced with remoteness variable, viz. Income-weighted distance. As explained in the previous section, fixed effect model cannot analyze the time invariant variables such as distance, or dummy variables. Based on fixed effect analysis, elasticity coefficient for remoteness turned out to be positive. This can be interpreted as with growing remoteness, India's exports face a favourable scenario in Africa. This coefficient can also be reinforced based on India's Trade Complementarity Index with different regions in Africa. India's TCI with Western Africa and Southern Africa is comparatively higher than the other regions, indicating that although Western and Southern Africa are farthest from India, there lie huge similarities between import pattern of Western and Southern Africa and export pattern of India. This alignment propels trade further despite of relatively longer distance than other regions. Also, a quick trade cost analysis between African regions and India has been done so as to gauge the overall cost of conducting trade. Based on trade cost analysis figure 5.1 below, Western and Southern Africa registered decline in trade cost with India, over time.

Figure 5.1: Trade Cost Analysis between India and Africa



Source: PHD Research Bureau; Compiled from World Bank Database

Elasticity coefficient of interactive form of Per capita income turned out to be negative similar to the one registered in model A, indicating with every rise in per capita income, Indian exports to Africa falls. Based on the country effects in Model B, various countries in Africa registered positive effect on Indian exports over time, including Benin, Comoros, Congo, Djibouti, Egypt, Eritrea, Gambia, Kenya, Liberia, Libya, Mauritius, Mozambique, Namibia, Sao Tome & Principe, Seychelles, Sudan (North + South), Swaziland, Tanzania, Togo, and Uganda. Conversely, certain countries exhibited negative traits for Indian exports such as Algeria, Angola, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Cote d'Ivoire, Equatorial Guinea, Ethiopia, Gabon, Ghana, Guinea, Guinea Bissau, Lesotho, Madagascar, Malawi, Mali, Mauritania, Morocco, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Tunisia, Zambia, and Zimbabwe.

5.5 Conclusion

To conclude, both the models gave a fair idea about the factors significantly influencing India's export in Africa. The models, viz. Random effect model and Fixed effect model, emanated statistically significant results however, Fixed effect model bore substantial coefficient of determination (R^2) and adjusted R^2 compared to Random effect model.

Distance, the essence of gravity model, is maneuvered in FEM so as to incorporate the effects of distance in the form of remoteness. Also, with growing per capita income, it is essential to identify how the distribution of income shifts, from regressive to progressive or vice versa. This shift in income distribution pattern bears significant driving force for Indian exports in Africa.

On a positive note, both Indian GDP and African GDP bear propelling force for Indian exports. Notwithstanding the positive impact of GDP on Indian exports, there lies mixed response for Indian exports by different countries in Africa. In a nutshell, over the years, selected variables have significantly impacted Indian exports and thereby, it is imperative to put the focus on these very variables and initiate deem policy measures to transform the negative responses into positive ones for the Indian exports to Africa.

SURVEY BASED ANALYSIS ON BARRIERS FACED BY INDIAN EXPORTERS IN AFRICA

6 SURVEY BASED ANALYSIS ON BARRIERS FACED BY INDIAN EXPORTERS IN AFRICA

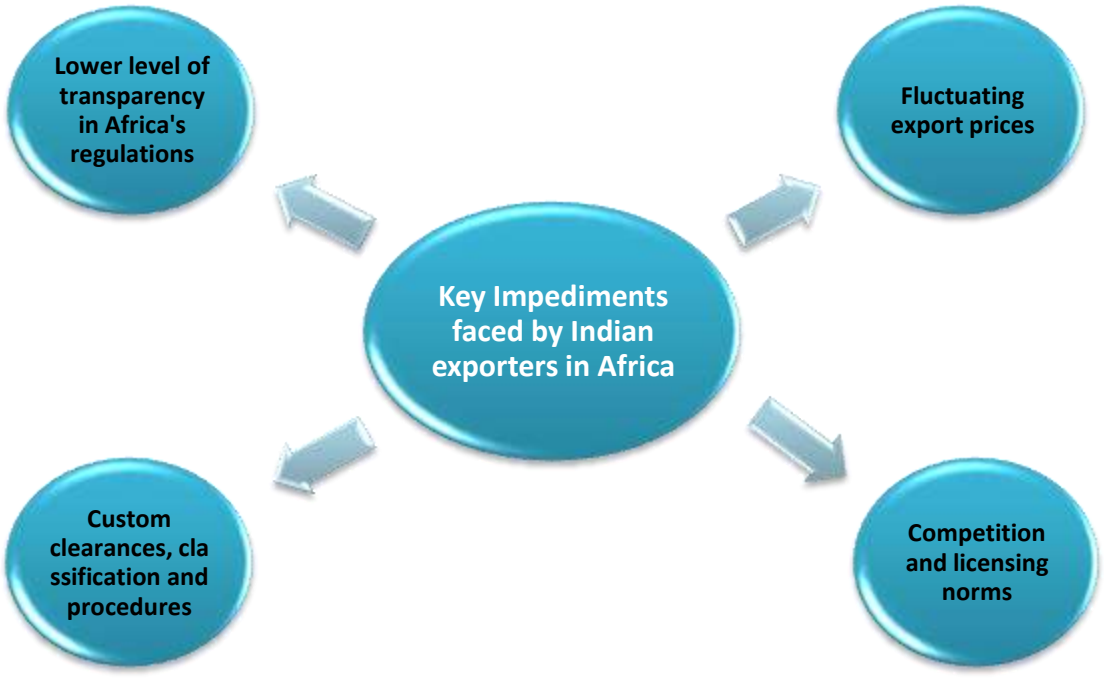
6.1 Introduction

This chapter will focus on the barriers, both tariff and non-tariff measures, which Indian exporters are currently facing in Africa. To understand the ground level reality, we have conducted an in-depth survey. The interview was conducted through a structured questionnaire. However, attempts were made to collect other information also which are of potential importance to India-Africa trade relations. The response sample size constituted of 133 industry stakeholders. The responses are from the basket of 21 differentiated industries, viz. garments, textiles, drugs and pharmaceutical, electronics (including consumer durables, electrical appliances (including white goods), machine tools (including machinery and parts), auto components, leather & leather products, sugar, food processing, plastic and plastic products, rubber and products thereof, paper and products thereof, structural metal and products thereof, paints and varnishes, cosmetics and toiletries, other chemicals, mining, hotels, marine food processing, and agro processing.

6.2 Organization of questions and Survey findings

We have divided the questionnaire into four major categories viz. General Information, Standard and Technical Barriers, Policy Issues and Implications of NTBs and Compliance Cost. In each category we have several different questions. The survey sought to identify best practices already in place and means to further improve the trade climate for Indian exporters.

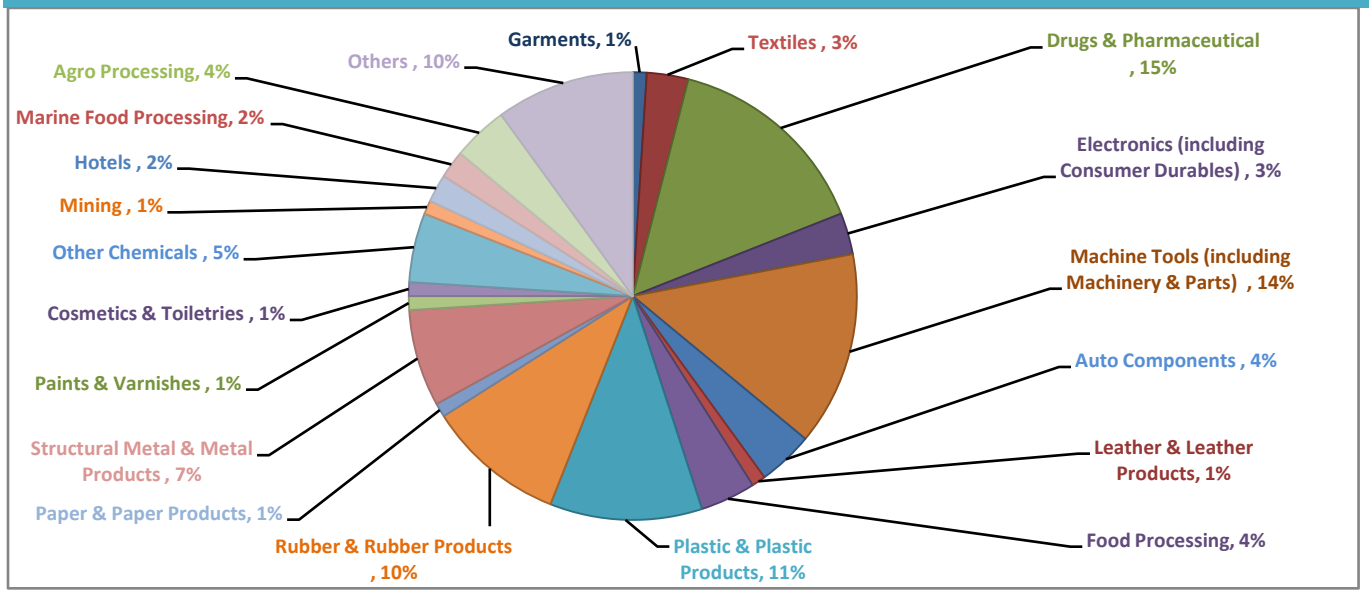
Key findings are summarized below according to the parameters prescribed in the PHD CCI survey:



6.2.1 Composition of Industries/Firms in the survey

The survey was conducted with the firms/industries across various sectors. The assessment of the survey revealed that majority of the respondents was from drugs & pharmaceuticals (15%); followed by machine tools (including machinery and parts) (14%); plastic and plastic products (11%); rubber and rubber products (10%) among others.

Figure 6.1: Composition of Industries/Firms participated in the survey



Source: PHD Research Bureau

Figure 6.2: Legal Status of the Firm

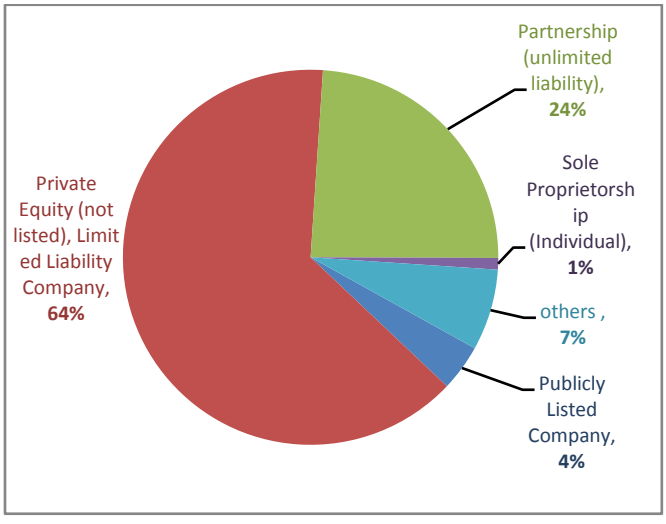
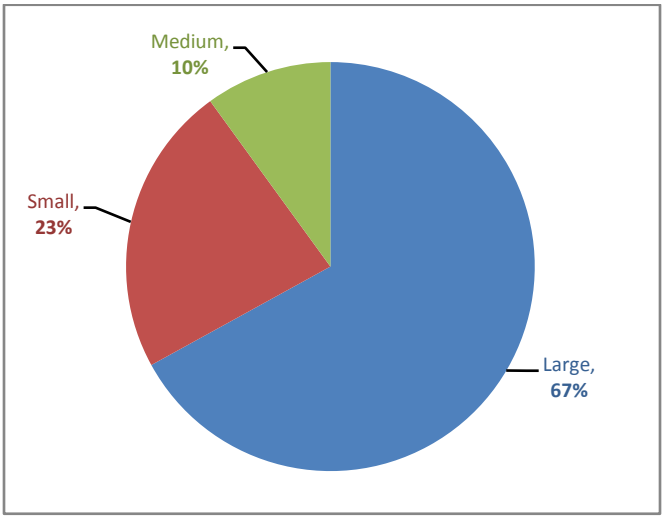


Figure 6.3: Size of the firm

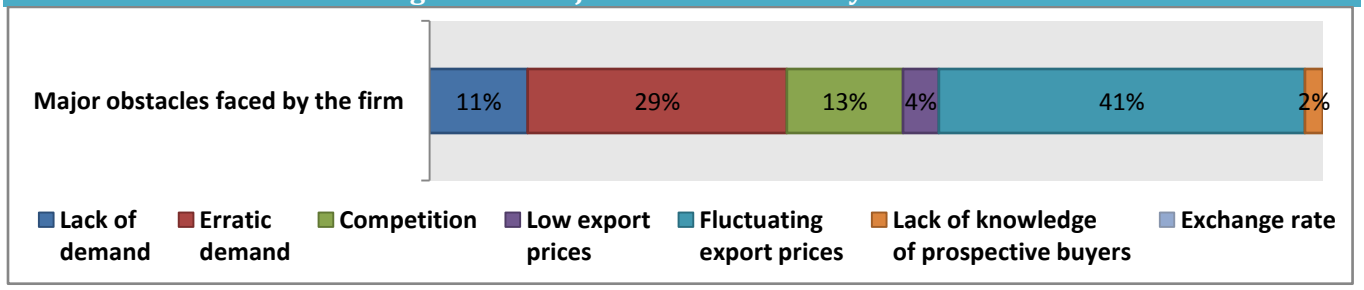


Based on the survey conducted, it was revealed that nearly 64% of firms contributed their responses were private equity (not listed), limited liability company, followed by partnership (unlimited liability) with 24% share; others (7%); and sole proprietorship (individual) and publically listed company with combined share of 5%, according to figure 6.2 above.

Also, majority of the respondent firms participated were large sized, viz. 67%; followed by small sized (23%) and medium sized (10%), based on the average revenue generated in the previous three years, according to figure 6.3 above.

6.2.2 Survey responses and interpretation

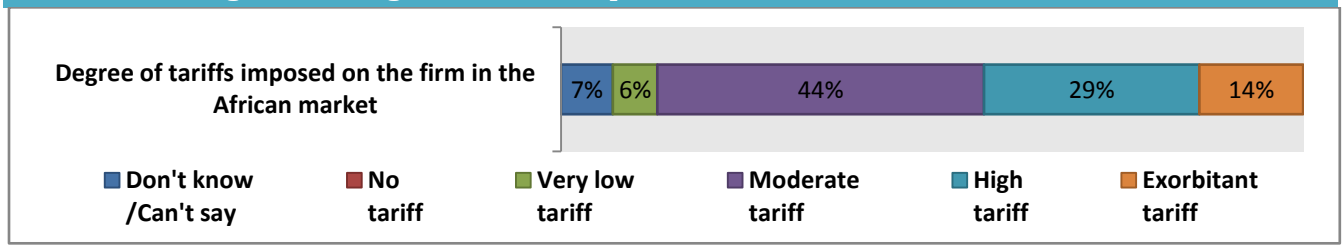
Figure 6.4: Major obstacles faced by the firm



Source: PHD Research Bureau

According to the survey and figure 6.4 above, 41% of the respondents felt that fluctuating export prices acted as the major obstacle faced by the firm while exporting to Africa, which is followed by erratic demand (29%); competition (13%), and other include lack of demand, low export prices and lack of knowledge of prospective buyers.

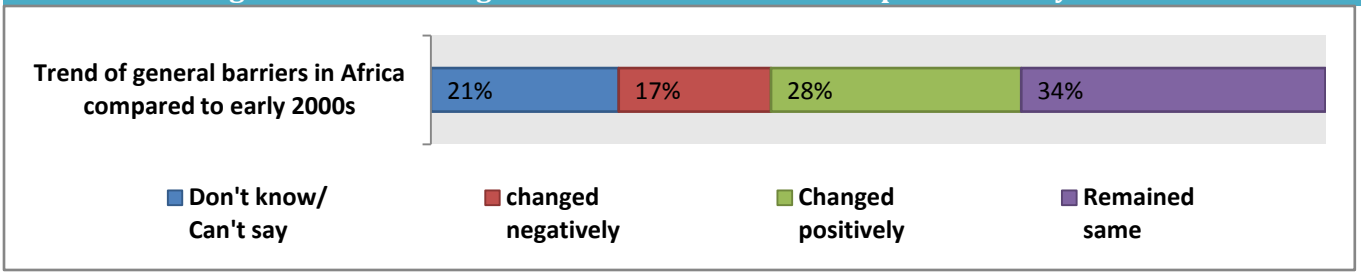
Figure 6.5: Degree of tariffs imposed on the firm in the African market



Source: PHD Research Bureau

As per figure 6.5 above, it was revealed that 44% of the respondents felt that the degree of tariffs imposed on the firm in the African market were of moderate level; however, 29% felt they are high whereas 14% felt they are exorbitant. On the other hand, 6% of the respondents noted low tariff rates in the African market.

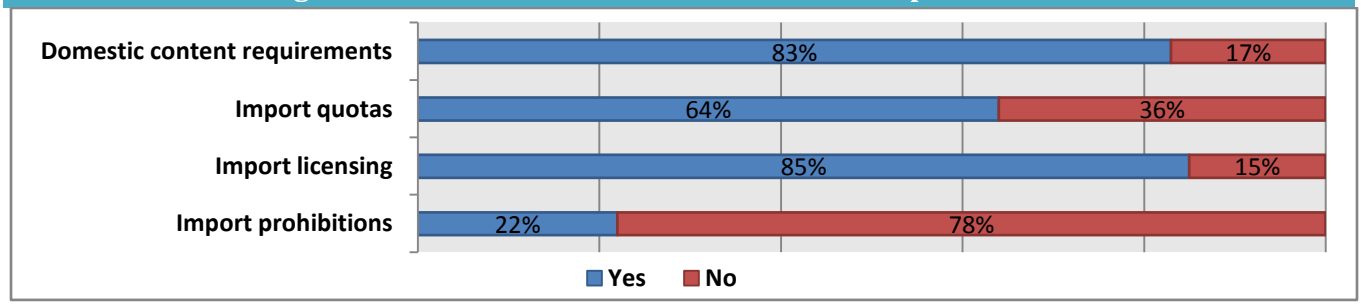
Figure 6.6: Trend of general barriers in Africa compared to early 2000s



Source: PHD Research Bureau

According to the survey and figure 6.6 above, more than one-third of the respondent felt that the trend in general barriers in Africa compared to early 2000s has remained same, whereas 28% reported that the climate of barriers has changed positively. Conversely, 17% of the respondents were pessimistic about the trend in general barriers in Africa.

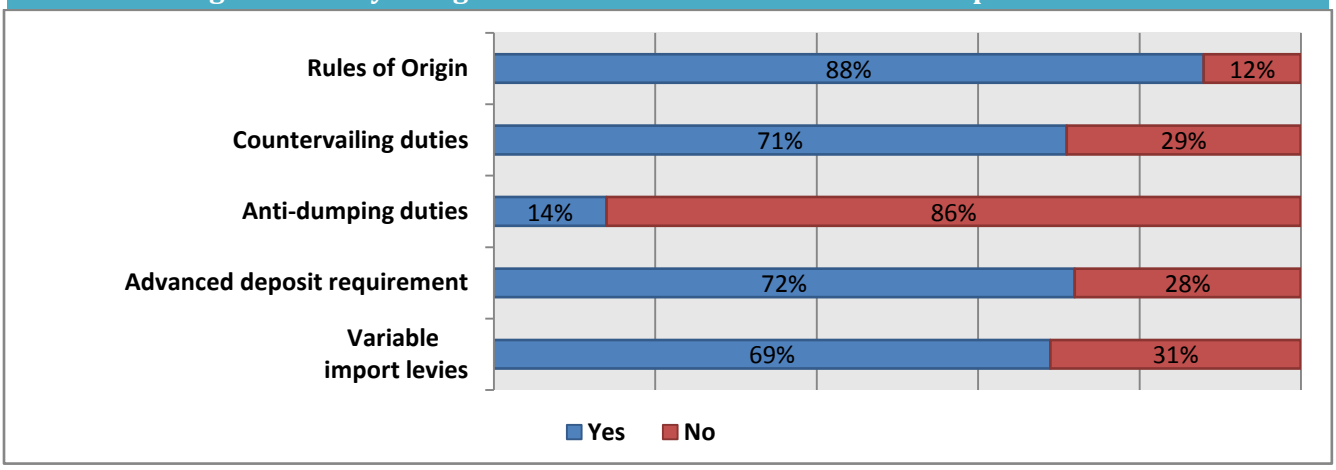
Figure 6.7: Which barriers affected the firm's export in Africa



Source: PHD Research Bureau

According to the survey and figure 6.7 above, majority of the respondents reported that domestic content requirements, import quotas and import licensing have affected their exports in Africa, whereas majority of the respondents revealed that import prohibitions didn't act as a major impediment for their exports in Africa.

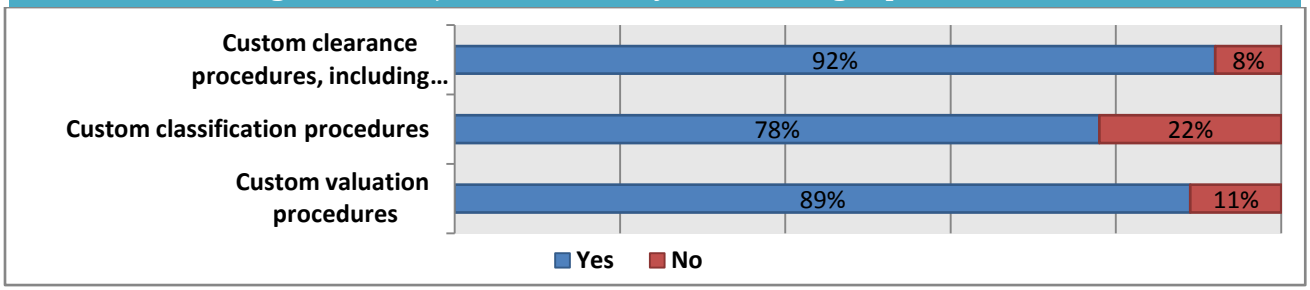
Figure 6.8: Any charge other than tariff that affect firm's export in Africa



Source: PHD Research Bureau

According to the survey revelations in figure 6.8 above, other than tariff, 88% of the respondents identified that rules of origin acted as other significant charge while exporting to Africa. Similarly, majority of the respondents reported countervailing duties, advanced deposit requirement, and variable import levies to be other significant charge. On the other hand, 86% of the respondents didn't felt that anti-dumping duties acted as significant charge.

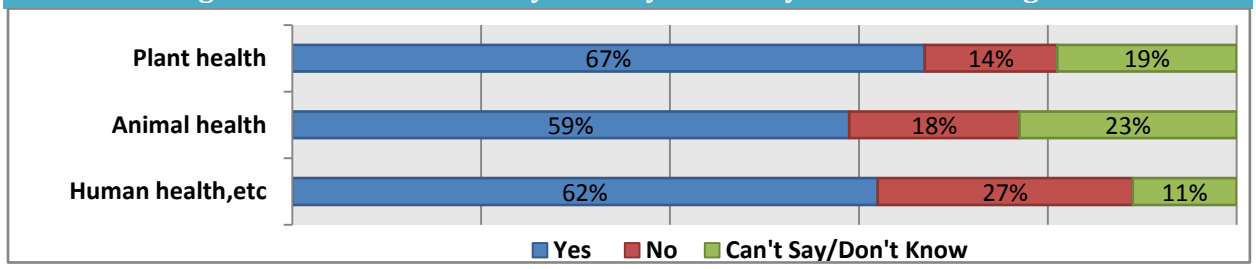
Figure 6.9: Major cause of delay in delivering export in Africa



Source: PHD Research Bureau

As per the results of the survey in figure 6.9 above, 92% of the respondents felt custom clearance procedures, including inspection and testing procedures are one of the major causes for delay in delivering export in Africa. Moreover, 78% of the respondents indicated custom classification procedures also a major cause of delay. Likewise, custom valuation procedure was highlighted by 89% of the respondents as a cause of delay.

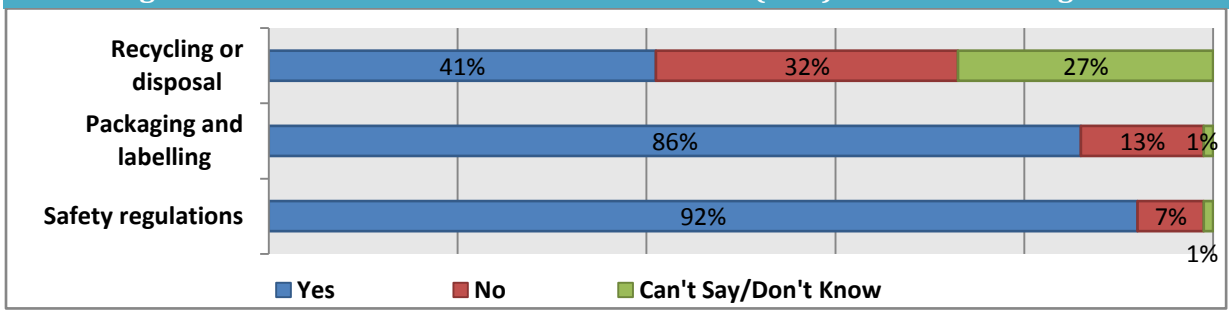
Figure 6.10: Which Sanitary and Phytosanitary Measure is stringent



Source: PHD Research Bureau

Among various Sanitary and Phytosanitary measures in place, 67% of the respondents reported SPS measures related to plant health acted as a stringent measure whereas 14% reported lenient. SPS measures related to Animal health was reported as stringent by 59% of the respondents in the sample whereas 18% reported it to be lenient. In addition, 62% of the respondents reported human health as a stringent barometer under SPS measures whereas 27% reported it to be lenient, as per the figure 6.10 above.

Figure 6.11: Which Technical Barriers to Trade (TBT) measure is stringent

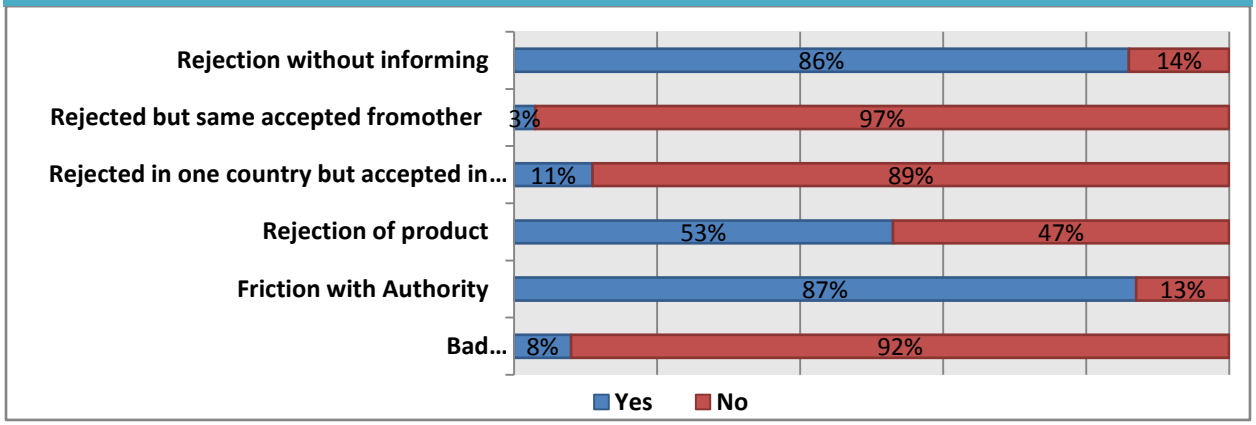


Source: PHD Research Bureau

To measure the degree of stringency in Technical barriers to Trade in figure 6.11 above, the survey revealed that 92% of the respondents felt that safety regulations are strict. On the other hand, packaging

and labeling also noted as stringent TBT by 86% of the respondents. Conversely, 41% of the respondents felt that recycling or disposal norms were stringent however 32% reported it to be lenient.

Figure 6.12: Past experience with Africa

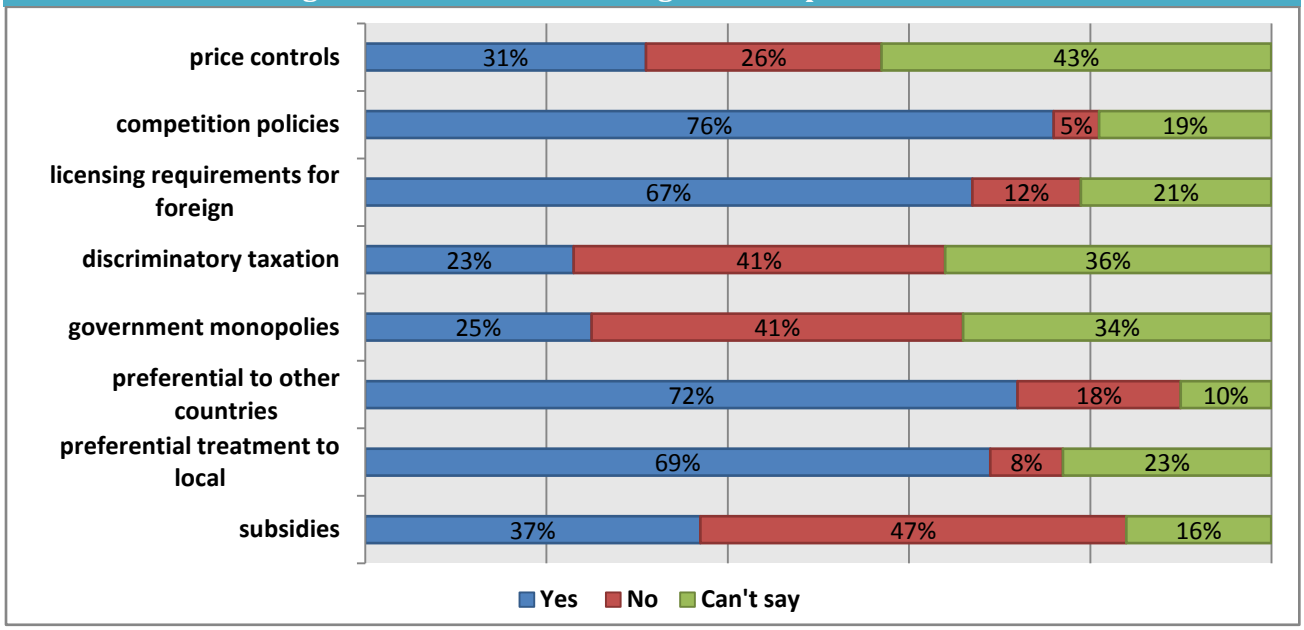


Source: PHD Research Bureau

Based on the survey conducted and results in figure 6.12 above, 92% of the respondents revealed a good experience while exporting to Africa. Around 87% of the respondents reported some kind of friction with authority whereas 53% reported that their product has been rejected before while exporting to Africa.

Also, 97% of the respondents never experienced where their product was rejected but same was accepted from other. Similarly, 89% of the respondents never witnessed a scenario wherein their product was rejected in one country but accepted in other. Interestingly, 86% of the respondents revealed that they have experienced a situation where their product was rejected without informing.

Figure 6.13: Policies affecting Indian exporters in Africa



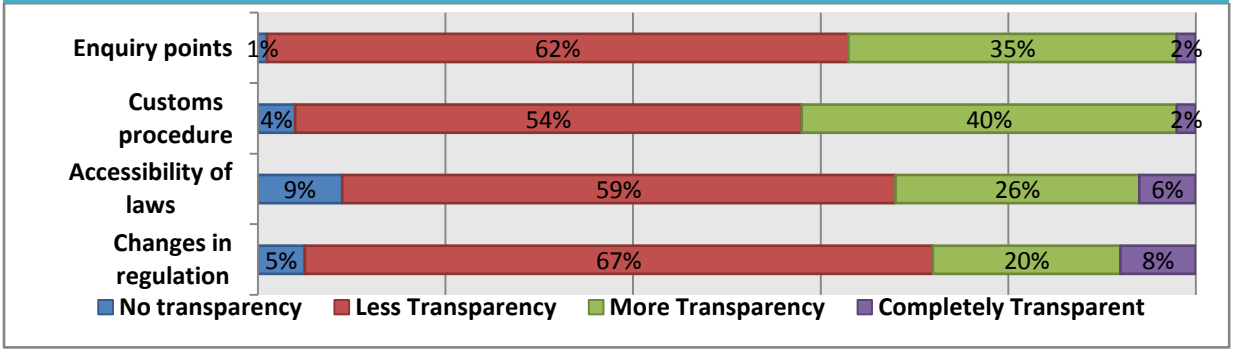
Source: PHD Research Bureau

Based on the policies affecting Indian exporters in Africa, more than two-third of the respondents revealed that competition policies, licensing requirement for foreign firms, preferential treatment towards other

countries, and preferential treatment to local have one way or the other affected the Indian exports in Africa, according to the figure 6.13 above.

Conversely, more than 40% of the respondents felt that discriminatory taxation, government monopolies, and policies pertaining to subsidies didn't affect the Indian products in Africa. Moreover, 43% of the respondents couldn't identify whether price control mechanism has affected Indian exports or not.

Figure 6.14: Overall Transparency in Africa

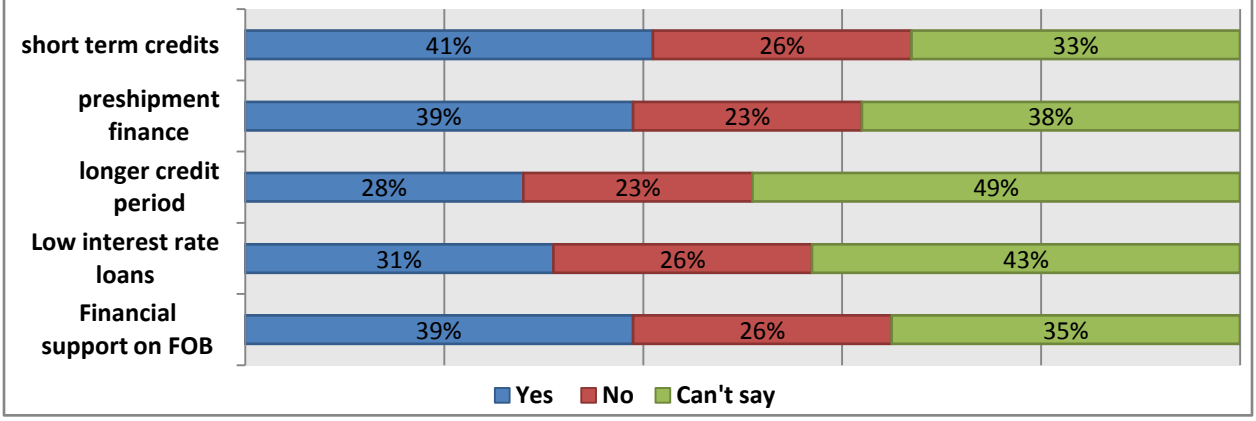


Source: PHD Research Bureau

On the transparency front illustrated in figure 6.14 above, 67% of the respondents reported less transparency as far as changes in regulations in Africa are concerned whereas 20% reported more transparency. On the other hand, accessibility of laws gathered 59% of the respondents voting for less transparency whereas 26% reported more transparency.

Similarly, 54% of the respondents revealed that they find customs procedures to be less transparent whereas 40% revealed more transparency. Around 62% of the respondents felt that enquiry points are less transparent whereas 35% reported them to be more.

Figure 6.15: Assistance received by the firm to export in Africa

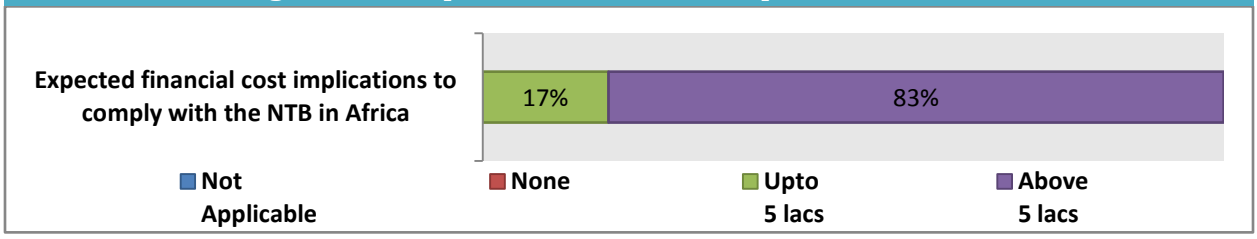


Source: PHD Research Bureau

As per figure 6.15, 41% of the respondents received assistance whereas 26% reported no assistance, in the form of short term credits. Also, 39% of the respondents reported assistance in the form of pre-shipment finance where 23% didn't receive any pre-shipment finance.

The survey results also revealed that 31% of the respondents received low interest loans while 26% didn't. Moreover, 39% of them reported that they receive financial support on FOB while 26% reportedly didn't receive any financial support on FOB.

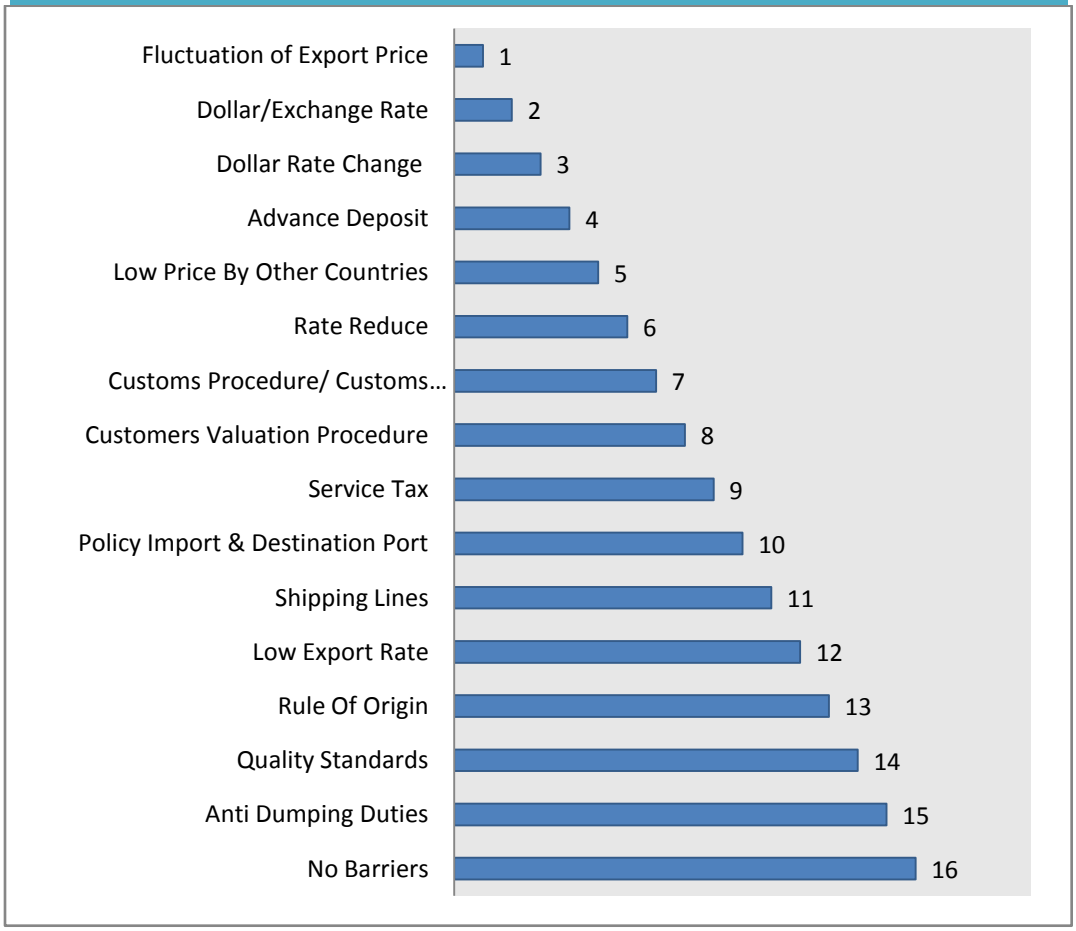
Figure 6.17: Expected financial cost implications in Africa



Source: PHD Research Bureau

According to the survey and figure 6.17 above, 83% of the respondents reported the financial cost to comply with the non-tariff barriers in Africa to be greater than INR 5 lakh whereas 17% of them reported that INR 5 lakh is enough to comply with the NTBs in Africa.

Figure 6.16: Rank of potential problems faced by the firm

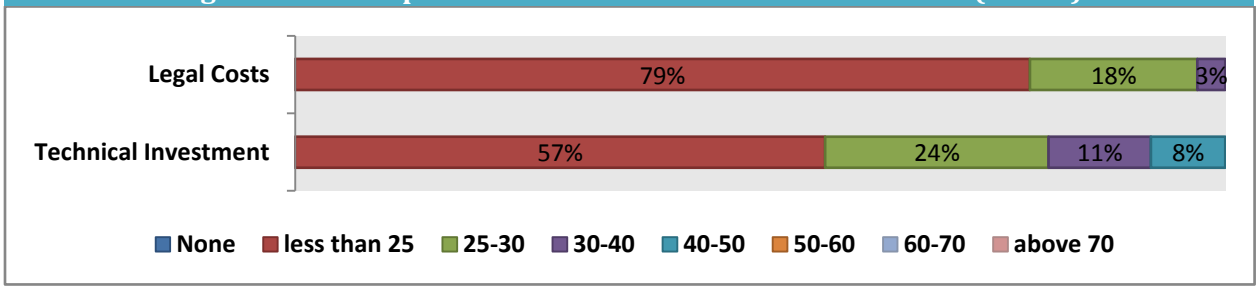


Source: PHD Research Bureau

To gather a holistic overview of the potential problems faced by the firm, ranking is conducted of various issues. Based on the survey ranking, fluctuation of export price has been selected by majority of the

respondents as the top most impediment faced by the firm; followed by dollar exchange rate; dollar rate change; advance deposit; lower price by other countries; rate reduction; customs procedure; customers valuation procedure; service tax; policy import and destination port; shipping lines; low export rate; rules of origin; quality standards; anti-dumping duties; and finally least problematic issue are no barriers, as per the ranking figure 6.16 above.

Figure 6.18: Compliance cost of non tariff barriers in Africa (in lacs)

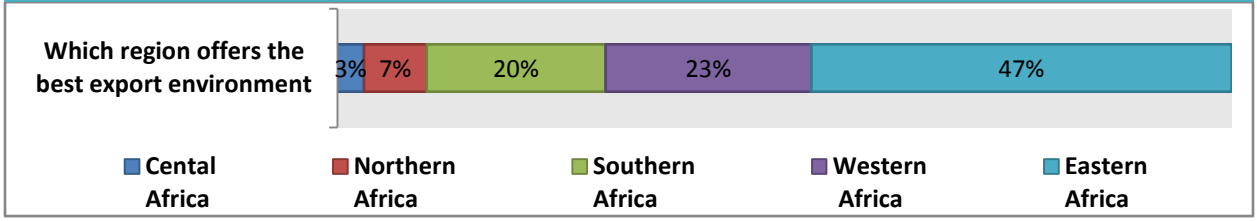


Source: PHD Research Bureau

As per the survey results, 79% of the respondents reported that the legal cost constituted to less than INR 25 lakhs while exporting to Africa, whereas 18% reported it to be between INR 25 – 30 lakhs and 3% reported it to be between INR 30 – 40 lakhs.

On the other hand, technical investment constituted to be less than INR 25 lakh as reported by 57% of the survey respondents whereas 24% reported it to be between INR 25 – 30 lakhs and 19% reported it to be greater than INR 30 lakhs.

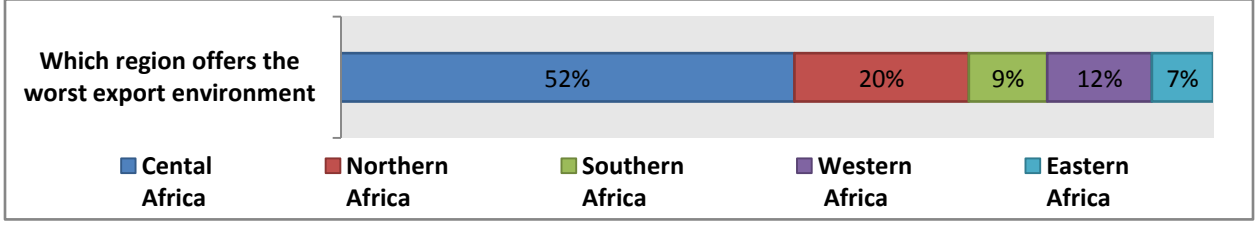
Figure 6.19: Best export environment in Africa



Source: PHD Research Bureau

According to the survey, 47% of the respondents selected Eastern Africa as the region to offer best export environment; followed by Western Africa (23%); Southern Africa (20%); Northern Africa (7%); and the least favorite Central Africa (3%).

Figure 6.20: Worst export environment in Africa



Source: PHD Research Bureau

According to the survey, 52% of the respondents find Central Africa to be the region offering the worst export environment; followed by Northern Africa (20%), Western Africa (12%), Southern Africa (9%), and Eastern Africa (7%).

6.3 Conclusion

The survey conducted by the PHD Research Bureau on barriers, quantitative and qualitative, faced by the Indian exporters in India have reaped some remarkable results, which helped in accessing the current ecosystem for exporting products in Africa.

To gather a holistic overview of the potential problems faced by the firms, ranking is conducted of various issues. Based on the survey ranking, fluctuation of export price has been selected by majority of the respondents as the top most impediment faced by the firm; followed by dollar exchange rate; dollar rate change; advance deposit; lower price by other countries; rate reduction; customs procedure; customers valuation procedure; service tax; policy import and destination port; shipping lines; low export rate; rules of origin; quality standards; anti-dumping duties; and finally least problematic issue are no barriers.

Future Outlook
Indian Exports & Vital Sectors in Africa

7 FUTURE OUTLOOK: INDIAN EXPORTS & VITAL SECTORS IN AFRICA

7.1 Introduction

The undertaken study has made a valiant attempt to forecast the probable scenario of Indian exports in African market based on the model created in the earlier chapter. The study has selected the following two methods to estimate the value of exports:

1) Adaptive Approach: Based on the past 15 years trend of Indian exports to Africa (aggregate), if the trend during 2001-2015 continues till 2021;

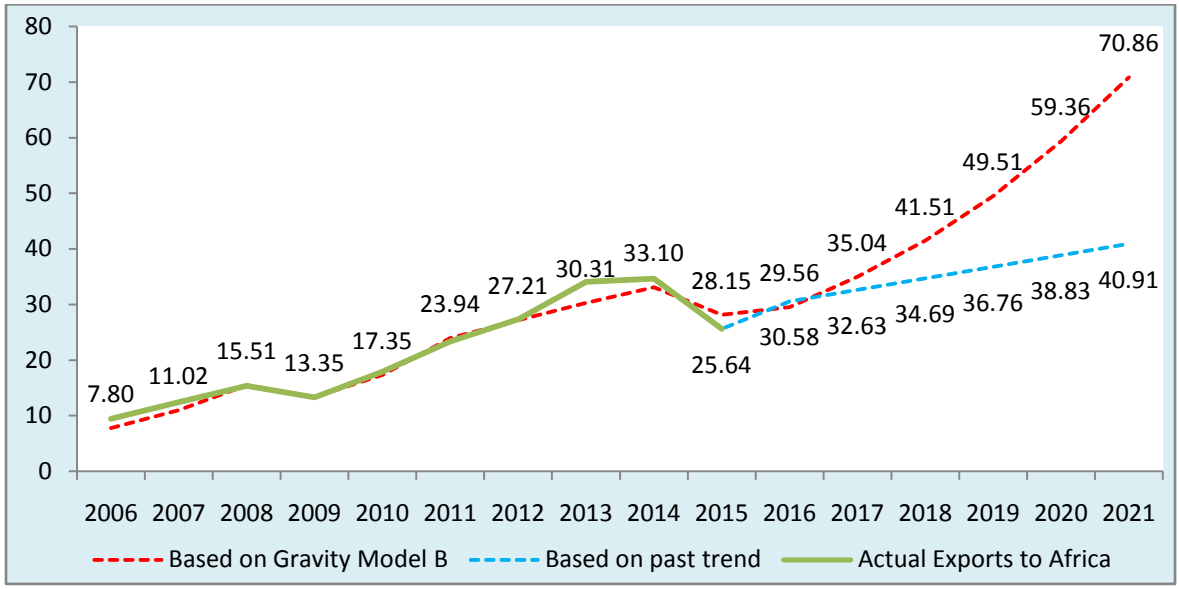
2) Rational Approach: Based on the equation estimated via Gravity *Model B*. For forecasting purpose, *Model B* has been preferred over *Model A* due to relatively higher statistically significant variables, high adjusted R^2, significant F-statistic and no-auto correlation. For the independent variables, values for GDP of India, GDP of African countries and per capita income of India and African countries have been drawn from the updated International Monetary Fund (IMF) World Economic Outlook Database for the period between 2016 and 2021.

Table 7.1: Forecasting Framework for Indian exports to Africa

Methodology	Based on past trend	Based on Gravity Model B
1. Definition	Indian exports to Africa (Y) are regressed on year (X), wherein the following power curve has exhibited the best-fit scenario. Therefore, based on the following equation, Indian exports to Africa are forecasted till 2021.	Indian exports to Africa are regressed on GDP of India (at USD current prices), GDP of African countries (at USD current prices), Distance between India and African countries) and per capita of India and Africa (in USD).
2. Forecast equation	$y = 1.572360x^{1.070412}$ here, y = value of exports x = time period	$Export_{ind,j} = antilog[-76.37 + \gamma_j + 0.64log(GDP_{ind}) + 4.07\ log(GDP_j) + 2.72\ log(Rem_{ind,j}) - 0.96\ log(PCI_{ind} * PCI_j)]$ here, Export= value of exports from India to Africa γ_j = Country effects
3. Parameters	R^2 = 90.9%	R^2 = 98%

7.2 India's exports projection in Africa till 2021

Figure 7.1: Projected export forecast from India to Africa (2016 – 2021)



Source: PHD Research Bureau

The estimated projections made by study based on the past trend reflect a lukewarm performance in the Indian exports to African countries. The projected value increases to USD 40.91 billion in 2021. Alternatively, the projected export value, based on the gravity model B, is going to propel to USD 70.86 billion in 2021.

Table 7.2: Forecasted value of imports and exports to Africa

Year	Adaptive Approach Exports (Based on Past trend)	Rational Approach Exports (Based on Gravity Model B)	Adaptive Approach Imports (Based on Past trend)
	USD Billion	USD Billion	USD Billion
2010	17.887	17.353*	23.91
2011	23.346	23.944*	31.44
2012	27.315	27.208*	37.4
2013	34.076	30.310*	31.72
2014	34.630	33.102*	36.4
2015	25.640	28.152*	29.39
2016	30.581*	29.563*	38.20*
2017	32.632*	35.039*	40.19*
2018	34.691*	41.511*	42.11*
2019	36.757*	49.513*	43.97*
2020	38.832*	59.357*	45.78*
2021	40.914*	70.858*	47.54*

Source: PHD Research Bureau; **Forecasted values*

As per the projected chart above, the green line depicts the actual exports by India to Africa between 2006 and 2015; blue line depicts the projected exports by India to Africa based on past trend (2001 – 2015); and

red line depicts the projected exports by India to Africa based on the gravity model B. Essential element of the projected chart is the symmetric nature of the estimated exports with the actual exports between 2006 to 2015. This acts as the optimal essence of the model estimated, wherein parameters are so efficiently gauged that forecasted values may see the day of the light.

Gravity model B projects an incredible export growth of Indian exports in the African markets, primarily because of the response parameter of GDP of African countries. Also, projected by IMF that Africa as a whole is going to witness a higher than moderate growth in GDP over the next few years, especially in 2017. The year 2017 will mark the revival of African GDP growth to a near high, as per the IMF World Economic Outlook 2016.

Table 7.3: Forecasted value of exports to different African Countries (USD Million)

Projection of Exports to African Countries[5] (2016 – 2021)								
	Algeria	Angola	Benin	Botswana	Burkina Faso	Burundi	Cabo Verde	Cameroon
2016	986.318	597.286	532.506	42.595	88.398	29.278	0.927	214.727
2017	1152.824	709.616	634.036	49.997	105.880	34.777	1.084	255.629
2018	1339.126	843.377	753.351	58.603	126.530	41.401	1.269	303.750
2019	1567.233	1010.181	903.358	69.323	152.576	49.670	1.498	363.948
2020	1845.042	1217.915	1087.186	82.646	185.149	59.981	1.781	438.827
2021	2155.276	1455.290	1296.875	96.631	222.238	71.893	2.093	522.813
	Central African Republic	Chad	Congo	Comoros	Congo Dem Rep	Cote d'Ivoire	Djibouti	Egypt
2016	5.892	32.051	266.112	19.515	42.057	337.873	592.689	3255.552
2017	7.138	38.813	322.191	23.224	49.977	407.383	714.858	3841.576
2018	8.614	46.061	378.807	27.636	59.510	489.027	862.418	4542.672
2019	10.407	55.819	450.500	33.194	71.687	591.805	1046.099	5422.840
2020	12.616	67.220	529.712	40.123	86.693	720.181	1272.678	6499.312
2021	15.039	79.798	622.100	47.987	103.741	865.534	1534.686	7797.194
	Eritrea	Equatorial Guinea	Ethiopia	Gabon	Gambia	Ghana	Guinea Bissau	Guinea
2016	39.855	13.214	668.937	46.959	65.945	919.353	10.626	220.284
2017	48.706	15.621	795.846	55.840	74.754	1093.132	12.599	259.785
2018	59.539	18.280	943.035	65.972	88.827	1298.709	14.911	308.422
2019	73.353	21.533	1127.189	78.533	106.497	1567.378	17.826	371.142
2020	88.156	25.413	1355.890	93.904	128.418	1899.099	21.457	449.595
2021	109.122	29.717	1616.415	110.724	153.684	2276.852	25.565	539.608
	Kenya	Lesotho	Liberia	Libya	Malawi	Madagascar	Mozambique	Mali
2016	3885.550	22.534	108.514	159.517	158.894	176.840	955.651	109.694

[5] Somalia has been excluded from the projections; North and South Sudan are clubbed together.

2017	4623.510	26.102	128.916	196.305	189.954	209.027	1107.600	131.210
2018	5531.270	30.318	154.167	233.292	224.349	248.009	1338.860	155.463
2019	6666.706	35.291	186.290	280.366	268.263	297.321	1629.180	186.798
2020	8074.821	41.346	226.765	344.691	323.606	358.848	1992.884	225.663
2021	9726.198	46.945	270.692	402.474	387.204	429.196	2667.730	270.564
	Mauritania	Mauritius	Morocco	Namibia	Niger	Nigeria	Rwanda	Sao Tome & Principe
2016	56.534	1157.418	408.503	88.454	79.000	3168.415	70.519	1.626
2017	65.132	1340.163	475.941	103.492	95.052	3884.695	83.669	1.924
2018	75.630	1545.335	554.215	121.334	114.439	4669.826	100.014	2.268
2019	89.743	1799.024	652.170	143.111	138.482	5536.490	120.526	2.720
2020	107.420	2107.234	772.642	169.400	169.141	6587.167	145.623	3.289
2021	127.163	2442.231	905.454	198.415	203.323	7771.432	174.945	3.932
	Sierra Leone	South Africa	Sudan (South + North)	Swaziland	Seychelles	Senegal	Tanzania	Togo
2016	93.082	4320.021	1385.577	33.006	53.410	423.471	2035.546	418.756
2017	107.685	5007.509	1661.894	37.949	61.625	509.316	2413.767	500.522
2018	126.720	5821.558	1978.218	43.619	71.703	610.743	2866.777	596.586
2019	150.648	6838.839	2369.527	50.611	84.270	739.823	3433.483	717.459
2020	178.703	8085.192	2838.384	59.043	99.544	901.647	4134.823	868.677
2021	211.057	9462.239	3386.328	68.216	117.065	1087.183	4938.600	1039.477
	Tunisia	Uganda	Zambia	Zimbabwe				
2016	283.908	483.660	255.622	140.729				
2017	324.843	583.782	298.140	163.695				
2018	368.734	699.220	357.451	190.747				
2019	432.193	843.365	432.312	224.235				
2020	510.641	1029.745	525.880	265.380				
2021	598.448	1225.044	634.064	311.641				

Source: PHD Research Bureau

Gravity Model B has been further utilized to determine the prospective growth in exports to different countries in Africa. The input, viz. potential GDP of countries, population and so on, for the model has been derived from IMF database.

Based on the forecast values, India will see tremendous rise in exports towards Egypt at USD 7.7 billion, Kenya at USD 8.1 billion, South Africa at USD 9.5 billion, and Tanzania at USD 5 billion by 2021. Also, countries such as Uganda, Sudan (North and South), Senegal, Mauritius, Mozambique, Ghana, Ethiopia, Djibouti, Benin and Angola among others will witness a surge in imports from India.

With rising GDP and per capita income of India and Africa, Indian exports will experience an expansion. The drivers of growth in exports such as GDP, per capita income and favorable demography will continue to accentuate the Indian export trend in Africa till 2021.

7.3 Identification of vital sectors to export in Africa

Bilateral trade between India and Africa has been analyzed using a framework of well-known trade index known as Revealed Comparative Advantage. Further, the index has been utilized to identify export categories for India in Africa which deserve significant attention based on Comparative Advantage Analysis (CAA).

Revealed comparative advantage is tool that aids in identification of products/sectors based on their advantage and disadvantage with respect to the export pattern of the world.

- **Revealed Comparative Advantage (RCA):**

$$RCA_{ij} = \frac{X_{ij} / X_i}{X_{wj} / X_w}$$

Here,
X_{ij} = Country i's export of product j
X_i = Country i's total exports
X_{wj} = World's export of product j
X_w = Total world's export

The identification procedure has also incorporated the element of Bilateral - Revealed Comparative Advantage, wherein advantage is identified focusing on the destination country.

- **Bilateral Revealed Comparative Advantage (B-RCA):**

$$BRCA_{ijk} = \frac{X_{ijk} / X_{ik}}{X_{wjk} / X_{wk}}$$

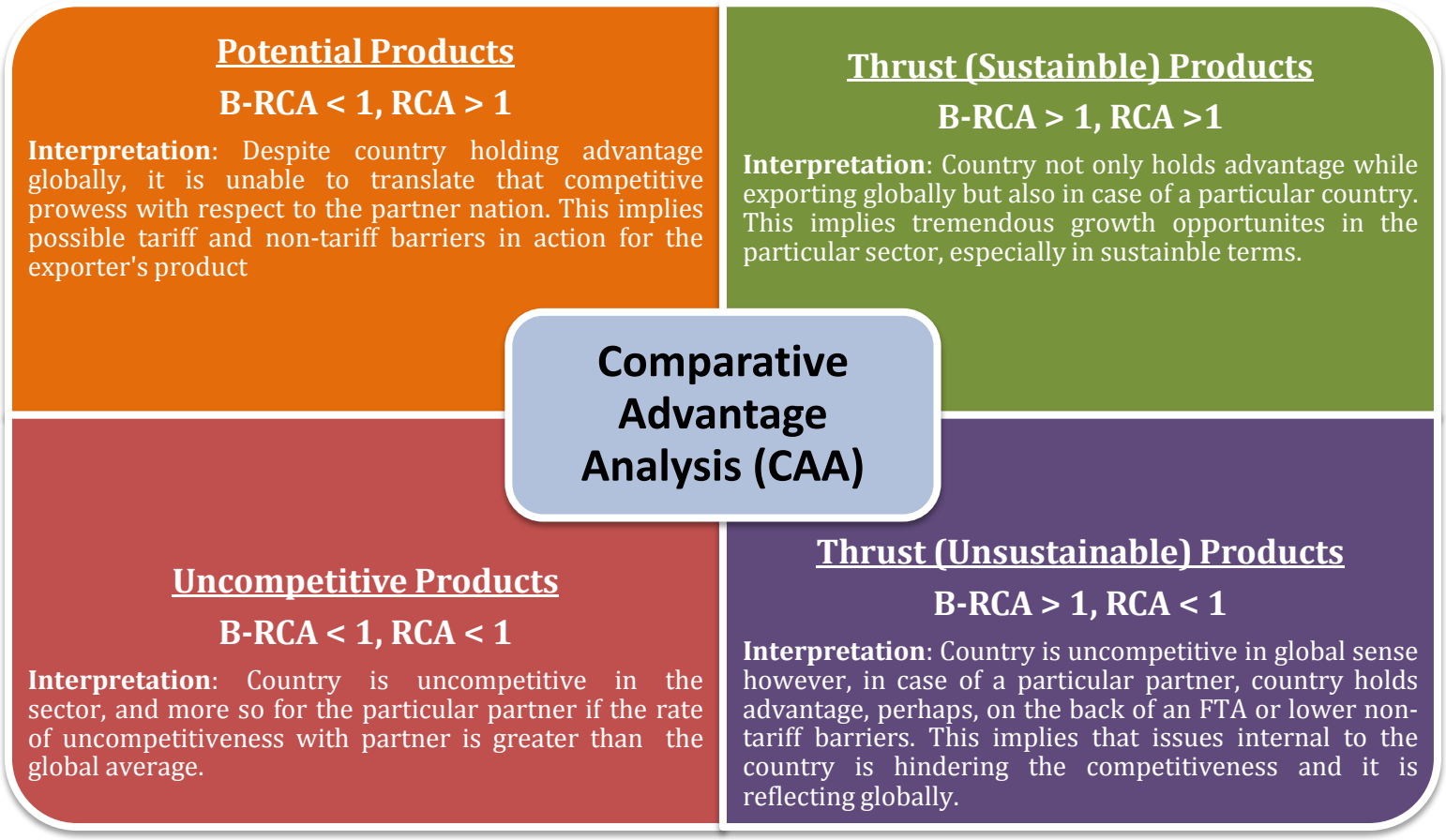
Here,
X_{ijk} = Country i's export of product j to country k
X_{ik} = Country i's total exports to country k
X_{wjk} = World's export of product j to country k
X_{wk} = Total world's export to country k

Based on the calculation of RCA and BRCA, following framework has been created to structure the list of products according to the advantage the Indian products hold in Africa's market. Based on the established framework of comparative advantage analysis below, the study has zeroed-in on sectors placed in quadrant 1, 2 and 3. Sectors positioned in quadrant 4 don't hold any advantage, both in terms of globally and with respect to the partner nation. Therefore, tables have been designed according to the level of competitiveness of Indian products in Africa, region-wise.

In the present study, sectors are identified in different regions of Africa categorized under:

1. **Thrust (sustainable), viz. RCA & B-RCA > 1;**
2. **Thrust (unsustainable), viz. RCA < 1 & B-RCA > 1; and**
3. **Potential, viz. RCA > 1 & B-RCA < 1**

Figure 7.2: Comparative Advantage Analysis Framework



7.3.1 Key exportable products to Central Africa

Table 7.4: India's key sectors in Central Africa

Sectors	Competitive Sectors in Central Africa		
	THRUST AREAS		POTENTIAL AREAS
	Sustainable	Unsustainable	
Animals & Animal Products	0202, 0306, 0307, 0501	0206	0204, 0303, 0408, 0409, 0506, 0507, 0510
Vegetable Products	0604, 0712, 0804, 0904, 0907, 0909, 0910, 1006, 1106, 1108, 1301	1206	0703, 0711, 0713, 0801, 0901, 0902, 0908, 1008, 1101, 1103, 1105, 1202, 1207, 1208, 1211, 1302, 1404
Animal Or Vegetable Fats	-	-	1503, 1504, 1508, 1515, 1516, 1518
Prepared Foodstuffs	1702, 2101, 2207	1704, 1805, 1905, 2008, 2208	1605, 1701, 1703, 2001, 2007, 2304, 2306, 2401, 2403
Mineral Products	2501, 2506, 2508, 2516, 2525, 2526	2504, 2712	2503, 2511, 2512, 2513, 2514, 2521, 2523, 2529, 2618, 2619, 2621, 2708, 2710, 2713
Chemical Products	2803, 2817, 2828, 2829, 2833, 2848, 2903, 2906, 2907, 2909, 2914, 2921, 2922, 2923, 2924, 2925,	2805, 2810, 2815, 2825, 2837, 2841, 2850, 2853, 2905, 2910, 2916, 2935, 2937, 2940, 3002, 3005,	2802, 2806, 2808, 2818, 2820, 2823, 2824, 2827, 2831, 2832, 2839, 2902, 2904, 2908, 2911, 2912, 2915, 2917, 2918, 2920, 2928, 2931, 2932, 2934,

	2927, 2933, 2936, 2939, 2941, 2942, 3003, 3004, 3204, 3213, 3503, 3605, 3808	3006, 3101, 3206, 3303, 3304, 3305, 3307, 3401, 3807, 3816	3202, 3205, 3211, 3212, 3301, 3501, 3502, 3602, 3706, 3801, 3802, 3812, 3813, 3823
Plastics & Rubber	3902, 4010, 4013, 4014	3907, 3908, 3920, 3921, 3923, 3924, 3926, 4015	3914, 4003, 4008, 4011, 4012,
Hides & Skins	4107, 4113, 4203	4304	4112, 4201, 4202, 4205
Wood & Wood Products	-	4413, 4419	4414, 4421
Wood Pulp Products	4820	4801, 4802, 4901, 4910, 4911	4823, 4906
Textiles & Textile Articles	5201, **5202**, 5205, 5208, 5211, 5212, 5403, 5407, 5408, 5515, **5808**, 5810, 6103, 6106, 6107, 6109, 6111, 6203, 6204, 6205, 6206, 6208, 6209, **6213**, 6214, 6307	5112, 5210, 5903, 5910, 5911, 6005, 6101, 6110, 6201, 6217	5003, 5006, 5007, 5103, 5105, 5204, 5206, 5209, 5303, 5305, 5307, 5308, 5309, 5310, 5402, 5503, 5504, 5505, 5509, 5510, 5511, 5512, 5514, 5516, 5605, 5607, 5608, 5609, 5701, 5702, 5703, 5705, 5802, 5803, 5809, 5908, 6104, 6105, 6108, 6114, 6117, 6207, 6211, 6216, 6301, 6302, 6303, 6304, 6305, 6309, 6310
Footwear, Headgear	6501, **6502**, 6703	-	6403, 6406, 6602
Articles Of Stone, Plaster, Cement, Asbestos	6811, 6813, 6901, 6902, 6903, 7010, 7017, 7020	6906, 6910, 7008	6802, 6803, 6812, 6814, 6907, 6908, 7011, 7014
Pearls, Precious Or Semi-Precious Stones, Metals	-	7111	7102, 7103, 7104, 7107, 7108, 7113, 7114, 7117
Base Metals & Articles Thereof	7202, 7210, 7215, 7308, 7311, 7323, 7325, 7419, 7614, 7615, 8203	7226, 7321, 7409, 7606, 8309, 8311	7201, 7203, 7207, 7208, 7209, 7220, 7221, 7222, 7223, 7303, 7305, 7306, 7307, 7318, 7319, 7326, 7401, 7403, 7405, 7415, 7418, 7601, 7603, 7616, 7801, 7901, 7903, 8101, 8201, 8204, 8205, 8215, 8305
Machinery & Mechanical Appliances	8402, 8405, 8406, 8445, 8446, 8448, 8455, 8503, 8514, 8535	8418, 8419, 8430, 8432, 8435, 8442, 8451, 8454, 8466, 8477, 8480, 8504, 8523	8404, 8410, 8437, 8444, 8468, 8474, 8545, 8546
Transportation Equipment	8701, 8702, 8706, 8711, 8714	8703, 8704, 8708, 8712	8802, 8805, 8904, 8905, 8906
Instruments – Measuring, Musical	-	9002, 9018, 9021, 9023	9028, 9033
Arms & Ammunition	-	-	9305, 9307
Miscellaneous	9601, 9602, 9608	-	9404, 9606, 9609
Works Of Art	-	9703	-

Source: PHD Research Bureau

In Central Africa, specific products from Indian sectors hold unique advantage such as table salt (2501); cotton waste (5202); braids of textile materials (5808); handkerchiefs not exceeding 60 cm (6213); and hat-shapes (6502). In comparison with other regions in Africa, the aforementioned products hold distinct advantage while exporting to Central Africa.

Furthermore, plethora of chemical products, textiles, machinery products from India hold comparative advantage in case of Central Africa.In the potential category, there is a huge list of product for Indian exporters. In case of reduction in tariffs or ease in non-tariff measures for the respective products, Indian exporters can gain ample ground in terms of market share for these products.

7.3.2 Key exportable products in Northern Africa

Table 7.5: India's key sectors in Northern Africa

Sectors	Competitive Sectors in Northern Africa		
	Thrust Areas		Potential Areas
	Sustainable	Unsustainable	
Animals & Animal Products	0202, 0306, **0409**	0508	0204, 0303, 0307, 0408, 0501, 0506, 0510
Vegetable Products	0604, 0711, 0712, **0713**, 0801, 0804, 0904, 0907, 0908, 0909, 0910, 1006, 1008, **1103**, 1106, 1108, **1202**, 1207, 1211, 1301, 1302, 1404	0603, 0802, 0810, 0811, 0813	0703, 0901, 0902, 1101, 1105, 1203, 1208
Animal Or Vegetable Fats	**1504**	1521	1508, 1515, 1516, 1518
Prepared Foodstuffs	1701, 1702, 2001, 2007, 2207, 2401	2006, 2008, 2307	1508, 1515, 1516, 1518, 1605, 1703, 2101, 2304, 2306, 2403
Mineral Products	2506, 2508, 2511, 2513, 2514, 2516, **2521**, 2525, 2526, 2621	2515, 2522, 2620, 2712	2501, 2503, 2512, 2523, 2529, 2606, 2614, 2618, 2619, 2708, 2710, 2713
Chemical Products	2806, 2813, 2818, **2820**, 2827, 2828, 2829, 2831, 2839, 2903, **2904**, 2906, 2907, 2909, 2913, 2914, 2915, **2917**, 2918, 2921, 2922, 2923, 2924, 2925, 2928, 2931, 2932, 2933, 2934, 2936, 2939, 2941, 2942, 3004, 3202, 3204, 3205, 3211, 3213, 3301, 3605, 3706, 3802, 3808, 3812, 3823	2815, 2816, 2825, 2841, 2919, 2926, 2937, 2938, 3001, 3002, 3206, 3302, 3303, 3305, 3307, 3402, 3505, 3603, 3707, 3805, 3811, 3824	2802, 2803, 2808, 2817, 2823, 2824, 2832, 2833, 2902, 2908, 2911, 2912, 2920, 2927, 3003, 3212, 3501, 3502, 3503, 3602, 3801, 3813
Plastics & Rubber	4010, **4011**, **4012**, 4013	3903, 3905, 3907, 3910, 3912, 3918, 3920, 3923, 3924, 4015	3902, 3914, 4003, 4008, 4014
Hides & Skins	4201, 4203	4304	4107, 4112, 4113, 4202, 4205
Wood & Wood Products	4421	-	4414
Wood Pulp Products	**4823**	4802	4820, 4906

Textiles & Textile Articles	**5006**, **5007**, 5103, **5105**, 5107, 5205, 5206, 5208, 5211, 5212, 5305, 5307, **5308**, 5310, 5402, 5403, 5503, 5504, 5509, 5510, 5511, 5515, 5607, **5608**, 5609, 5701, 5703, 5809, 5810, 6103, **6104**, 6105, 6107, 6109, 6111, 6114, 6117, 6203, 6204, 6205, **6207**, 6214, 6304, 6305, 6307	5106, 5112, 5113, 5306, 5404, 5406, 5513, 5804, 5806, 5903, 5910, 6002	5001, 5003, 5104, 5201, 5202, 5204, 5209, 5303, 5309, 5407, 5408, 5505, 5512, 5514, 5516, 5605, 5702, 5705, 5802, 5803, 5808, 5908, 6106, 6108, 6206, 6208, 6209, 6211, 6213, 6216, 6301, 6302, 6303, 6309, 6310
Footwear, Headgear	6501, 6703	6402, 6506	6403, 6406, 6502, 6602
Articles Of Stone, Plaster, Cement, Asbestos	6802, 6812, 6813, 6814, 6903, **6907**, 7010, 7017, 7020	6801, 6806, 7002, 7009, 7016	6803, 6811, 6901, 6902, 6908, 7011, 7014
Pearls, Precious Or Semi-Precious Stones, Metals	7103, 7117	7105, 7115	7102, 7104, 7107, 7108, 7112, 7113, 7114
Base Metals & Articles Thereof	**7201**, 7202, 7210, 7220, 7221, 7222, 7223, 7303, 7308, 7311, 7323, 7325, 7418, 7419, 7614, **7801**, **7903**, **8101**, 8110, 8203, 8204, 8305	7205, 7225, 7226, 7228, 7320, 7504, 7507, 7806, 7904, 8102, 8107, 8111, 8212	7203, 7207, 7208, 7209, 7215, 7306, 7307, 7318, 7319, 7326, 7401, 7403, 7405, 7415, 7502, 7601, 7603, 7615, 7616, 7901, 8201, 8205, 8215
Machinery & Mechanical Appliances	8402, 8404, 8444, 8445, 8446, 8448, 8455, 8545	8407, 8408, 8409, 8419, 8431, 8432, 8439, 8460, 8479, 8482, 8507, 8511, 8512, 8518, 8539	8405, 8406, 8410, 8437, 8468, 8474, 8503, 8514, 8535, 8546
Transportation Equipment	8701, 8706, 8711, 8714	8703, 8708	8702, 8802, 8805, 8904, 8905, 8906
Instruments – Measuring, Musical	9033	9001, 9002, 9018, 9020, 9021, 9023, 9029, 9105, 9110, 9111	9028
Arms & Ammunition	-	-	9305, 9307
Miscellaneous	9601, 9602, 9608, **9609**	-	9404, 9606
Works Of Art	-	9701	

Source: PHD Research Bureau

In Northern Africa, products highlighted in red hold distinct advantage for Indian exporters. These include Natural honey (0409); dried leguminous vegetables (0713); fats and oils of fish and marine animals (1504); manganese oxides (2820); silk yarn spun from silk waste (5006) among other products. Conversely, there is a substantial potential list as well to export to Northern Africa, as illustrated in table 7.5 above.

7.3.3 Key exportable products in Southern Africa

Table 7.6: India's key sectors in Southern Africa

Sectors	Competitive Sectors in Southern Africa	
	Thrust Areas	Potential Areas

	Sustainable	Unsustainable	
Animals & Animal Products	0202, 0306, 0307, 0408, **0507**	-	0204, 0303, 0409, 0501, 0506, 0510
Vegetable Products	0604, 0712, 0801, 0904, 0907, 0908, 0909, 0910, 1006, 1008, 1106, 1108, 1207, 1211, 1302, 1404	0814, 0906	0703, 0711, 0713, 0804, 0901, 0902, 1101, 1103, 1105, 1202, 1208, 1301
Animal Or Vegetable Fats	**1515**, **1516**, 1518	-	1503, 1504, 1508
Prepared Foodstuffs	**1605**, 1702, **1703**, 2101, 2401, 2403	1905, 2004, 2008	1701, 2001, 2007, 2207, 2304, 2305, 2306
Mineral Products	2506, 2511, 2513, 2514, 2516, 2525, 2526, 2710, 2713	2504, 2517	2501, 2503, 2508, 2512, 2521, 2523, 2529, 2606, 2614, 2618, 2619, 2621
Chemical Products	**2802**, 2813, **2824**, 2827, 2828, 2831, **2832**, 2833, 2839, 2903, 2906, 2907, 2913, 2914, 2915, 2920, 2921, 2922, 2923, 2924, 2928, 2931, 2932, 2933, 2934, 2939, 2942, 3003, 3004, 3202, 3204, 3205, 3211, 3301, 3503, 3605, 3706, 3802, 3808, 3823	2811, 2841, 2853, 2935, 3006, 3206, 3306, 3810, 3819	2803, 2806, 2808, 2817, 2818, 2823, 2829, 2848, 2902, 2904, 2908, 2909, 2911, 2912, 2917, 2918, 2925, 2927, 2936, 2941, 3212, 3213, 3501, 3502, 3602, 3801, 3812, 3813
Plastics & Rubber	4003, 4008, 4010, 4013, 4014	3918, 3920, 3921, 4005	3902, 3914, 4011, 4012
Hides & Skins	4107, 4112, 4113, 4201, 4203	4114	4202, 4205
Wood & Wood Products	**4414**, 4421	4501	-
Wood Pulp Products	4820	4811, 4822, 4905	4823, 4906
Textiles & Textile Articles	5103, 5107, **5204**, 5205, 5206, 5208, 5209, 5211, 5212, 5305, 5307, **5309**, 5310, 5402, 5509, 5510, 5515, 5607, 5609, 5701, **5702**, 5703, **5705**, 5802, **5803**, 5810, 5908, 6105 6107, **6108**, 6109, 6114, 6117, 6203, 6204, 6205, 6206, 6208, 6211, 6214, **6216**, **6302**, 6304, 6305, 6307, **6310**	5112, 5113, 5306, 5401, 5606, 5903, 6002	5001, 5003, 5006, 5007, 5104, 5105, 5201, 5202, 5303, 5308, 5403, 5407, 5408, 5503, 5504, 5505, 5511, 5512, 5514, 5516, 5605, 5608, 5808, 5809, 6103, 6104, 6106, 6111, 6207, 6209, 6213, 6301, 6303, 6309
Footwear, Headgear	6403, **6406**	-	6501, 6502, 6602, 6703
Articles Of Stone, Plaster, Cement, Asbestos	6802, 6813, 6814, 6903, 7010, 7017, 7020	6801, 6914, 7008	6803, 6811, 6812, 6901, 6902, 6907, 6908, 7011, 7014
Pearls, Precious Or Semi-Precious Stones, Metals	7103, 7107, **7113**	7101	7102, 7104, 7108, 7112, 7114, 7117
Base Metals & Articles Thereof	7220, 7221, 7222, 7223, 7303, **7306**, 7311, 7323,	7205, 7211, 7216, 7310, 7312, 7413, 7505, 7507,	7201, 7202, 7203, 7207, 7208, 7209, 7210, 7215, 7305, 7307,

	7325, 7418, 7419, 7614, 7615, 7616, 8110, **8201**, 8204, 8305	7508, 7605, 7612, 7613, 7804, 8003, 8207, 8212, 8302, 8307	7308, 7318, 7319, 7326, 7401, 7403, 7405, 7415, 7502, 7601, 7603, 7801, 7901, 7903, 8101, 8203, 8205, 8215
Machinery & Mechanical Appliances	8404, 8446, 8455, 8503, 8514, 8535, 8545, 8546	8414, 8440, 8449, 8461, 8480, 8482, 8523, 8538	8402, 8405, 8406, 8410, 8437, 8444, 8445, 8448, 8468, 8474
Transportation Equipment	8701, 8706, **8905**, **8906**	8608, 8703	8702, 8711, 8714, 8802, 8805, 8904
Instruments – Measuring, Musical	-	9001, 9015, 9023, 9024, 9026	9028, 9033
Arms &Ammunition	**9305**, 9307	-	-
Miscellaneous	9601, 9602	9506, 9604	9404, 9606, 9608, 9609
Works Of Art	-	-	-

Source: PHD Research Bureau

Products such as fixed vegetable fats and oils (1515); animal oils and fats (1516); lead oxides, red lead and orange lead (2824); wooden frames (4414); articles of jewellery and parts thereof (7113); hand tools (8201); light vessels, fire floats, dredgers (8905) among others.

7.3.4 Key exportable products in Eastern Africa

Table 7.7: India's key sectors in Eastern Africa

Sectors	Competitive Sectors in Eastern Africa		
	Thrust Areas		Potential Areas
	Sustainable	Unsustainable	
Animals & Animal Products	0202, 0306, 0408, 0501	0505	0204, 0303, 0307, 0409, 0506, 0507, 0510
Vegetable Products	**0703**, 0711, 0801, 0904, 0908, 0909, 1006, **1101**, **1105**, 1106, 1108, **1203**, 1301	1104, 1204	0604, 0712, 0713, 0804, 0901, 0902, 0907, 0910, 1008, 1103, 1202, 1207, 1208, 1211, 1302, 1404
Animal Or Vegetable Fats	-	1505, 1514	1503, 1504, 1508, 1515, 1516, 1518
Prepared Foodstuffs	1701, 1702, 2001, 2007, 2207, **2304**, 2403	1704, 1905, 2008, 2303	1605, 1703, 2101, 2305, 2306, 2401
Mineral Products	2506, 2508, 2514, 2516, 2526, **2614**, 2621, 2710, 2713	2502, 2507	2501, 2503, 2511, 2512, 2513, 2521, 2523, 2525, 2529, 2606, 2618, 2619, 2708
Chemical Products	2806, **2808**, 2817, 2818, 2828, 2829, 2833, 2839, 2848, **2902**, 2906, 2907, 2909, 2914, 2915, 2925, 2927, 2928, 2933, 2934, 2936, 2939, 2941, 2942, 3003, 3004, 3204, 3205, 3211, 3212, 3213, 3301, 3605, 3706, 3802, 3812	2810, 2815, 2901, 2916, 2935, 3001, 3002, 3006, 3101, 3206, 3307, 3603, 3806, 3809, 3810, 3821	2802, 2803, 2813, 2820, 2823, 2824, 2827, 2831, 2832, 2903, 2904, 2908, 2911, 2912, 2913, 2917, 2918, 2920, 2921, 2922, 2923, 2924, 2931, 2932, 3202, 3501, 3502, 3503, 3602, 3801, 3808, 3813, 3823
Plastics & Rubber	3914, 4003, 4008, 4013, 4014	3918, 3919, 3920, 3923,	3902, 4010, 4011, 4012

		4005	
Hides & Skins	4112		4107, 4113, 4201, 4202, 4203, 4205
Wood & Wood Products	-	4405, 4502	4414, 4421
Wood Pulp Products	4820	4802, 4901, 4905, 4909, 4910, 4911	4823, 4906
Textiles & Textile Articles	5201, **5205**, 5206, 5208, 5209, 5212, 5305, 5307, 5310, 5402, 5407, 5408, 5503, 5505, 5509, 5510, 5515, 5701, 5802, 5809, 5810, 5908, 6105, 6109, 6114, 6117, 6204, 6206, 6208, 6209, 6211, 6214, 6305, 6307	5210, 5306, 5406, 5606, 5903, 5905, 6110, 6217	5003, 5006, 5007, 5103, 5104, 5105, 5107, 5202, 5204, 5211, 5303, 5308, 5309, 5403, 5504, 5511, 5512, 5514, 5516, 5605, 5607, 5608, 5609, 5702, 5703, 5705, 5803, 5808, 6103, 6104, 6106, 6107, 6108, 6111, 6203, 6205, 6207, 6213, 6216, 6301, 6302 6303, 6304, 6309, 6310
Footwear, Headgear	6403, 6501	6402, 6507	6406, 6502, 6602, 6703
Articles Of Stone, Plaster, Cement, Asbestos	**6803**, 6811, 6812, 6813, 6902, 6903, 7010	-	6802, 6814, 6901, 6907, 6908, 7011, 7014, 7017, 7020
Pearls, Precious Or Semi-Precious Stones, Metals	7103, 7117	7111	7102, 7104, 7107, 7108, 7112, 7113, 7114
Base Metals & Articles Thereof	7202, 7210, 7215, 7305, 7311, 7325, 7405, 7419, 7603, 7614, 7615, 7901, 8203	7211, 7218, 7226, 7409, 7505, 7508, 7605, 7606, 7607, 7612, 7804, 8007, 8104, 8309	7201, 7203, 7207, 7208, 7209, 7220, 7221, 7222, 7223, 7303, 7306, 7307, 7308, 7318, 7319, 7323, 7326, 7401, 7403, 7415, 7418, 7502, 7601, 7616, 7801, 7903, 8101, 8110, 8201, 8204, 8205, 8215, 8305
Machinery & Mechanical Appliances	8402, 8406, 8446, 8448, 8455, 8514, 8535	8419, 8423, 8432, 8434, 8435, 8436, 8438, 8439, 8440, 8442, 8454, 8458, 8477, 8480, 8504, 8518, 8538	8404, 8405, 8410, 8437, 8444, 8445, 8468, 8474, 8503, 8545, 8546
Transportation Equipment	8706, 8711, 8714	8606, 8712	8701, 8702, 8802, 8805, 8904, 8905, 8906
Instruments – Measuring, Musical	9033	9001, 9002, 9016, 9021, 9023, 9025	9028
Arms & Ammunition	9307	9306	9305
Miscellaneous	9602, 9608	9402	9404, 9601, 9606, 9609
Works Of Art	-	9703	-

Source: PHD Research Bureau

Indian exporters can focus on certain vegetable products, prepared foodstuffs, mineral products, chemical products and textile products to export to Eastern Africa. The products highlighted in red hold distinct advantage for India to export to Eastern Africa specifically.

7.3.5 Key exportable products in Western Africa

Table 7.8: India's key sectors in Western Africa

Sectors	Competitive Sectors in Western Africa		
	Thrust Areas		Potential Areas
	Sustainable	Unsustainable	
Animals & Animal Products	0202, 0408, 0501	0407	0204, 0303, 0306, 0307, 0409, 0506, 0507, 0510
Vegetable Products	0604, 0712, 0904, 0907, 0908, 0909, 0910, 1006, 1108, 1301	0810, 0814, 1204	0703, 0711, 0713, 0801, 0804, 0901, 0902, 1008, 1101, 1103, 1105, 1106, 1202, 1203, 1207, 1208, 1211, 1302, 1404
Animal Or Vegetable Fats	1518	1520	1503, 1504, 1508, 1515, 1516
Prepared Foodstuffs	1702, 2001, 2101, 2207	1704, 1905, 2008, 2208	1605, 1701, 1703, 2007, 2304, 2305, 2306, 2401, 2403
Mineral Products	2506, 2508, 2513, 2514, 2516, 2525, 2526, **2606**	2502, 2507, 2519, 2620, 2704, 2712	2501, 2503, 2511, 2512, 2521, 2523, 2529, 2618, 2619, 2621, 2708, 2710, 2713
Chemical Products	2803, 2806, 2817, 2818, **2823**, 2828, 2829 2839, 2848, 2903, 2906, 2909, 2915, 2918, 2920, 2921, 2923, 2925, 2928, 2931, 2933, 2939, 2941, 2942, 3003, 3004, 3202, 3204, 3205, 3211, 3212, 3213, 3301, **3502**, 3503, 3605, 3706, 3802, 3812, 3823	2801, 2805, 2810, 2811, 2816, 2819, 2846, 2850, 2853, 2905, 2916, 2919, 2930, 2935, 2938, 3002, 3006, 3206, 3215, 3307, 3705, 3805, 3806, 3810, 3816, 3819, 3821	2802, 2808, 2813, 2820, 2824, 2827, 2831, 2832, 2833, 2902, 2904, 2907, 2908, 2911, 2912, 2913, 2914, 2917, 2922, 2924, 2927, 2932, 2934, 2936, 3501 3602, 3801, 3808, 3813
Plastics & Rubber	3902, 3914, 4013, 4014	3903, 3905, 3906, 3908, 3909, 3910, 3920, 3921, 3923, 3924, 3926, 4016, 4017	4003, 4008, 4010, 4011, 4012
Hides & Skins	-	4304	4107, 4112, 4113, 4201, 4202, 4203, 4205
Wood & Wood Products	-	4502	4414, 4421
Wood Pulp Products	4820	4802, 4806, 4821, 4901, 4903, 4905, 4909	4823, 4906
Textiles & Textile Articles	5205, 5208, 5209, 5212, 5307, 5310, 5407, 5504, 5509, 5511, **5514**, 5515, 5607, 5701, 5802, 5810, 5908, 6105, 6106, 6109, 6111, 6114, 6117, 6203, 6204, 6205, 6206, 6208, 6209, 6211, 6214, 6305, 6307	5207, 5901, 5903, 6217	5001, 5003, 5006, 5007, 5103, 5105, 5107, 5201, 5202, 5204, 5206, 5211, 5303, 5305, 5308, 5309, 5402, 5403, 5408, 5503, 5505, 5510, 5512, 5516, 5605, 5608, 5609, 5702, 5703, 5705, 5803, 5808, 5809, 6103, 6104, 6107, 6108, 6207, 6213, 6216, 6301, 6302, 6303, 6304, 6309, 6310
Footwear, Headgear	6403, 6501	-	6406, 6502, 6602, 6703
Articles Of Stone,	6802, 6812, 6813, 6814, 6901, 6902, 6903, 7010,	6801, 6804, 6910, 7015	6803, 6811, 6907, 6908, 7020

Plaster, Cement, Asbestos	**7011**, **7014**, 7017		
Pearls, Precious Or Semi-Precious - Stones, Metals	7103, 7107, 7117	-	7102, 7104, 7108, 7112, 7113, 7114
Base Metals & Articles Thereof	7202, **7209**, 7210, 7221, 7308, 7311, **7318**, 7323, 7325, **7403**, 7405, **7415**, 7419, **7601**, 7603, 7614, 7615, 7616, 7901, 8110, 8203, 8204, **8215**	7224, 7225, 7229, 7407, 7409, 7413, 7505, 7606, 7607, 7608, 7804, 7806, 8001, 8212, 8309	7201, 7203, 7207, 7208, 7215, 7220, 7222, 7223, 7303, 7305, 7306, 7307, 7319, 7326, 7418, 7502, 7801, 7903, 8101, 8201, 8205, 8305
Machinery & Mechanical Appliances	8402, 8404, 8405, 8406, **8410**, **8437**, 8444, 8445, 8446, 8448, 8455, 8514, 8535, 8545, 8546	8419, 8422, 8423, 8432, 8433, 8436, 8438, 8439, 8440, 8441, 8442, 8449, 8450, 8454, 8458, 8460, 8461, 8462, 8463, 8466, 8477, 8480, 8504, 8505, 8507, 8509, 8518, 8523, 8532, 8533, 8537, 8538, 8544, 8547	8468, 8474, 8503
Transportation Equipment	8702, 8706, 8711, 8714	8703, 8707, 8712	8701, 8802, 8805, 8904, 8905, 8906
Instruments – Measuring, Musical	**9028**, 9033	9001, 9002, 9011, 9018, 9021, 9023, 9024, 9032, 9114	-
Arms & Ammunition	-	-	9305, 9307
Miscellaneous	9602, 9608	-	9404, 9601, 9606, 9609
Works Of Art	-	-	-

Source: PHD Research Bureau

In Western Africa, Indian exporters have strengthened their position in case of products listed under Thrust (sustainable) and potential areas. Within Thrust (sustainable) list, certain Indian products hold unique advantage in Western Africa compared to the rest of the regions in Africa. These products include Aluminum ores and concentrates (2606); Titanium oxides (2823); Albumins, including concentrates of two or more whey proteins containing by weight >80% (3502); Woven fabrics containing predominantly, but < 85% synthetic staple fibres (5514); Glass envelopes (7011); signaling glassware and optical elements of glass, not optically worked (7014); flat rolled products of iron or alloy steel (width >=600 mm) (7209); screw, bolts, nuts, etc (7318), as illustrated in Table 7.8.

Furthermore, there is an inordinate potential list as well in case Indian exports to Western Africa. To bolster exports in Western Africa in the medium to long run, India needs to tackle and remove the export narrowing barriers especially in case of Western Africa. Additionally, the Thrust (Unsustainable) list needs attention as exports from India stands to lose their competitive edge in Western Africa in the medium to long run.

8 CONCLUSIONS

India and Africa rapport go back in time to the ancient civilizations, especially the ties between Nile and Indus valley. Presently, India holds a multifaceted and deep relationship with the continent. India had a significant role in African continent including the human movement from India to Africa, especially in East Africa.

On the macroeconomic front, Africa changed gears in economic growth during the last 15 years. Although the growth felt turbulence due to negative externalities associated with weakness in the global economy and plummet in prices of key commodities, domestic demand, improved supply conditions, prudent macroeconomic management and favourable external financial flows provided the much necessary cushion as well as the impetus.

To propel the African economy, monetary policy vision remained diverged as countries faced differential inflationary and currency pressures. Quantitative tightening monetary policies were pursued in countries where current accounts and exchange rates came under pressure and imported inflation increased, perhaps, due to beggar-thy-neighbour policy being pursued across the globe. On the fiscal front, governments across Africa followed prudent fiscal policies to curb the intensified and rising fiscal pressure; measures were taken to limit spending and broaden revenue base.

To develop a prospective roadmap for Indian exports in the African market, the determinant analysis revealed various factors such as GDP, distance and their response to Indian exports. It was quite evident from the gravity framework that Indian exports are highly and significantly responsive towards alterations in GDP of India, GDP of African countries, the distance between India and African countries, and Per capita income of India and African countries. As compared to Indian GDP, response elasticity of African countries' GDP bore more positive results for Indian exports. In the case of distance, the coefficient held a negative value indicating that relatively higher Indian exports to African countries with lower distance. However, remoteness (used as a fungible variable for distance in Fixed Effect Model) viz. income-weighted distance, bore positive coefficient.

Based on the country effects in Fixed effect Model, various countries in Africa registered positive effect on Indian exports over time, including Benin, Comoros, Congo, Djibouti, Egypt, Eritrea, Gambia, Kenya, Liberia, Libya, Mauritius, Mozambique, Namibia, Sao Tome & Principe, Seychelles, Sudan (North + South), Swaziland, Tanzania, Togo, and Uganda. Conversely, certain countries exhibited negative traits for Indian exports such as Algeria, Angola, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Cote d'Ivoire, Equatorial Guinea, Ethiopia, Gabon, Ghana, Guinea, Guinea Bissau, Lesotho, Madagascar, Malawi, Mali, Mauritania, Morocco, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Tunisia, Zambia, and Zimbabwe.

On a positive note, both Indian GDP and African GDP bear propelling force for Indian exports. Notwithstanding the positive impact of GDP on Indian exports, there lies mixed response for Indian exports

by different countries in Africa. In a nutshell, over the years, selected variables have significantly impacted Indian exports.

The comprehensive survey conducted on the barriers faced by the Indian exporters in Africa also unveiled some startling results. Among the major impediments encountered by the Indian exporters in the African market, fluctuating exports prices; lower level of transparency in Africa's regulations; custom clearances, classification, and procedures; and competition and licensing norms stood out as the most severe and trade reducing. Also, it was disclosed by a majority of the respondents that the overall degree of tariff faced by their products in African market has been moderate. However, the majority also responded that the trend in general barriers in African market has remained same and there hasn't been much improvement compared to the early 2000s. A greater portion of the survey response revealed that criterion of rules of origin, countervailing duty, advanced deposit requirement, and variable import levies acted as other associated charges, other than the tariff, that affected the firm's export in Africa. Though not trade reducing, Sanitary and Phytosanitary (SPS) measures pertaining to plant, animal, and human health are found to be stringent by the majority of the survey respondents. Similarly, packaging and labeling, and safety regulations were reported as highly stringent under the technical barriers to trade (TBT) norms established in Africa.

The overall past experience of Indian firms in Africa, reportedly, have been extending and ameliorating. However, certain areas were highlighted by majority of the firms were trade debilitating such as cases of rejection without informing, and friction with the authorities. Nonetheless, around 92% of the respondents reported they had an overall excellent experience while exporting to African countries in the past. On the trade policy front imposed in Africa, majority of the respondents found the taxation policy, subsidies to be expediting towards Indian exports into Africa. Also, majority reported that the government monopolies were not negatively impacting their product's competitiveness in Africa. Conversely, some of the trade policies such as competition policies, licensing requirements for foreign firms, preferential treatment towards products of other countries and preferential treatment to locals held immense repercussions for the Indian products. The level of transparency turned out to be on the slightly on the lower side, especially in the case of enquiry points, customs procedure, accessibility of laws, and changes in regulation, as reported by the majority in the survey. Another key area evident from the survey has been the ample assistance garnered by Indian firms from the Indian government in form of short-term credits, pre-shipment finance, and financial support on FOB.

Shifting on to the financial implication of exporting to Africa revealed that the expected financial cost to comply with the non-tariff measures imposed in Africa is above INR 5 lakh, as per the survey results. In addition, the bulk of the respondents found the legal cost and technical investment to be less than INR 25 lakh each. Eastern Africa has been chosen by the majority of the survey respondents that holds the best export environment in Africa, followed by Western Africa. According to a ranking of potential problems faced by the surveyees, while exporting to the African market, fluctuation in export price and exchange rate ranked the topmost difficult issues whereas quality standards and anti-dumping duties ranked as the least-most barriers. The survey results boiled down to slow but gradual reduction in the degree of various barriers imposed on Indian exports in Africa. Notably, the barriers are heterogeneous in nature and different in scope by different nations in Africa.

The study has made an attempt to project the volume of exports to Africa, which is expected to touch USD 70 billion in 2021. In the coming years, India will see tremendous rise in exports towards Egypt at USD 7.7 billion, Kenya at USD 8.1 billion, South Africa at USD 9.5 billion, and Tanzania at USD 5 billion by 2021[6]. Also, countries such as Uganda, Sudan (North and South), Senegal, Mauritius, Mozambique, Ghana, Ethiopia, Djibouti, Benin and Angola among others will witness a surge in imports from India.

Based on the comparative advantage analysis, various thrust (sustainable) and potential products are identified for different regions in Africa where India holds tremendous advantage. Sectors include mineral products, textiles and apparels, footwear, chemical, plastics and rubber products among others.

[6] As per the projection estimates from the Gravity Model

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Disclaimer

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