Structural Transformation and Economic Diversification in West African Countries

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In the history of modern trade theory, the capitalized countries set up ridiculous pretensions as specialization for being an industrialized country. Thus, well-known words according to their idea is “Africa has a strong comparative advantage in natural resources, so, they should specialize on them.” But today, new theories on over-specialization are to keep away commodity dependent countries from specialization. As mentioned above, there are many new concepts which are not available for Africa continent. In this article, new concepts such as Natural Curse Arguments (paradox of plenty), Dutch Disease, Immiserising Growth, windfall gain argument and over-specialization were discussed.

Key words: Natural Curse Arguments, Dutch Disease, Immiserising Growth, windfall gain argument, over-specialization

INTRODUCTION

Former U.S. President William J. Clinton: “With … [its] vast human and natural resources, a revitalized Nigeria can be the economic and political anchor of West Africa…” From remarks on signing of a joint declaration with Nigerian President Obasanjo, August 26, 2000. (U.S. Printing Office, 2000) USA is oil importer country. Nigeria is a main trade partner of USA in oil.

Sheik Ahmed Yamani, former Oil Minister of Saudi Arabia: “All in all, I wish we had discovered water.” (Ross, 1999). Saudi Arabia is oil exporter country.

Which one is correct between above statements. In the history of modern trade theory, the capitalized countries set up ridiculous pretensions as specialization for being an industrialized country. This concept in literature which is created by Adam Smith, David Ricardo and Heckscher-Ohlin was recognized by poor countries to be supposed to reach rich developed countries. Thus, well-known words according to their idea is “Africa has a strong comparative advantage in natural resources, thus, they should specialize on natural resources.” But today, new theories on over-specialization is to keep away commodity dependent countries from aim of specialization. As mentioned above, there were many new concepts which were not available for African economies except South Africa. Meanwhile the new concepts to explain the current Africa’s issues are Natural Curse Arguments (paradox of plenty), Dutch Disease, Immiserising Growth, windfall gain argument and over-specialization.
Especially, sub-Saharan countries have no long historical trade experience to cope with Europeans. Their trade history has started with their self-determination after their independency. And after 1960s Africans have begun to produce and sell their own products to rest of the world. Owing to minimal business formation, they did not have enough experience to make trade, especially international trade. They used to run the trade theories which are created by developed countries, Europe and USA. Europe recommended only one concept ‘Specialization’. But it was not available for Africa. If you look at last four decade, there is no any significant improvement in this continent. Most of them remain at the same point called inception. Therefore, it was called Immiserising Growth (IG) which means by producing more you become poor, poorer and poorest. In consequence of this terminology, we examined diversification and structural transformation to expose the problems and offer the solutions.

The main aim of economists is to save developing countries from being poverty. Economists are supposed to develop new concepts to realize developing countries’ future plan as being among developed countries with their economic power. African commodities are locomotive for Developed Countries. Thus, commodity dependent countries are too good for their current situation. Inversely they produce more and become poorer. Because, commodity depended countries are price taker. Thus, how they could become developed countries. How could they reach their counsel of perfection being among developed countries.

In literature, there are many theories which are not available and suitable for African economies. Economists examine them and findings were different from theories. Thus, they were called as paradox, disease or curse as Dutch Disease or Natural Curse.

African countries have an opportunity to raise economic transformation and to address poverty and inequality with natural resources. They can capitalize on their own resource endowments and high international commodity prices. This paper argues that the deindustrialization of many African economies for decades was the result of well-known theories as specialization.

For decades, commodities have shaped Africa’s economies. It can be called negative or positive effects. Up to the 1960s and 1970s, the economists suggested to developing economies only one concept; Specialization. After becoming independent countries, they increase their production by specializing on relative primary products. Thus, the market price of products decreases in international areas. Consequently, their revenue decline too. This situation is called Immiserising Growth by Bhagwati (1958). The other concept called Dutch Disease (Corden & Neary, 1977) is an economic phenomenon in which the revenues from natural resource exports damage a nation’s productive economic sectors by causing an increase of the real exchange rate and wage. Dutch disease makes tradable sectors less competitive in world markets. Absent currency manipulation or a currency peg, appreciation of the currency as imports become cheaper can injure other sectors, leading to a compensating unfavorable balance of trade. Greater dependence on commodity revenue leaves the economy vulnerable to price changes in the natural resource in international market and demolishes the domestic market.

Other concept on African continent is windfall profit or windfall gain is a type of income that is unexpected or unforeseen. But in international market, price takers expect the price from consumers. For a small economy model, it is not possible to affect price of products on which they specialize. So, the windfall gain will be captured by developed countries that demand and consume natural resources.

**STRUCTURAL TRANSFORMATION AND DIVERSIFICATION**
Two key patterns of the development process are Structural Transformation and Diversification. Structural transformation is reallocation of resources to more productive activities; increasing importance of manufacturing and services in GDP changes in sectorial shares. Structural transformation towards more productive activities and opportunities of employment is closely linked with a strong natural-resource sector (NRS). There are a four-layer policy approach (United Nations Economic Commission for Africa, 2013) to promote Africa’s natural resources for structural transformation:

i. To establish general framework conditions for structural transformation such as education, infrastructure and access to sufficiently large, regional markets;
ii. To establish specific conditions required for natural resource sectors to thrive;
iii. To optimize the revenues from natural resources and invest them strategically to develop structural transformation;
iv. To address structural transformation directly by rising agricultural productivity and enabling economic linkages between the natural-resource sector and the economy as a whole.

The commodities have shaped Africa’s economic growth. In recent years, commodity prices tumbled by starting from oil. Many economists feared the future of Africa. For decades the Africa continent has been worryingly dependent on commodities to power economic growth and development. Because of low prices, it is not possible to realize Structural transformation.

As one of Africa’s major natural resources, oils are helping transform Africa and the lives of its people. In particular, Nigeria in West Africa is using the revenue from oil to create wealth for himself. GDP of Nigeria in 1980 was 10 billion dollars and Agriculture sector share in GDP was 28 percent. For two decade, the proportion was approximately fixed on the same ratio, while the GDP reach to 230 billion US dollars in 2010. So, we conclude that Nigeria will realize its structural transformation by major natural resources’ revenue. Oil provides a significant economic contribution to Nigeria.

The Nigerian economy is the largest economy in West Africa and the second largest in Sub Saharan Africa which is oriented toward the production of agricultural products and crude oil. Agriculture accounts for nearly 31 % of the GDP, 70 % of employment but contributes only 2.5 % of export income in 2012. Crude oil and natural gas account for about 15% of GDP, 92% of export income and 79% of government revenue in 2012.

Figure 1: Structural Transformation of Nigeria between 1970-2012

![Figure 1: Structural Transformation of Nigeria between 1970-2012](http://unctad.org/en/pages/Statistics.aspx)

The oil trade (values of petroleum exports) contributes nearly 95 billion US dollars in 2012 to Nigeria. It is helping the Nigeria to implement government planning on economy. Implementation stages which are called Structural Transformation processes are (United Nations Economic Commission for Africa, 2013:163);

A. Macroeconomic Management
B. Consolidating Democracy
C. Diversifying the Nigerian Economy
D. Boosting Agricultural Production
E. Fostering Industrial Development
F. Addressing the Major Infrastructure Gap
G. Supportive Financing
H. Improving the Business and Investment Climate

In material issue is Diversification in process above for African economy. Diversifying African economies is not an easy task. One of the key challenges is how to overcome over-specialization. Diversification includes the increase in the number of goods produced/exported and quality upgrading measured by their unit value Horizontal and vertical diversification. Diversification is shift of resources from agricultural sectors to manufacturing and services (Imbs & Wacziarg, 2003). This is the characteristic transformation process from developing to developed ones. But today, there is a new concept as a turning point for being developed for developing countries. Developing ones passed the agriculture phase by raw materials as mining and oil. Raw materials simplify to capitalize them to reach Developed countries. It is called as commodity-driven growth or commodity based industrialization. The wealth (capital) has come from raw materials. Industrializing, economic transformation and jobs is important. Thus commodity-based industrialization can provide a generator of growth for the Africa, reducing its marginalization in the world economy and enhancing its flexibility to shocks (United Nations Economic Commission, 2013).

Economic diversification is crucial to Africa’ long-term economic growth. Furthermore, many Natural resource-rich countries remain heavily depend on revenues generated by mining, oil production, threatening their chances for sustainable growth.

Economic Diversification means when the country has incomes which comes from many different sources that are not directly related to each other.

For instance for a weakly diversified economies are Saudi Arabia, Nigeria and Angola. A main part of their income depends on oil which means that their living standards fluctuates in correlation with the price of oil, wildly.

The USA economy is a diversified economy. Because, USA gets its revenue from different types of economic activities including agricultural products and financial services and manufacturing.

For instance in 2008, global crisis worked through demand shocks and price movements, especially the free fall of main commodities such as oil. Poor export diversification in products\(^1\) and destinations\(^2\) renders the whole continent particularly vulnerable to external shocks, as summarized by the collapse of export revenues suffered by oil exporters in 2009 (United Nations Economic Commission for Africa, 2013).

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\(^1\) About two thirds of Africa’s exports were made up of primary commodities in 2011
\(^2\) In 2011, more than half Africa’s total exports were still directed towards Europe and the United States (UNCTADStat).
Economic Commission, 2013). A barrel of crude oil was 143 US dollars in June, 2008 and price decrease to 30 US dollars in December, 2015. In international market, there is no any international institution to stabilize the commodity prices whose economy only depends on it. It is competitive market and huge competition on commodity prices. By the way, most of the commodity prices remain the same for three decades.

**ECONOMIC STRUCTURE OF ECOWAS**

In West Africa, with about 200 million inhabitants, Nigeria has a vast natural resource. It has about 34 minerals which includes iron ore, gold, coal, tin, and uranium…etc. In addition to oil, there are also opportunities for fertilizer and liquefied gas production. With the average production of 2.3 million barrels of crude oil per day, Nigeria is the first crude oil exporter in Africa continent and tenth largest in the world rank. Lastly, it has a vast extent of ground of 923 768 km². Farmland is about 70 million hectares of its area. In spite of the country’s great agricultural potential, only 50% of the total farmland is cultivated in Nigeria. Add to this fruitless farming, agricultural productivity level is so low, because of the lack of modernization. Nigeria relies on the important of food to meet its domestic demand by consumer, with the import bill for wheat, sugar, rice and fish approximately 7 billion USA dollars per annum in 2012. According to data above, Nigerian economy cannot be called as diversified economy. There is a lack of diversification in Nigerian economy. The industry and manufacturing share is so low and has been dwindling. The proportion of manufacturing sector in the GDP declined to 6% in 1985 from 4% in 2011. And also decline in share of industry sector from 44% in 1980 to 41% in 2011. Share of Agriculture sector increase from 28% in 1980 to 33% in 2011. Consequently on diversification, crude oil as primary products continue to dominate the Nigerian economy. Economic growth was not created through a structural change of the economy. Sources as an engine of economic growth need to be diversified for enhanced the economy. Nigeria has the lion share in ECOWAS and 67 % of GDP of ECOWAS was related to Nigeria.

**Figure 2: GDP share in ECOWAS (period 1970-2012)**

Conversely, there is limited impact of commodity-driven growth on employment (United Nations Economic Commission, 2013). For instance, Angola is a commodity dependent country and 98
percent of its export earnings are from oil and oil sector employ %1 of employment. This ration is little bit more for Nigeria.

Figure 3: Export share in ECOWAS (period 1980-2012)


On the other side, increase in primary commodity prices since the second half of 2009, and to strong demand for African products from China and other emerging economies boost African countries. For instance, Coffee prices remain mostly the same from 1962 to 2012. Coffee (Robusta) producers in West Africa as Toge, Cote D’lvoire, Ghana and Guinea suffered from steady market prices. Hence, there is no any improvement on transformation and diversification concepts.

Figure 4: Price of Coffee-Robusta (Period: 1962-2012)

Source: Calculations based on UNCTADStat, accessed 13 April 2015
Africa’s trade such as exports and imports increased in value terms by 28.3 per cent and 18.6 per cent, respectively, in 2010 and by 14.5 per cent and 19.5 per cent in 2011. (World Bank, 2012).

In globalization issues, Africa’s ability to take advantage of trading opportunities has always been a divisive issue for economists. Data above indicate that the Africa continent’s share in world exports has declined sharply, from about 5.5 percent in 1975 to about 2.5 percent in 2002 (Bora & Roy, 2006). In 2012, the Africa continent has the same shares of world exports and world GDP (http://unctad.org/en/pa-ges/Statistics.aspx).

Triggering commodity-based industrialization as an engine of growth and economic transformation is a new concept of being a developed country. Commodity is mostly called for...
mining sector products in post-colonial term. It is so important, especially when African countries became independent after 1960s.

In literature, Kuznets (1966) viewed structural transformation as one of six stylized facts of economic development. He distinguished between two phases of structural transformation. In the beginning of the development process, an economy allocates most of its resources to the agricultural sector. As the economy develops, resources are reallocated from agriculture into industry and services. This is the first phase of structural transformation. In the second phase, resources are reallocated from both agriculture and industry into services. The general finding is that developed countries all followed the same process of structural transformation above (Kuznets, 1966; Maddison, 1989). Developed countries are called as diversified economies.

But according to current literature (Bah, 2010) developing countries pursued different paths of structural transformation that deviate from that of developed countries in different ways. Contrary to the developed countries, developing countries are following very distinct paths of structural transformation such as Malaysia, Thailand, Brazil and Ghana.

Although available natural resources differ significantly across the countries changes in Brazil, Malaysia, Thailand, and Ghana, rapid growth was accompanied by significant structural. The share of agriculture in total GDP declined in all these countries during the transformation period between 1965-2005. In terms of initial sectorial structure, Malaysia and Thailand are the most comparable to Ghana because of the importance of agriculture in their economies. However, despite similar initial agricultural shares in their economies, Malaysia and Thailand experienced different structural changes. In Malaysia, agriculture grew an average of 5.9 percent annually and acted as a driver of GDP growth during the transformation period (Breisinger et al, 2008:4). Brazil was the world’s largest coffee producer. Thus, agriculture acted as a driver of GDP growth during the transformation period in Brazil too.

Ghana is richly endowed with mineral resources includes gold, diamonds and world’s second-largest cocoa producer. The share of Industry doubled in Ghana and Agriculture share in GDP significantly declined between 1970-2012. By the way, Ghana discovered offshore oil and gas in 2004.

In ECOWAS countries, the decline in agriculture’s GDP share resulted from increases in industry’s share and especially manufacturing except Togo, Sierra Leone, Liberia and Guinea.

Figure 7: Agriculture share in GDP (period 1970-2012)
The share of Industry doubled in Ghana, Nigeria and significantly increased in Gambia, Senegal and Mauritania. Mali tripled its industry share in GDP.

Figure 8: Industry share in GDP (period 1970-2012)

Malaysia is an accomplished case. In Malaysia, agriculture grew an average of 5.9 percent annually and acted as a driver of GDP growth during the transformation period. At the same time, the importance of industry in the economy significantly increased because of the much higher growth rate in manufacturing compared with all other sectors (Breisinger et al, 2008:5). Thus Malaysia succeed the transformation from agriculture to Industry. A case from Malaysia energy sector is Petronas. Petronas is a Malaysian oil and gas company which was founded in 1974 wholly owned by the Government of Malaysia. And later, Malaysia adds value and creates international energy company. Petronas is very well-known energy company in world energy sector. Malaysia diversified their export and hence transforms the economy from agriculture to Industry.
In the class of models of structural transformation discussed above that productivity in resources. In Africa, resources flow from the most productive sector to the less productive sector. Moreover, the proportion of agriculture in output is so low in Africa. A few research (OECD, 2013:92) demonstrate that Agriculture sector proportion in total employment is very high. This indicates that agriculture sector is very unproductive and ineffective. Undoubtedly, there is vast literature that demonstrates that Africa is very unproductive in agriculture but increasing the productivity in agriculture is so critical for employment and to reduce poverty and nutrition in the Africa continent. On the other hand, the proportion of service sector in employment is high in Africa (Bah, 2010). This is also a result of low productivity in services. The biggest sub-sector for services is retail and trade which is primarily informal. For instance, data from the International Labor Organization (OECD, 2013:148) on Mali indicates that retails and trade employs 67% of the total workers in services. In addition, 10% of service employees work for other households. Lautier (2000) reported that more than 70% of total workers in Mali's informal sector did not obtain any education. In African continent, these circumstances are similar.

The share of service sector in GDP of Mali was 15% in 1970 and increased 36% in 2012. This ration for Gambia was 41% in 1970 and became 62% in 2012. There is a decline in Service sector for Nigeria economy. It was 30% in 1970 and decreased to 26% in 2012.

On the other side, energy sector has the same distinctive feature in African countries. In addition to agriculture sector, energy sector share in total employment is very low too. For instance, Angola has rich unexploited reserves of mining. The country produces over 650 million barrels of oil per year in 2013 and it is the second largest producer in Africa, after Nigeria. The oil sector is the backbone of the Angolan economy, accounting for 98% of exports and 47% of the country’s GDP (http://unctadstat.unctad.org, 2015). But oil sector employed less than 1% of total employment. Furthermore, the main revenue that generated from the oil sector has not trickled down to ordinary Angolan citizens, mainly because of its capital intensive nature. Additionally, the industry is operating as an enclave, with untapped upstream and downstream activities which, if exploited could create broad-based employment opportunities (OECD, 2013:92).

CONCLUSION
After being independency of African countries to today, the commodities have shaped Africa’s economy. When prices were high on primary products which are produced, economy was good; when prices dipped such as a boat into the waves, so did the whole resource based economies. However, the economists support this contradiction by the theories as specialization and others. There is a paradox on growth and development. Europeans offer and support the same development program and planning for developing countries to promote them to upper class called developed countries; do it what you have and specialize on it. The pattern of specialization is at the core of international trade theory. A consequence of international trade is that countries are not required to produce all their consumption goods, instead they can specialize in the production of certain goods in exchange for others. Although the specialization concept, Developed countries, especially EU subsidy union` agriculture sector by 95 billion euro in The Common Agricultural Policy of EU (European Commission, 2015).

The studies show that African countries are adding value to their commodities and developing local backward and forward linkages to the soft, hard and energy commodity sectors. But the depth of linkages varies among countries (ECOWAS) and value addition remains generally limited, mainly because of country- or industry-specific constraints that require strategic and systematic industrial policies include high tariff barriers which against WTO idea.

One of the probable consequences is “Dutch Disease” that explains the process of soaring price levels crowding out the non-resource base economy. Angola and Nigeria stand out as an example of “Dutch disease”. Thus, crude oil can be called as a curse for Nigeria economy.

In this paper we examined also export diversification and Structural Transformation of ECOWAS members. The composition of exported products in resource-dependent countries was poorly diversified and less dependent on technologically sophisticated than in other countries. This is the other characteristics of resource-dependent countries.

Structural Transformation is a main component for economic development of Africa not only for ECOWAS. All Developed countries pursued the same process of structural transformation by using different trade policies. But, this paper examine that the developing countries should construct their own independent trade policies to be developed ones. For instance, “specialization” as one of the extant theories is used a few century ago by European countries, thus, they became developed –capitalist- countries. But today, it is worthless and unprofitable.

Contemporary trade theories was used in a few centuries ago too in international trade to make more profit. “Maximizing profit in any circumstance by human being” approach is still extant in domestic or international trade. This is the main challenge to cope with the Developed countries and their price policies.

Ultimately, it is so difficult to implement the structural transformation and diversification in West African countries. Economic transformation has been largely elusive in most African countries despite the impressive GDP growth.

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